

5.8 UTILITIES AND SERVICE SYSTEMS (SOLID WASTE)

1. INTRODUCTION

The Utilities and Service Systems section of the Initial Study addresses water, wastewater, stormwater, and solid waste. Given that water, wastewater, and stormwater were determined in the Initial Study to result in no impact or a less than significant impact, this section provides an analysis of solid waste issues. This section addresses potential impacts on existing and planned capacity of permitted landfills and solid waste treatment facilities. The section evaluates whether sufficient capacity is available to accommodate materials removed from the site, including green waste, inert debris, and impacted soil.

2. ENVIRONMENTAL SETTING

Regulatory Framework

State Regulations

Porter-Cologne Water Quality Control Act

California Water Code Section 13172 requires the State Water Resources Control Board to adopt standards and regulations to regulate disposal of wastes to assure protection of water quality. Those regulations are set forth in California Code of Regulations, Title 23, Division 3, Chapter 15 (for hazardous waste), and Title 27, Division 2 (for non-hazardous waste). The regulations include provisions addressing cleanup actions. The regulations provide that wastes, pollutants, or contaminated materials removed from a site being cleaned up at the direction of a public agency must be classified and then disposed of in a location appropriate to its classification.

Assembly Bill 939 - California Integrated Waste Management Act of 1989

The State Legislature passed the California Integrated Waste Management Act of 1989 (AB 939) to improve solid waste disposal management with respect to (1) source reduction, (2) recycling and composting, and (3) environmentally safe transformation and land disposal. AB 939 mandates jurisdictions to meet a diversion goal of 50 percent by 2000 and thereafter.

AB 939 requires that all counties and cities develop a comprehensive solid waste management program that includes a Source Reduction and Recycling Element (SRRE) to address waste characterization, source reduction, recycling, composting, solid waste facility capacity, education and public information, funding, special waste (asbestos, sewage sludge, etc.), and household hazardous waste. It also requires counties to develop a Siting Element that addresses the need for landfill/transformation facilities for 15-year intervals; and it also mandates all cities and counties to prepare and submit Annual Reports that summarize the jurisdictions' progress in reducing solid waste. Oversight of these activities, which was set up under the aegis of the California Integrated Waste Management Board (CIWMB), was transferred to the California Department of Resources Recycling and Recovery (CalRecycle) as of January 1, 2010.

Senate Bill 1374 – Construction and Demolition Waste Materials Diversion Requirements

Senate Bill 1374 was signed into law in 2002 to assist jurisdictions with diverting construction and demolition waste material. California Code of Regulations (CCR) 14, Division 7, Chapter 3, Article 5.9 sets forth minimum standards for construction and demolition debris and inert debris transfer and processing and provides definitions for construction and demolition waste and inert materials. Under this regulation, construction debris and inert debris are defined as specific types of solid waste that present a different potential threat to public health and safety and the environment than typical municipal solid waste, thus, can be handled with different regulatory oversight. “Construction and demolition debris” means source separated or separated for reuse solid waste and recyclable materials, including commingled and separated materials, that result from construction work, that are not hazardous, as defined in CCR, Title 22, Section 66261.3 et seq., and that contain no more than one percent putrescible wastes by volume calculated on a monthly basis and the putrescible wastes do not constitute a nuisance. Construction and demolition debris includes only the following items:

- A) Components of the building or structure that is the subject of the construction work including, but not limited to, lumber and wood, gypsum wallboard, glass, metal, roofing material, tile, carpeting and floor coverings, window coverings, plastic pipe, concrete, fully cured asphalt, heating, ventilating, and air conditioning systems and their components, lighting fixtures, appliances, equipment, furnishings, and fixtures;
- B) Tools and building materials consumed or partially consumed in the course of the construction work including material generated at construction trailers, such as blueprints, plans, and other similar wastes;
- C) Cardboard and other packaging materials derived from materials installed in or applied to the building or structure or from tools and equipment used in the course of the construction work; and
- D) Plant materials resulting from construction work when commingled with dirt, rock, inert debris or construction and demolition debris

As defined under CCR 14, Division 7, “inert debris” means solid waste and recyclable materials that are source separated or separated for reuse, do not contain hazardous waste (as defined in CCR, Title 22, Section 66261.3 et seq.) or soluble pollutants at concentrations in excess of applicable water quality objectives and do not contain significant quantities of decomposable waste. Inert debris may not contain more than one percent putrescible wastes by volume calculated on a monthly basis and the putrescible wastes shall not constitute a nuisance. “Type A inert debris” includes but is not limited to concrete, fully cured asphalt, glass, fiberglass, asphalt or fiberglass roofing shingles, brick, slag, ceramics, plaster, clay and clay products. Type A inert debris is waste that does not contain soluble pollutants at concentrations in excess of water quality objectives and has not been treated in order to reduce pollutants.

As defined under CCR 14, Division 7 “Inert Debris Engineered Fill Operation” means a disposal activity exceeding one year in duration in which fully cured asphalt, uncontaminated concrete, brick, ceramics, clay and clay products, which may be mixed with rock and soil, are spread on land in lifts and compacted under controlled conditions to achieve a uniform and dense mass which is capable of supporting structural loading

as necessary, and having other characteristics appropriate for an end use approved by all governmental agencies having jurisdiction (e.g., roads, building sites, or other improvements) where an engineered fill is required to facilitate productive use of the land. The engineered fill shall be constructed and compacted in accordance with all applicable laws and ordinances and shall be certified by a Civil Engineer, Certified Engineering Geologist, or similar professional licensed by the State of California.

Los Angeles County

Pursuant to AB 939, each County is required to prepare and administer a Countywide Integrated Waste Management Plan (ColWMP), including preparation of an Annual Report. The ColWMP is comprised of the County's and cities' solid waste reduction planning documents plus an Integrated Waste Management Summary Plan (Summary Plan) and a Countywide Siting Element (CSE). The Summary Plan describes the steps to be taken by local agencies, acting independently and in concert, to achieve the mandated state diversion rate by integrating strategies aimed toward reducing, reusing, recycling, diverting, and marketing solid waste generated within the County. The County's Department of Public Works (Public Works) is responsible for preparing and administering the Summary Plan and the CSE. The Summary Plan for the County was approved by CalRecycle on June 23, 1999. The CSE was approved by CalRecycle on June 24, 1998. A revised CSE was completed in 2012. An EIR for this document is expected to be available for public review in 2014, with submission to CalRecycle in 2016.

In addition, as part of its regulatory efforts, the County has prepared a long-term master plan which describes how the County will manage solid waste through the year 2050. The 2050 Plan identifies measures to meet the landfill needs over the time horizon, such as conserving in-County disposal capacity, implementing waste diversion programs, fostering alternatives to landfills, and identifying funding resources to carry out the plan.

City of Carson Solid Waste Management Plan

The City of Carson Solid Waste Management Policy Plan (CiSWMPP), adopted in 1994, established a goal of reaching a 70 percent solid waste diversion rate by 2020. The City and the private sector operating within the City, have developed waste management infrastructure programs and facilities and, through the Bureau of Sanitation and private sector, have implemented a myriad of innovative source reduction, recycling, composting, and reuse programs. Due to the strength of the City's waste management infrastructure and programs, the City achieved a 49 percent waste diversion rate in 1999 and, currently, the Bureau of Sanitation is conducting a waste stream analysis to validate that the City has reached the AB 939 diversion mandate of 50 percent. According to the City, reaching the 70 percent diversion rate would require continued evaluation, planning, and implementation of comprehensive, new, and innovative diversion programs.¹ This waste stream analysis is the tool the City will use to analyze, quantify and identify new opportunities to promote and increase source reduction, reuse, recycling, composting, and other solid waste diversion efforts to reach the 70 percent diversion rate. Interim goals include the following:

1. Maximize waste diversion: All recycling, source reduction, and re-use programs operated by the Bureau of Sanitation and the General Services Department will need to be continued and expanded. The Bureau's Targeted Materials Strategy must be enhanced and new materials added.

¹ City of Carson, <http://www.californiawasteservices.com/carson.html>, accessed May 20, 2014.

The proposed Waste Hauler Permit Ordinance should be acted upon and its attendant recycling programs developed and implemented.

2. Provide adequate recycling facility development: The Bureau of Sanitation's Solid Waste Resources Infrastructure Strategy Facilities Plan addresses the facilities the Bureau requires to support its current and future solid resources management activities.
3. Provide adequate collection, transfer, and disposal of mixed solid and household hazardous waste: The Bureau of Sanitation will continue its residential curbside waste, household hazardous waste, and small business hazardous waste collection programs.
4. Project and environmentally sound management operation: General Services Department will continue to operate its vehicle maintenance and inspection program. The Bureau will comply with alternative fuel regulations by taking actions including purchasing alternative fuel trucks to replace fleet vehicles as they are retired, and modifying fuel stations and maintenance facilities to accommodate the new vehicles.
5. Provide cost-effective waste management: Maximize diversion at the lowest cost through purchasing power with Recycled Content Procurement and Purchasing Price Preferences Ordinances and Buy Recycled Challenge 2000 and Prima 2000 programs.
6. Sustainable development: All City departments will lend their support and promote implementation of sustainable development policies and guidelines coordinated and developed by the Bureau of Engineering's expanded Citywide Sustainable Development Program and the City Departments' Sustainable Design Task Force.

Existing Conditions

This section describes existing conditions on-site and the local and regional existing solid waste treatment and management facilities that receive or treat impacted solid waste, green waste and inert construction debris.

On-Site Conditions

The approximately 44-acre site is developed with 285 single-family homes. Residential properties are generally landscaped with plantings, walls and fences, and hardscape, such as patios and walkways. Results of environmental investigations show that the site has been impacted with petroleum hydrocarbons and related constituents and non-petroleum related constituents associated with former crude oil storage during the period prior to residential redevelopment. Prior to development, three concrete oil storage reservoirs, with a total capacity of 3.5 million barrels, were located on the property. The reservoirs were partially in-ground and partially aboveground with earthen berms. Petroleum hydrocarbon and related volatile organic compound (VOC) and semi-volatile organic compound (SVOC) constituents occur in shallow and deep soils and VOCs and methane resulting from degradation of petroleum hydrocarbons are present in subsurface soil vapor. Remnants of concrete slabs from the demolished oil storage tanks are also buried on the site.

Waste Treatment Facility

Soil Safe, Adelanto, California

The RP intends to transfer impacted soil to a permitted waste treatment facility. More specifically, the impacted soil would be transported to the Soil Safe facility in Adelanto, which is located approximately 97 miles northeast of the City of Carson. The facility has the largest volume thermal treatment capacity in California. The facility and the Soil Safe thermal desorption process are designed to treat organic soil contaminants. Disposal requirements include composite sampling, with five samples for 1,000 cubic yards (CY) and one additional sample for each additional 500 CY greater than 1,000 CY. Sampling and analysis requirements for sites contaminated by waste oil or some other non-virgin petroleum product or virgin petroleum products from something other than a leaking underground storage tank is as follows:

- Total metals (TTLC test)
- TPH (EPA test 418.1 or 8015 modified)
- BTEX/VOC (EPA test 8020 and 8010 or 8260)
- PCBs (waste oil impacted only)
- Additional data as required

Thermal desorption is a technology that utilizes heat to increase the volatility of contaminants thereby separating the contaminants from the solid matrix (typically soil, sludge or filter cake). Thermal desorption is not incineration, and it is frequently referred to as "low temp" thermal desorption to differentiate it from high temperature incineration. The volatilized contaminants are then either collected or thermally destroyed. A thermal desorption system has two major components; the desorber and the off-gas treatment.

Direct fired rotary desorbers have been used extensively over the years for petroleum contaminated soils and soils contaminated with Resource Conservation and Recovery Act (RCRA) hazardous wastes as defined by the USEPA. The majority of these systems use a secondary combustion chamber (afterburner) or catalytic oxidizer to thermally destroy the volatilized organics. The maximum practical solids temperature for these systems is approximately 750 to 900°F depending on the material of construction of the cylinder. Total residence time in this type of desorber normally ranges from 3 to 15 minutes. Treatment capacity at the Soil Safe, Adelanto, facility is approximately 1,480 tons or 1,096 CY per day. The weekly treatment capacity, assuming a 5-day week, would be 5,480 CY.

In addition, the Adelanto facility has an approximately 37,500-squarefoot warehouse that provides storage for soils, if needed, prior to treatment. The warehouse serves to eliminate rainwater contact and run-off. In addition, the warehouse has a floor construction system composed of two geosynthetic liners and a one-foot-thick concrete and a leachate collection system with built in monitors for identifying any potential subsurface leaks, a custom engineered thermal unit to remove and destroy organic contaminants with minimal impact on greenhouse gas emissions. Storage capacity is approximately 30,000 tons or approximately 22,222 CY.

Solid Waste Management Facilities

Green Waste Management

The RP intends to transfer green waste to a permitted waste treatment facility, specifically the Carson Transfer Station and Materials Recovery Management, Inc. facility located at 321 Francisco Street. This transfer station, which operates in a partnership between Waste Management, Inc. and the City of Carson, has the capacity to process approximately 333 tons or approximately 247 CY of green waste per day. Green waste consists of cuttings, shrubs, brushes, tree trimmings, and wood waste such as branches and stumps, which can be chipped, composted, or used as daily cover at landfills. Green waste may also be used at landfill sites as alternative daily cover to reduce the use of virgin soil covers. From the Carson Transfer Station, green waste is transferred to one of the County's several composting sites. In Los Angeles County, grinding and composting facilities have the capacity to process approximately 3,783 tons or 2,802 CY of green waste per day.²

Inert Debris Management

Inert waste, such as the hardscape removed from residential properties, is waste that is neither chemically nor biologically reactive and will not decompose. Over the last decade the County has encouraged waste diversion and recycling activities at landfills through Waste Plan Conformance Agreements. These agreements, which require a landfill operator to implement specific waste diversion and recycling programs to assist jurisdictions in achieving the mandates of AB 939, may include programs and activities such as salvaging demolition and construction wastes for road construction, erosion control, and other uses. Active landfills that have Waste Conformance Agreements with the County include Chiquita Canyon, Lancaster, and Sunshine Canyon City/County Landfills. The Azusa Land Reclamation Landfill is the County's one permitted Inert Waste Landfill. As of 2011, the remaining capacity of this landfill is estimated at 64.2 million tons or 53.5 million cubic yards. Azusa has an average daily disposal rate of 300 CY and a maximum permitted daily capacity of 5,462 CY.³ Given the remaining permitted capacity and at the average disposal rate of 357 tons per day in 2011, this capacity would be exhausted in 576 years.⁴

Several Inert Debris Engineered Fill Operation (IDEFO) facilities also operate under State permit provisions throughout Los Angeles County. An IDEFO means an activity that compacts inert debris under controlled conditions to achieve a uniform and dense mass capable of supporting structural loading. End uses include roads, building sites, or other improvements where an engineered fill is required to facilitate productive use of the land.⁵ State-permitted IDEFOs in Los Angeles County include the following:

- Atkinson Brick Company
- Chandler's Palos Verdes Sand & Gravel
- Nu-Way Arrow
- Peck Road Gravel Pit

² Los Angeles County Department of Public Works, *Green Waste Management Resources, Guide for Los Angeles County Residents and Businesses*, April 24, 2013, page 5.

³ Los Angeles County Department of Public Works, *2011 Annual Report, Los Angeles County Countywide Integrated Waste Management Plan*, page 48 August 2012.

⁴ Los Angeles County Department of Public Works, *2011 Annual Report, Los Angeles County Countywide Integrated Waste Management Plan*, page 26, August 2012.

⁵ CCR Title 14, Division 7, Chapter 3, Article 5.95, Section 17388(l).

- Durbin Inert Debris Engineered Fill Site
- Hanson Aggregates (Livingston-Graham)
- Lower Azusa Reclamation Project
- Montebello Land & Water Company
- Reliance Landfill
- Sun Valley Landfill
- United Rock

CalRecycle reclassified Nu-Way Arrow Reclamation, Inc., Nu-Way Live Oak Reclamation, Inc. and Calmat Reliance Pit #2, and Peck Gravel Road Pit to an IDEFO in 2006. These facilities and other IDEFO handled approximately 1.86 million CY in 2011, with a maximum daily Solid Waste Facility Permit (SWFP) capacity of 24,129 CY.⁶ The average daily disposal in 2011 was approximately 6,112 CY, which indicates an excess maximum daily disposal capacity of approximately 18,017 CY.⁷

3. METHODOLOGY AND THRESHOLDS

Methodology

The analysis of impacts related to disposal of materials removed from the site is based on the evaluation of existing treatment and recycling facilities' capacity to accommodate the demand of the RP's Proposed Project and other alternatives. Because the RAP entails the excavation and disposal of impacted soils as well as green waste, construction waste, and inert debris, the analysis describes the amount of waste that would be generated by implementation of the RAP and whether sufficient landfill or treatment capacity is available to receive the generated waste. The amount of waste is determined by multiplying the estimated soil, hardscape, and green waste removed per single-family lot and estimating the maximum daily export of these materials.

Thresholds of Significance

Appendix G of the CEQA Guidelines provides a set of screening questions that address impacts with regard to solid waste. These questions are as follows:

Would the project:

- a) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs; and
- b) Comply with federal, state, and local statutes and regulations related to solid waste.

As determined in the Initial Study, which is contained in Appendix A of this EIR, the project would comply with federal, state, and local statutes and regulations related to solid waste transport and disposal. As such, no further analysis of this topic is necessary.

⁶ Los Angeles County Department of Public Works, 2011 Annual Report, Los Angeles County Countywide Integrated Waste Management Plan, Appendix E-2, Table 2, August 2012.

⁷ *Ibid.*

For purposes of this analysis, the project would have a significant impact on solid waste if:

- SW-1** The project generates solid waste in excess of the permitted capacity of the disposal facilities serving the project.

4. PROJECT ANALYSIS

Project Design Features

Under the RP's Proposed Remedy, soils would be excavated from residential properties where results of the previous site assessments indicate that RAOs and the more stringent of the health risk-based or leaching to groundwater criteria are not met under existing conditions. Soils would be excavated to a depth of 5 feet below existing grade with targeted excavation to 10 feet below existing grade at some properties from both landscaped areas and areas currently covered by hardscape, including walkways, driveways, patio areas, and hardscape associated with landscaping Table 2-2, *Volumes of Material by Activity*, in Chapter 2, Project Description, provides a summary of the quantities of materials anticipated to be removed during remediation activities. During the preparation of the Property-Specific Remediation Plans (PSRPs), the specific excavation areas for each property would be identified. In some cases, the volume of soil to be excavated for a property would be less than the average value.

Excavated soils would be loaded directly into an awaiting transport vehicle (i.e., end-dump truck, dump truck, or covered soil bin) using an excavator, front-end loader or skid-steer mini-loader. To the extent possible, impacted soil would be direct loaded into approved waste containers using the excavator for transport to the appropriate recycling, treatment, or disposal facility. Loaded trucks would be covered with tarps prior to leaving the site. In the unlikely event that it is necessary to temporarily stockpile soil onsite the soils would be placed on plastic sheeting and covered with plastic, or would be temporarily placed in a covered bin. Care would be taken to ensure that all loose soil would be brushed off the transporter and properly managed prior to covering with a tarp.⁸ Vehicles would be decontaminated before leaving the site. Impacted soils would be transported to Soil Safe's Thermal Desorption facility located in Adelanto, California or a closer equivalent treatment/disposal facility subject to regulations subject waste tracking manifests. During transportation, the excavated soils would be properly containerized and secured to ensure that the any solid waste or hazardous materials would not be accessible by the general public.

In addition to the excavated soils, other materials consisting of construction and demolition debris and inert debris, such as fencing material, residual concrete, and cured asphalt would be removed as part of the excavation process, where necessary. Construction and demolition debris and inert debris would generate a maximum daily export as shown in Table 2-2 in Chapter 2 of this EIR. Inert concrete and asphalt debris would be processed at Dan Copp Crushing in Santa Fe Springs, where it would be crushed and recycled for roadbed. Lesser quantities of inert materials, such as demolished fencing, would be disposed at a state-permitted IDEFO or the Azusa Land Reclamation Landfill, which receive construction and demolition debris and inert debris for re-use.

It is anticipated that an average of approximately one truck load of green waste would be removed from each property (see Table 2-2 in Chapter 2 of this EIR for volumes). Green waste would likely be loaded into roll

⁸ *The purpose of covering materials with a tarp is to manage exposed impacted soil from spreading on the site, to prevent discharge to storm drains or other drainage areas, and to prevent any unacceptable emissions of dust or VOCs.*

off bins provided by the City of Carson's contracted/franchise waste company or placed in bins provided by the contractor and hauled to an appropriate facility.

Analysis of Project Impacts

Threshold SW-1: The project would have a significant impact on solid waste if it generates solid waste in excess of the permitted capacity of the disposal facilities serving the project.

Impact Statement SW-1: *Excavated soils would be treated to remove COCs and re-used; construction waste and inert debris would be recycled through a permitted IDEFO or similar recycling process; and green waste would be mulched and re-used. Adequate treatment and re-use and recycling capacities exist to accommodate maximum daily waste exports under the project and the Expedited Implementation Option. Because waste generated by ground clearing and excavation would be diverted from landfills, the RP's Proposed Remedy and the Expedited Implementation Option would have a less than significant impact with respect to the permitted capacity of disposal facilities.*

The RP's Proposed Remedy would result in excavated soil transported off site for treatment. The maximum generation rate of waste soil export would be approximately 293 CY per day under the base remedy. Because impacted soils are COC-containing, they would require treatment or disposal by an appropriate approved facility. These materials would not be accepted at Class III landfills, which are intended for municipal wastes. It is anticipated that excavated soils would be treated (cleaned) at the Soil Safe facility in Adelanto, California or similar facility. As described above, this facility has a daily treatment capacity of approximately 1,096 CY and a weekly capacity of approximately 5,480 CY. The anticipated demand (293 CY per day) would not exceed the Adelanto facility's treatment capacity of 1,096 CY per day. Because the soils would be decontaminated and available for re-use, excavated soils would not require disposal at a solid waste facility. Therefore, impacts on the permitted capacity of disposal facilities with respect to impacted soils would be less than significant.

The RP's Proposed Remedy would remove demolition waste, such as fencing, concrete, and cured asphalt, which are considered construction and demolition debris or inert debris. The total generation of demolition debris would be 9,855 CY (219 properties x 45 CY). The maximum daily generation of construction and demolition debris or inert debris would be approximately 56 CY. The majority of inert waste would be concrete and asphalt debris, which would be processed at the Dan Copp crushing facility. The resulting materials would be re-used in roadbed and, thus, diverted from landfills. The daily processing capacity of the Copp facility is approximately 1,300 CY.⁹ The project's maximum daily output of inert waste would be 56 CY, which would not exceed the daily capacity of the processing facility. A lesser amount of construction debris, such as fencing would also be generated. Because the quantity of other inert construction debris would be minor, and would not exceed 56 CY per day, it would be miniscule compared to available capacity for inert materials in the County. For instance, the Azusa Land Reclamation Landfill has an average daily disposal rate of 300 CY and a maximum permitted daily capacity of 5,462 CY.¹⁰ The Countywide Waste Management Plan Annual Report estimates that, at the average disposal rate of 300 CY per day, the remaining capacity of the Azusa Land Reclamation Landfill of 53,512,000 CY would be exhausted in 576

⁹ Telephone interview with dispatcher at the Dan Copp Corporate Headquarters, Yorba Linda, CA, October 24, 2014. The dispatcher stated that the Santa Fe Springs facility has the capacity to process over 2,000 tons per day (approximately 1,333 CY).

¹⁰ Los Angeles County Department of Public Works, 2011 Annual Report, Los Angeles County Countywide Integrated Waste Management Plan, page 48, August 2012.

years.¹¹ Because of the available remaining capacity at County facilities, the estimated volume of inert waste from the RP's Proposed Remedy would not exceed the County's permitted daily or long-term capacity to receive inert waste at any landfill site. Inert waste could also be processed at IDEFOs, which handle approximately 212 CY of inert debris per day. Because inert debris generated by the implementation of the RAP would not require disposal at a solid waste facility, impacts on the permitted capacity of disposal facilities with respect to construction and demolition debris and inert debris would be less than significant.

The implementation of the RAP would generate green waste (landscaping plants, sod, etc.) with a maximum generation of approximately 60 CY per day. Green waste would be delivered to the Carson Transfer Station and Materials Recovery Management facility in the City of Carson, which has the capacity to manage approximately 247 CY per day. These materials are then transferred to a composting site. In Los Angeles County, grinding and composting facilities have the capacity to process approximately 3,783 tons or 2,802 CY of green waste per day.

The maximum generated green waste would not exceed the daily capacity of the facility to manage green waste. In addition, green waste would most likely be re-used as composting material (although other re-uses are possible) and would not require disposal at a solid waste facility. Therefore, impacts on the permitted capacity of disposal facilities with respect to green waste would be less than significant.

Remediation activities would also generate relatively small amounts of daily waste associated with recyclable and non-recyclable packaging materials from piping and construction supplies, debris from the restoration process (e.g., plant containers, pallets), employee lunches and other minor sources. Cardboards, recyclable plastics, metals, and glass would be placed in bins and disposed of as recyclable materials. Contractors would be responsible to arrange for appropriate trash removal from the site. Materials would be recycled to the extent feasible. Residential properties would not be occupied during remediation and, as such, the general (recyclable and non-recyclable) household waste stream would be eliminated at the remediation sites. Because of the minor volume of non-recyclable materials and short-term, approximately six-year remediation activity, non-recyclable materials from the site are not anticipated to exceed the permitted capacity of Los Angeles County landfills. Therefore, these materials generated by the RP's Proposed Remedy would have a less than significant impact on landfill capacity.

Expedited Implementation Option

Under the Expedited Implementation Option, the number of properties being remediated at one time could increase. The expedited schedule would result in a higher daily rate of disposal demand because more clearing and excavation would occur concurrently; however total soil and ground-related wastes would remain the same at approximately 186,090 CY. Total hardscape debris and green waste would also be the same. However, because demolition and excavation would be expedited at twice the daily activity as the base remedy, the maximum daily export of cleared debris (green waste) is expected to increase to approximately 120 CY. Maximum daily export of inert hardscape (inert) waste is anticipated to be approximately 112 CY, and maximum daily export of excavated impacted soils is expected to be 586 CY. As described, above, the Soil Safe facility in Adelanto, California has a daily treatment capacity of approximately 1,096 CY and a weekly capacity of approximately 5,480 CY. Inert concrete and asphalt waste (up to 112 CY per day) would not exceed the capacity of the Copp facility, which can process approximately 1,300 CY per

¹¹ *Los Angeles County Department of Public Works, 2011 Annual Report, Los Angeles County Countywide Integrated Waste Management Plan, pages 26 and 48, August 2012.*

day.¹² A lesser amount of construction debris, such as fencing would also be generated. The quantity of these inert construction debris items would be minor, would not exceed 56 CY per day, and would be miniscule compared to the County's capacity to receive these inert materials. The anticipated demand of 586 CY of soil per day would not exceed the Adelanto facility's treatment capacity of 1,096 CY per day. State-permitted IDEFO facilities in Los Angeles County handle approximately 212 CY of inert debris per day. Waste generated by the removal of inert materials under the Expedited Implementation Option would not exceed the capacity of the available facilities. Green waste would be delivered to the Carson Transfer Station and Materials Recovery Management facility in the City of Carson, which has the capacity to manage approximately 247 CY per day. As such, the daily demand for green waste disposal would not exceed the capacity of existing waste management facilities. As with the RP's Proposed Remedy, debris generated under the Expedited Implementation Option would not require disposal at a solid waste facility and impacts on the permitted capacity of disposal facilities with respect to construction and demolition debris and inert debris would be less than significant.

5. ALTERNATIVES ANALYSIS

Analysis of Impacts Associated with Alternative 1 (No Project Alternative)

The No Project Alternative would not involve any removal of hardscape, excavation of soils or change to existing ground conditions that would require disposal of materials at any facilities. Therefore, the No Project Alternative would avoid any effects on the daily or overall capacity of existing facilities. Although the No Project Alternative would avoid the RAP's less than significant effects on disposal capacity, this Alternative would not meet the statutory requirements of the RAP.

Analysis of Impacts Associated with Alternative 2 (Excavation Beneath Landscape and Hardscape to 10 Feet Alternative)

Alternative 2 would involve excavation of soils to a depth of 10 feet at all properties requiring excavation. This Alternative would entail, on average, excavation of 1,222 CY of soil per property, for a total of approximately 294,600 CY of COC-containing soils. The maximum generation rate would be approximately 293 CY per day. Because these soils are COC-containing, they would require treatment or disposal by an appropriate approved facility, and it is anticipated that excavated soils would be treated (cleaned) at the Soil Safe facility in Adelanto, California or similar facility. As described above, this facility has a daily treatment capacity of approximately 1,096 CY and a weekly capacity of approximately 5,480 CY. The anticipated demand (293 CY per day) would not exceed the Adelanto facility's treatment capacity of 1,096 CY per day. Because the soils would be decontaminated and available for re-use, excavated soils would not require disposal at a solid waste facility. Therefore, Alternative 2 would not exceed the capacity of disposal facilities with respect to impacted soils.

Alternative 2 would remove approximately 10,845 CY (45 CY x 241 properties) of hardscape materials, such as fencing, concrete, and cured asphalt, which are considered construction and demolition debris or inert debris. The maximum daily generation of construction and demolition debris or inert debris would be approximately 56 CY. Inert concrete and asphalt waste would not exceed the capacity of the Copp facility,

¹² Telephone interview with dispatcher at the Dan Copp Corporate Headquarters, Yorba Linda, CA, October 24, 2014. The dispatcher stated that the Santa Fe Springs facility has the capacity to process over 2,000 tons per day (approximately 1,333 CY).

which can process approximately 1,300 CY per day.¹³ A lesser amount of construction debris, such as fencing would also be generated. The volume of other inert construction debris items (such as fencing) would be minor, would not exceed 56 CY per day, and would be miniscule compared to the County's capacity to receive these inert materials. Inert debris can be managed at the Azusa Land Reclamation Landfill or an IDEFO. As an example of capacity, the Azusa Landfill has an average daily disposal rate of 300 CY and a maximum permitted daily capacity of 5,462 CY.¹⁴ Inert waste could also be processed at IDEFOs, which handle approximately 212 CY of inert debris per day. The estimated volume of inert waste from Alternative 2 would not exceed the permitted capacity of Los Angeles County's existing permitted Inert Debris Engineered Fill Operations or the Azusa Land Reclamation Landfill. Because the inert debris generated by Alternative 2 would not require disposal at a solid waste facility, impacts on the permitted capacity of disposal facilities with respect to construction and demolition debris and inert debris would be less than significant.

The implementation of Alternative 2 would generate a total of approximately 3,374 CY of green waste (14 CY X 241 properties), with a maximum generation of approximately 60 CY per day. Green waste would be delivered to the Carson Transfer Station and Materials Recovery Management facility in the City of Carson, which has the capacity to manage approximately 247 CY per day. These materials are then transferred to a composting site. In Los Angeles County, grinding and composting facilities have the capacity to process approximately 3,783 tons or 2,802 CY of green waste per day. The maximum generated green waste would not exceed the daily capacity of the Carson facility or County facilities to manage green waste. Therefore, impacts on the permitted capacity of disposal facilities with respect to green waste would be less than significant.

Remediation activities would also generate relatively small amounts of daily waste associated with recyclable and non-recyclable packaging materials from piping and construction supplies, debris from the restoration process (e.g., plant containers, pallets), employee lunches and other minor sources. Cardboards, recyclable plastics, metals, and glass would be placed in bins and disposed of as recyclable materials. As with the RP's Proposed Remedy, the contractor would be responsible to arrange for appropriate trash removal. Materials would be recycled to the extent feasible. Because of the minor volume that would be generated, non-recyclable materials from the site are not anticipated to exceed the permitted capacity of Los Angeles County landfills. Therefore, Alternative 2 would have a less than significant impact on landfill capacity.

Analysis of Impacts Associated with Alternative 3 (No Excavation Beneath Hardscape – 5 Foot and Targeted 10 Foot Alternative)

Alternative 3 would involve excavation of soils to a depth of 10 feet at 219 properties. This Alternative would entail a total of approximately 83,930 CY of COC-containing soils. The maximum generation rate would be approximately 293 CY per day. As with the RP's Proposed Remedy, excavated soils would be treated (cleaned) at the Soil Safe facility in Adelanto, California or similar facility. As described above, this facility has a daily treatment capacity of approximately 1,096 CY and a weekly capacity of approximately 5,480 CY. The anticipated demand (293 CY per day) would not exceed the Adelanto facility's treatment capacity of 1,096 CY per day. Because the soils would be decontaminated and available for re-use, excavated

¹³ Telephone interviewer with dispatcher at the Dan Copp Corporate Headquarters, Yorba Linda, CA, October 24, 2014. The dispatcher stated that the Santa Fe Springs facility has the capacity to process over 2,000 tons per day (approximately 1,333 CY).

¹⁴ The Countywide Waste Management Plan Annual Report estimates that, at the average disposal rate of 300 CY per day, the remaining capacity of the Azusa Land Reclamation Landfill of 53,512,000 CY would be exhausted in 576 years.

soils would not require disposal at a solid waste facility. Therefore, Alternative 3 would not exceed the capacity of disposal facilities with respect to impacted soils.

With minor exceptions, such as some at-grade fencing materials, Alternative 3 would not remove hardscape materials. Thus, Alternative 3 would avoid the need for the disposal of approximately 9,855 CY (219 x 45 CY) of inert hardscape materials that would occur under the RP's Proposed Remedy. Therefore, Alternative 3 would have minimal effects on the Azusa Land Reclamation Landfill, which receives inert waste, or IDEFOs, which process inert waste.

The implementation of Alternative 3 would generate a total of approximately 3,066 CY of green waste (14 CY x 219 properties), with a maximum generation of approximately 60 CY per day. Green waste would be delivered to the Carson Transfer Station and Materials Recovery Management facility in the City of Carson, which has the capacity to manage approximately 247 CY per day. These materials are then transferred to a composting site. In Los Angeles County, grinding and composting facilities have the capacity to process approximately 3,783 tons or 2,802 CY of green waste per day. The maximum generated green waste would not exceed the daily capacity of the Carson facility or County facilities to manage green waste. Therefore, impacts on the permitted capacity of disposal facilities with respect to green waste would be less than significant.

Remediation activities would also generate relatively small amounts of daily waste associated with recyclable and non-recyclable packaging materials from piping and construction supplies, debris from the restoration process (e.g., plant containers, pallets), employee lunches and other minor sources. Cardboards, recyclable plastics, metals, and glass would be placed in bins and disposed of as recyclable materials. Because of the minor volume, non-recyclable materials from the site are not anticipated to exceed the permitted capacity of Los Angeles County landfills. Therefore, Alternative 3 would have a less than significant impact on landfill capacity.

6. CUMULATIVE IMPACTS

Seven related projects have been identified in the project study area. These development projects include the expansion of the Kaiser South Bay Hospital; the 676-unit Ponte Vista Mixed Use Residential development; the 204-unit Del Lago Apartments; the 352-unit 1311 Sepulveda Apartments; the Carson Shell Revitalization industrial/commercial complex; Carson Marketplace and The Boulevards at South Bay mixed-use project; and a day care facility. Excavations for pilings, basements, building pads, and other foundation features for residential and related uses are anticipated. With the exception of the Carson Shell Revitalization Project, any excavated soils that would not be balanced on site (exported) would likely be disposed of at inert facilities or used as fill at other building sites.

The Carson Shell Revitalization Project involves the re-use or expansion of the approximately 448-acre existing Carson Distribution Facility, approximately 155 acres of which is occupied by storage tanks and service facilities. The Revitalization Project is expected to occur over an approximately five-to-seven year period. Redevelopment would require the removal or relocation of certain pipes, pumps, storage tanks, and control facilities. It is anticipated that many of these facilities would be cleaned and disposed of at landfills that accept inert debris or, if not cleaned, disposed of at Class I landfills that accept potentially hazardous debris. Because the RP's Proposed Remedy does not anticipate the use of Class I landfills, no cumulative impacts with respect to Class I facilities is anticipated. The Shell Revitalization Project site is currently undergoing remediation (CAO 97-120), which involves excavations of tar and soil and the on- or off-site

management of excavated soil.¹⁵ Off-site treatment of soils would be similar to that of the RP's Proposed Remedy, which involves cleaning at the Soil Safe facility in Adelanto, California or a similar facility. As described above, this facility has a daily treatment capacity of approximately 1,096 CY and a weekly capacity of approximately 5,480 CY. With handling constraints (i.e., the amount of cubic yardage that could reasonably be extracted and shipped daily from the Revitalization Site); the phased time period of this alternative, which would occur over several years; and the excess capacity of 803 CY per day of the Adelanto facility (1,096 CY minus the project's 293 CY), it is expected that demand for treatment of the combined Shell Revitalization Project and the RP's Proposed Remedy would not exceed the capacity of the Adelanto facility.

Demolition and construction activities at other related projects (i.e., the Ponte Vista Project) would involve the removal or relocation of existing residential and commercial uses. The ensuing demolition debris would be categorized as inert materials and eligible for disposal at the County's inert waste facilities. The existing capacity of the County's inert waste management facilities includes the Azusa Land Reclamation Landfill, which has a remaining capacity of 53,512,000 CY and, at existing average daily disposal rate, is not expected to be exhausted for approximately 576 years. The inert debris from cumulative construction debris is not expected to exceed the County's permitted daily or long-term capacity to receive inert waste. Other waste associated with construction activities would be a combination of inert construction waste and non-recyclable debris from certain packaging materials, employee lunches, and other minor debris.

The long-term occupation of new residential units and commercial uses would also generate waste and create demand for solid waste disposal. These projects, in combination with the RP's Proposed Remedy, would contribute to the overall cumulative demand for landfill disposal. However, as discussed above, the RP's Proposed Remedy, which would generate demand for inert facilities, recycling of green waste, and treatment of soils, would have a very minor effect on municipal landfills. The County has a currently available capacity in municipal landfills of 129 million tons (in 2017) and an available capacity of approximately 78.7 million tons of capacity to serve cumulative development.¹⁶ The 2012 daily disposal rate in the County landfills was 19,997 tons per day versus a maximum daily capacity of 41,749 tons per day, resulting in an additional daily capacity of 21,752 tons per day.¹⁷ In addition, according to the Countywide Integrated Waste Management Plan 2011 Annual Report (published in August 2012), future disposal needs to 2027 which anticipates regional growth throughout the County, would be adequately met through the use of in-County and out-of-County facilities through a number of strategies that would be carried out over the years.¹⁸ Therefore, it is anticipated that the solid waste demand of related projects in combination with the RP's Proposed Alternative would not exceed the capacity of disposal facilities and would not be cumulatively significant.

¹⁵ *City of Carson, Carson Revitalization Project Specific Plan EIR (SCH No. 2010101015), February 2014, pages 3-25 to 3-26.*

¹⁶ *Los Angeles County Department of Public Works, Los Angeles County Integrated Waste Management Plan, 2011 Annual Report, August 2012, Page 18.*

¹⁷ *Ibid.*

¹⁸ *Los Angeles County Department of Public Works, Los Angeles County Integrated Waste Management Plan, 2012 Annual Report, August 2013, Page 31.*

7. MITIGATION MEASURES

The RP's Proposed Remedy as well as Alternative 1, Alternative 2, and Alternative 3 would result in less than significant impacts with regard to solid waste management. Therefore, no mitigation measures are required.

8. LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the implementation of the project design features, the RP's Proposed Remedy would result in less than significant impacts with regard to solid waste management.

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