

2.8 Solid Waste

2.8.1 Existing Conditions

2.8.1.1 *Existing Regulations and Programs*

Solid waste management has been recognized as an important regional issue in San Diego County. Prior to 1989, solid waste planning and management was the prime responsibility of individual jurisdictions. However, the California legislature changed this approach when its members enacted the Integrated Waste Management Act (IWMA) of 1989. The IWMA required jurisdictions to reduce their dependence on landfills for disposal of solid waste, and to ensure an effective and coordinated approach to safe management of all solid waste generated within the state. In October 1997, the County sold its active landfills and other solid waste collection assets to Republic Services, Inc. (Republic). Currently, solid waste generated by residents and businesses is disposed of locally at the landfill of the hauling contractor's choice. The following section discusses the seven active landfills, nine transfer stations, construction demolition and inert processing facilities, fifteen biomass processing facilities, and various recycling programs that currently serve the County's solid waste disposal service needs.

2.8.1.2 *Existing Solid Waste Disposal Facilities and Programs*

The Project site is currently vacant and, therefore, is not provided with solid waste disposal services. The current solid waste collection and disposal operator in both the Project-area portion of the County and within the City of Chula Vista is Republic, which also owns Otay Landfill located approximately 3 miles southwest of the Project site, and Sycamore Landfill located west of the City of Santee, approximately 17 miles northwest of the Project site. Pursuant to the City of Chula Vista's franchise agreement with Republic, both Otay and Sycamore Canyon are City-authorized landfills. The current operator of the Otay landfill is Otay Landfill, Inc. The remaining capacity in the landfill is approximately 24,514,904 cubic yards (CalRecycle 2012). The current permit (37-AA-0010) anticipates that Otay Landfill would be in operation until 2028 based on current waste generation rates. The Sycamore Landfill has a remaining capacity of approximately 42,246,551 cubic yards (CalRecycle 2011).

Landfills

Until 1997, the solid waste management system in San Diego County was serviced by eight landfill facilities. In March 1997, the San Marcos landfill facility was closed by court order. Currently, there are seven active landfills in the San Diego region that serve residents, businesses, and military operations. The landfills are Borrego, Miramar, Otay, Sycamore, Las Pulgas, and San Onofre. The current landfills for public use are either privately owned and operated, or are operated by the City of San Diego. The Sycamore, Otay, and Borrego landfills are owned and operated by Republic Services, and the Miramar Landfill is owned and operated by the City of San Diego on leased U.S. Department of the Navy land. Las Pulgas and San Onofre landfills are owned and operated by the U.S. Marine Corps (USMC). The USMC-operated landfills are not available for public disposal (CalRecycle 2014).

The total remaining capacity in all the existing landfills available for public disposal and located in the County or its cities is approximately 82,086,693 cubic yards or 59,798,903 tons. The nearest landfill to the proposed project, the Otay Landfill, has permitted capacity of 61,154,000 cubic yards, remaining capacity of approximately 24.5 million cubic yards as of March 2012, and is expected to be in operation until February 2028. Construction and demolition and inert processing (CDI), chip and grind, and composting operations are permitted at Otay Landfill. Diversion rates for CDI are estimated at 85%, and composting operations are achieving approximately a 95% diversion rate. Total permitted capacity at the Sycamore Landfill is approximately 71.2 million cubic yards and the landfill has a remaining capacity of 59%, or 42.2 million cubic yards and is expected to close in October 2031 (CalRecycle 2014).

At this time, there is one planned, permitted new landfill located within the County. The proposed Gregory Canyon Landfill is located adjacent to Route 76, about 3 miles east of I-15. If opened, this new landfill would have a capacity of approximately 30,000,000 tons (CalRecycle 2014). Another facility, in East Otay Mesa, is in process at the County; however, given the intensive duration of review to permit such facilities and the current status of that landfill, it was not assumed this facility will be operational for the proposed project.

Transfer Stations

Solid waste not dumped directly into a landfill is deposited temporarily in several privately operated transfer stations or rural bin sites located throughout the County. Nine transfer stations in the County assist with solid waste disposal services. The region's transfer stations and rural bin sites play a vital role in accommodating throughput to landfills, serving as collection and separation points of solid waste and recyclables. Transfer stations help reduce traffic congestion and provide the flexibility to haul waste to distant landfills or processing plants outside of the San Diego region. The network currently handles approximately 60 percent of the region's solid waste and services. The network has a permitted throughput of approximately 3 million tons per year, and currently uses about 2 million tons per year, or 67 percent of network capacity (CalRecycle 2014). The rural bin sites were closed as of May 1, 2009 by Republic since they were deemed not profitable. However, other haulers are available that can service the area (County of San Diego 2009d).

Construction Demolition and Inert Processing Facilities

Construction, Demolition, and Inert (CDI) debris waste not dumped directly in a landfill is deposited temporarily for processing at privately operated construction demolition processing facilities. Four CDI processing facilities in the County assist with solid waste diversion from the landfill. (CalRecycle 2014).

Organic Material Processing Facilities

Fifteen biomass processing facilities serve San Diego County that chip, grind, and compost organic materials. Approximately 508,000 tons of organic materials are processed for compost chips and mulch annually. An estimated 450 tons per day are prepared for transport to several biomass-powered electric-generating plants in Imperial and Riverside counties, which accrue about 117,000 tons per year. Two additional biomass plants are planned for the County of

San Diego: one in the City of Vista and the other in the Otay Mesa area. As of January 2009, one new composting facility had applied for operating permits, which would produce about 37,000 additional tons of compost annually (County of San Diego 2011b).

County Recycling Programs

In 1989, the IWMA required cities and counties to reduce their waste disposal levels by 25 percent by the year 1995 and by 50 percent by 2000. The Solid Waste Planning and Recycling Program implemented by the County Department of Public Works (DPW) serves residents and businesses in the unincorporated communities of San Diego County and works to achieve IWMA goals through continual improvement of waste diversion programs. Since 1991, the County has had a mandatory Recycling Ordinance (Ordinance 8866) for solid waste generators and waste haulers; in 2007, the County adopted a mandatory Construction and Demolition Ordinance (9840) for projects larger than 40,000 square feet (County of San Diego 2014). In 2005, the unincorporated San Diego County communities attained a 50 percent diversion rate.

The IWMA also requires the preparation of a County Integrated Waste Management Plan (IWMP). The County's IWMP, adopted on September 17, 1996, discusses the need for a reduction in solid waste and includes a Source Reduction and Recycling Element, Household Hazardous Waste Element, Non-Disposal Facility Element, Countywide Siting Element, and Countywide Summary Plan. Currently, the County implements extensive programs for source reduction, recycling, and best-use practices for a variety of materials. Current programs include support of rural recycling programs, curbside and drop-off recycling for motor oil and filters, and public/private partnerships for development of additional construction/demolition and organics processing capacities. Roughly 60 privately owned non-disposal facilities operate in the County, not including those within the City of San Diego. These include recycling and reuse companies, transfer stations, organic processors, and construction/demolition facilities. This network of non-disposal facilities is integral into the collection and processing of recyclable materials and help the County meet its diversion goals (CalRecycle 2014).

Non-Exclusive Solid Waste Management Agreement

The Non-Exclusive Solid Waste Management Agreement was created to allow the County to participate in the solid waste collection market to ensure orderly operation and to minimize the potential for adverse effects on the local environment. The agreement is based on the declaration of the California IWMA that it is in the interest of the public to require local agencies to make adequate provisions for solid waste handling. In addition, the County Board of Supervisors has determined that the agreement must be awarded to qualified companies for the collection and subsequent transfer, transportation, recycling, processing, and disposal of solid waste. The agreement allows the County to regulate waste collection in a market-driven process (County of San Diego 2011b).

2.8.2 Analysis of Project Effects and Determination of Significance

Guidelines for the Determination of Significance

A significant public services impact would occur if implementation of the Project would do the following:

- Be served by a landfill with insufficient permitted capacity to accommodate the Project's solid waste disposal needs; or
- Not comply with federal, state, and local statutes and regulations relating to solid waste.

Rationale for Selection of Guideline

The significance thresholds are based on the guidelines for significance in CEQA Guidelines Appendix G for Utilities and Service Systems.

Analysis

As to the first guideline for significance, the proposed Project would result in disposal of solid wastes generated from residential, commercial, resort, public, and other allowed uses. As provided by the California Integrated Waste Management Board (CIWMB) (1999), potential generation rates of these uses would be as follows:

<u>Land Use</u>	<u>Tons Per Year</u>
Residential	0.46 per dwelling unit
Retail Trade – Restaurant	3.1 per employee
Retail Trade – Food Store	2.9 per employee
Retail Trade – General Merchandise	0.3 per employee
Finance, Insurance, Real Estate, Legal	0.3 per employee
Services – Hotels/Lodging	2.1 per employee
Services – Medical/Health	1.5 per employee
Services – Education	0.8 per employee

Based on the proposed development of 1,938 residences, the residential portion of the Project would generate approximately 891.5 tons per year or 2.44 tons per day. Sufficient employment data is not currently available to accurately estimate waste generation from future commercial and education uses; however, an estimate could be made based on 300 (per FIA – to be updated by DPFG potentially) employees for the resort and varying numbers (per FIA – to be updated by DPFG potentially) of employees for each of the other land uses, as shown below. Based on these estimated solid waste generation rates, the proposed Project would generate 1,686 tons per year, or 4.62 tons per day, as follows:

<u>Land Use</u>	<u>Tons Per Year</u>	<u>Rate</u>	<u>Total</u>
Residential	0.46 per du	1,938 du	891.5
Retail Trade – Restaurant	3.1 per employee	11 employees	34.1
Retail Trade – Food Store	2.9 per employee	28 employees	81.2
Retail Trade – General Merchandise	0.3 per employee	22 employees	6.6
Finance, Insurance, Real Estate, Legal	0.3 per employee	22 employees	6.6
Services – Hotels/Lodging	2.1 per employee	300 employees	630
Services – Medical/Health	1.5 per employee	0 employees	0
Services – Education	0.8 per employee	45 employees	36
Total Tons per Year			1,686
Total Tons per Day			4.62

du=dwelling unit

As stated above, the Otay Landfill has a total capacity of 61,154,000 cubic yards and remaining operating capacity of approximately 24.5 million cubic yards as of March 2012. Based on the current average Otay Landfill disposal rate of 5,004 tons per day and the maximum permitted disposal rate of 5,830 tons per day, the estimated disposal of approximately 4 tons per day from the proposed Project would not cause the landfill to exceed its permitted capacity or require construction of a new landfill. In addition, the single family residences will be provided educational information as part of the New Homebuyer Package to inform residents about recycling, composting, and other practices that effectively reduce the amount of solid waste going to landfills. Therefore, impacts related to this issue are considered *less than significant*.

For the second guideline for significance, numerous federal, state, and local programs and regulations exist to manage solid waste disposal requirements and operations. These include the IWMA, which both regulates the management of solid waste within the state and presents strategies to assist in the siting of solid waste disposal facilities, and the Non-Exclusive Solid Waste Management Agreement, which regulates waste collection as a market-driven business (CalRecycle 2010).

In addition, the County General Plan contains goals and policies within the Land Use Element to assist in the provision of adequate waste management facilities and recycling and resource recovery activities to accommodate planned growth in the unincorporated areas of the County. Goal LU-12 requires infrastructure and services that meet community needs and are provided concurrent with growth and development. Policy LU-12.1 supports this goal by requiring concurrency of infrastructure and services with development. Goal LU-16 promotes appropriately sited solid waste management facilities to reduce environmental impacts and potential land use incompatibilities. Policies LU-16.1, LU-16.2, and LU-16.3 support this goal by encouraging additional recycling facilities and minimizing environmental impacts associated with solid waste facilities (County of San Diego 2011a).

In the Conservation and Open Space Element, Goal COS-17 encourages sustainable solid waste management. Policies COS-17.1, COS-17.2, COS-17.3, COS-17.4, COS-17.6, COS-17.7, and COS-17.8 support this goal by requiring landfill waste management, composting, methane recapture, and recycling (County of San Diego 2011a).

The proposed Project would be required to comply with federal, state, and local statutes and regulations related to solid waste. In addition, General Plan Update goals and policies related to solid waste disposal would further ensure compliance with all applicable laws and regulations. Therefore, proposed Project impacts associated with solid waste regulation are considered *less than significant*.

2.8.3 Cumulative Impact Analysis

Cumulative impacts to landfill capacity were addressed on a County-wide basis in the County General Plan Update Final EIR (County of San Diego 2011b) and also on a more local perspective in the Chula Vista General Plan EIR (City of Chula Vista 2005a). The County cited the IWMP estimate that solid waste disposal would increase from 3.7 million tons in 2002 to 6.1 million tons in 2017 and that additional landfill capacity would be needed by 2016 or increased diversion technologies would need to be developed. The County cites the need to increase the waste recycling rate to 75 percent to avoid the need to construct additional landfills (County of San Diego 2011b).

The Chula Vista General Plan EIR estimated that buildout of the General Plan would increase solid waste generation from 496 tons per day in 2004 to 751 tons per day by year 2020, which is an increase of 255 tons per day. This increase included the solid waste generated by Otay Ranch Village 13 and by the Eastern Urban Center Sectional Planning Area (EUC SPA), which was estimated in its EIR to generate 22.805 tons per day of solid waste (City of Chula Vista 2009).

Since the adoption of the Chula Vista General Plan EIR, additional projects have been proposed and/or approved, which would increase the demand for solid waste disposal. These projects include the Otay Ranch Village 8 West SPA Plan (approved), the Otay Ranch Village 9 SPA Plan (approved), the Otay Ranch Village 2 Comprehensive SPA Plan Amendment (pending), and the Otay Ranch University Villages (Villages Three North and Portion of Village Four, Village Eight East, and Village Ten) SPA Plan (pending). These projects would result in a total of approximately 103 additional tons of solid waste per day within the vicinity of the Project site, which would likely be disposed of at the Otay and/or Sycamore landfills. In contrast, Village 15 is no longer expected to be developed, nor are portions of Planning Areas 16, 17, and 19.

From a localized perspective, (generally speaking, areas nearest to the Otay Landfill), the Otay Landfill currently operates at 826 tons per day less than its maximum permitted daily intake. However, available capacity beyond year 2028 (when the Otay Landfill is expected to cease operations) is uncertain unless more effective diversion technologies are developed to achieve a 50 percent increase in the current level of recycling (i.e. from current rate of 50% to 75% diversion rate). In July 2012, Assembly Bill 341 went into effect. This bill sets a goal of 75% of solid waste generated statewide to be source reduced, recycled, or composted by the year 2020. AB 341 also requires that “a business that generates more than four cubic yards of commercial solid waste per week or is a multifamily residential dwelling of five units or more shall arrange for recycling services, consistent with state or local laws or requirements, including a local ordinance or agreement, applicable to the collection handling, or recycling of solid waste, to the extent that these services are offered and reasonably available from a local service provider.”

Although the proposed Project's direct impact of approximately 4 tons per day would not be a significant Project impact, the regional need for increased landfill capacity would be a significant cumulative impact that may require construction of new landfills in the County. The proposed Project would be unable to avoid contributing to this *significant cumulative solid waste disposal impact (Impact SW-1)*.

2.8.4 Significance of Impacts Prior to Mitigation

Implementation of the proposed Project is not anticipated to result in significant direct impacts related to solid waste disposal, as sufficient permitted landfill capacity exists to accommodate the Project's solid waste disposal needs. However, the cumulative impact to the need for increased regional landfill capacity would be significant.

2.8.5 Mitigation

No mitigation measures are proposed because implementation of the proposed Project would be served by a landfill with sufficient permitted capacity to accommodate the proposed Project's solid waste disposal needs, and one that complies with federal, state, and local statutes and regulations relating to solid waste. From a regional standpoint, no known mitigation measures would be able to avoid significant cumulative impacts related to the projected future solid waste disposal needs of the San Diego County region.

2.8.6 Conclusion

Implementation of the proposed Project is not anticipated to result in significant direct impacts related to solid waste disposal. However, the cumulative impact for increased regional landfill capacity would be significant. No known Project-level mitigation measures are available to avoid this significant cumulative impact. Therefore, the *cumulative impact remains significant and unavoidable*.

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