

4.13 UTILITIES AND SERVICE SYSTEMS

4.13.1 Introduction and Methodology

This section discusses the proposed project's potential impacts on public utilities, including wastewater, water, storm drains, and solid waste disposal.

4.13.2 Existing Conditions

Wastewater Treatment

The project has three options for sewer connection as detailed below.

In the City of Oceanside, wastewater is collected and treated by the Wastewater Division of the City's Water Utilities Department. The Department's Wastewater Division collects, treats, and disposes of sewage generated within in the City of Oceanside in accordance with applicable laws and standards. Staff is responsible for operating and maintaining over 450 miles of pipelines and 34 lift stations, as well as the San Luis Rey Wastewater Treatment Plant and the La Salina Wastewater Treatment Plant (City of Oceanside 2012a). The proposed project has two options to connect to the City of Oceanside sewer system through the Buena Vista Sewage Treatment Plant. The Buena Vista Sewage Treatment Plant, operated by the City of Oceanside, is located along Ring Road on the northern boundary of the Shoppes at Carlsbad, just south of Buena Vista Creek, approximately 1,000 feet east of the project site. The two options consist of:

- Extend an 8 inch line from the proposed on-site system across, and attached to bottom of, the project's bridge crossing of Buena Vista Creek and would travel east via Ring Road to connect to the City of Oceanside Buena Vista Sewage Treatment Plant (approximately 1,160 linear feet). This option would be located underground within Ring Road and would not require construction within Buena Vista Creek.
- Extend an 8 inch line north from the northeastern portion of the project site across (beneath) SR-78, connecting to an existing City of Oceanside sewer pipe system. For this option, the proposed project would connect, enlarge the existing City of Oceanside 12-inch sewer pipes to 15-inch, and continue to traverse east along the northern frontage of SR-78 to connect to an existing City of Oceanside sewer lines juncture. Similarly the proposed project would upsize the existing 12-inch line that crosses beneath SR-78 south to a 15-inch line, which ties into an existing sewer manhole that ultimately connects to the Buena Vista Sewage Treatment Plant with existing sewer lines. The total proposed sewer line would be approximately 1,460 linear feet. Trenchless construction methods (jack and bore) would be used for the SR-78 crossings.

The proposed project has an option to connect to the City of Carlsbad sewer system via the Buena Vista Lift Station. The proposed project would connect to the Vista–Carlsbad Interceptor for sewage treatment services for the project. The Vista–Carlsbad Interceptor, which is located just south of the project site and runs east to west along Buena Vista Creek, delivers wastewater from the City of Vista (located east of the project site) and the City of Carlsbad to the Encina Wastewater Authority treatment facility in Carlsbad. The Buena Vista Lift Station, located on the west side of the project boundary, pumps wastewater southwest along the Vista–Carlsbad Interceptor. The Vista–Carlsbad Interceptor and the Buena Vista Lift Station are co-owned by the Cities of Vista and Carlsbad (Dudek 2008). The Encina Water Pollution Control Facility has a design capacity to treat 40.5 million gallons per day (mgd) of wastewater and treats an average of 22 mgd (Encina Wastewater Authority 2014).

Domestic Water Supply

City of Oceanside

The Water Division provides potable water services to the City through operating and maintaining water treatment, distribution, and metering facilities. The Water Division purchases approximately 87% of the City’s water supply from the San Diego County Water Authority and treats it at the Robert A. Weese Filtration Plant (Weese Plant) which is currently in the process of being upgraded from a capacity of 25 mgd to 37.5 mgd. Mission Basin provides for the remaining water supply through extraction and treatment at the Mission Basin Groundwater Purification Facility (Mission Basin Plant) with a capacity of 6.4 mgd (City of Oceanside 2014a and 2014b).

City of Carlsbad

According to their 2012 Water Master Plan, the Carlsbad Municipal Water District (CMWD) has a service area that covers approximately 85% of the City of Carlsbad (approximately 32 square miles). All of CMWD’s water supply is sourced from the San Diego County Water Authority. CMWD operates existing water systems and facilities turnouts, transmission mains, distribution pipelines, pressure reducing stations, storage reservoirs, pump stations, and inter-ties with adjacent water agencies. The existing water distribution system consists of 450 miles of pipeline and 17 major pressure zones; CMWD operates and maintains one active pump station and four standby pump stations. Water storage for CMWD is provided by Maerkle Reservoir and 10 additional reservoirs within the distribution system. Maerkle Reservoir is the major treated water storage facility for CMWD, with a capacity of approximately 195 million gallons (CMWD 2012).

To provide domestic water service to the site, a connection from an existing system located off site in Carlsbad would be provided via a service area boundary adjustment and proposed annexation of the project site into the CMWD service area, which requires approval by the San Diego Local Agency Formation Commission via an inter-agency agreement. The water line would extend from the existing

water main in the Westfield Carlsbad Shopping Center via Ring Road and the project's bridge crossing of Buena Vista Creek and from North County Plaza via Jefferson Street/Marron Road intersection.

Storm Drain Facilities

There are two existing systems conveying the off-site flows north of the project site to Buena Vista Creek. The system located on the east ~~system~~ consists of a double 48-inch pipe, and the west system consists of a 42-inch pipe. These existing pipe systems are for temporary use and would be replaced by a reinforced concrete box and reinforced concrete pipes as part of the proposed project. The on-site project area is not tributary to either system (see Appendix R).

Currently, the project site can be divided into four drainage areas (Drainage Areas A, B, C, and D), which ultimately drain to Buena Vista Creek (see Figure 4.10-1 for drainage area locations). Existing stormwater flows on site are split between two drainage areas and generally sheet flow southwesterly and southeasterly across the site and discharge via two separate concrete over-the-side drains, eventually discharging into Buena Vista Creek. Minor off-site run-on flows from existing vegetated California Department of Transportation (Caltrans) slopes occur at the northwest corner of the property. The 0.91-acre off-site portion of the project to the southeast consists of an existing roadway (Ring Road) and shopping mall parking lot (Westfield Carlsbad). The area is mostly paved with parking lot planters in designated areas. Existing drainage for the off-site area is conveyed westerly toward Ring Road and then southerly along Ring Road to existing inlets prior to discharging to Buena Vista Creek (see Appendix S).

According to the 1992 City of Oceanside Master Plan of Drainage for Off-Site Flows, the 100-year flow rate for the double 48-inch pipe is approximately 232.6 cubic feet per second (cfs) and 76.5 cfs for the 42-inch pipe. Per the 2005 Master Plan of Drainage, the 100-year flow rate for the drainage areas tributary to the double 48-inch pipe and the 42-inch pipe is approximately 300.6 cfs. The 2005 Master Plan of Drainage originally did not separate the drainage areas to the existing double 48-inch pipe and single 42-inch pipe; however, the 2005 Master Plan of Drainage was updated to separate the drainage areas between the double 48-inch pipe and the 42-inch pipe. The updated off-site flow rates for the double 48-inch pipe is 240.8 cfs and 82.4 cfs for the 42-inch pipe, which is slightly higher than the rates estimated in the 1992 Master Plan of Drainage (Appendix R).

Recycled Water

Recycled water will be available in the future to the project at Ring Road as part of public water system improvements for the Shoppes at Carlsbad, to be constructed by others. The proposed project would provide separate on-site infrastructure to connect to the future public recycled water system, when available in Ring Road, for on-site irrigation. Until recycled water is available, the proposed project would use domestic (potable) water for irrigation. See Figure 3-9 for utilities markup.

Solid Waste and Recycling

Waste Management and Agri Service Inc. provide solid waste and recycling services to the City of Oceanside. Waste Management disposes of solid waste collected in the City of Oceanside at the El Sobrante Landfill located at 10910 Dawson Canyon Road, Corona, California 92883 (City of Oceanside 2012b). The City adopted and enacted the Zero Waste Strategic Resource Management Plan, which established methods to reach the goal of diverting 75% of solid waste by 2020, working in conjunction with the goals of City Council's adoption of Resolution No. 10-R0636-1, the State of California Assembly Bill 341 (AB 341) (City of Oceanside 2012b). The City is currently diverting waste and recycling at a rate of 67%, with an ultimate goal to reach 90% (City of Oceanside 2014c).

Regulatory Setting

Regional Water Quality Control Board

The San Diego Regional Water Quality Control Board (RWQCB) regulates water quality in portions of San Diego, Orange, and Riverside Counties pursuant to the federal Clean Water Act. The RWQCB sets standards, determines regulatory compliance, issues discharge permits, and enforces other actions related to ensuring the water quality of the region. The San Luis Rey Treatment Plant, La Salinas Treatment Plant, and Mission Basin Plant in the City of Oceanside operate under compliance with National Pollutant Discharge Elimination System Permit No. CA0107433, adopted by the RWQCB via Order No. R9-2011-0016, as amended by Orders No. R9-2012-0042 and R9-2012-0060.

City of Oceanside

General Plan

The relevant elements of the Oceanside General Plan to utilities and service systems are the Environmental Resource Management Element and the Hazardous Waste Management Element. All other specific plans and programs adopted by the City of Oceanside are consistent with the General Plan and its elements.

Environmental Resource Management Element

The Environmental Resource Management Element focuses on conserving and preserving natural resources and open space within the City of Oceanside. These resources include water, soil, coastal, minerals, habitats, air, agriculture, culture, and recreation space. This element is consistent with the General Plan and all other elements.

Hazardous Waste Management Element

The Hazardous Waste Management Element provides overall policy guidance for safe and effective managing of hazardous waste within the City of Oceanside. Items within this element’s scope include hazardous waste facilities, pollution prevention, and waste reduction and elimination. This element is consistent with the General Plan and all other elements.

Urban Water Management Plan

As required by California Water Code Section 10617, the City of Oceanside is required to complete an urban water management plan (UWMP) every 5 years as an “Urban Water Supplier” (City of Oceanside 2011a). The City of Oceanside adopted the 2010 UWMP in July 2011. The UWMP describes current water system services, facilities, supplies, and demands and provides planning guidelines for future projections for water use.

Water Conservation Master Plan

The Water Conservation Master Plan makes recommendations for specific water conservation measures to help the City achieve conservation goals set by the Water Conservation Act of 2009 (Senate Bill X7-7) and a reduction of 25 gallons per capita per day by 2020 (City of Oceanside 2011b). The Water Conservation Master Plan is consistent with the UWMP.

Zero Waste Strategic Resource Management Plan

In response to the adoption of Resolution No. 10-R0636-1 (City of Oceanside 2010a) by the City of Oceanside City Council on August 25, 2010, to divert 75% of waste by 2020 (also aligned with AB 341), the City developed the Zero Waste Strategic Resource Management Plan (Zero Waste Plan). The Zero Waste Plan identifies and recommends strategies for the City to achieve this goal. At the time of the drafting of the Zero Waste Plan, the City of Oceanside had already reached 67% waste diversion, as previously described under the solid waste and recycling subsection (City of Oceanside 2014c). The private companies contracted to provide solid waste and recycling services, Waste Management and Agri Service Inc., are also working in support of the City of Oceanside to achieve this goal.

City of Oceanside Municipal Code

The City of Oceanside Municipal Code provides various chapters that define requirements for public facilities impact fees as a condition of approval of building permits for development projects. Specifically, Chapter 32C, Section 32C.3, states that “prior to the issuance of a building permit for new construction, including residential and nonresidential development, on any property within the citywide area of benefit established pursuant to this chapter, the applicant for such

permit shall pay or cause to be paid any fees established and apportioned pursuant to this chapter for the purpose of defraying the actual or estimated cost of constructing the city’s public facilities” (City of Oceanside 2014d). Public facilities, as defined by the City of Oceanside Municipal Code, are all governmental facilities specified within the City’s General Plan, including water, sewer, and stormwater systems.

4.13.3 Thresholds of Significance

Based on the significance criteria established by Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.), a significant impact related to utilities and service systems would generally occur as a result of project implementation if the project would:

1. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.
2. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
3. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
4. Have sufficient water supplies available to serve the project from existing entitlements and resources, or result in the need for new or expanded entitlements.
5. Result in a determination by the wastewater treatment provider, which serves or may serve the project, that it has inadequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments.
6. Be served by a landfill with insufficient permitted capacity to accommodate the project’s solid waste disposal needs.
7. Not comply with federal, state, and local statutes and regulations related to solid waste.

4.13.4 Environmental Impacts

1. *Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?*
2. *Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

5. *Would the project result in a determination by the wastewater treatment provider, which serves or may serve the project, that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

During construction, raw sewage would be generated on site by construction workers. The amount of raw sewage that would be generated on site during construction activities is difficult to quantify. However, it is expected to be a small amount and would be accommodated by the use of portable facilities placed on the site and maintained by the construction contractor. No short-term impacts associated with sewage releases are anticipated.

Once operational, the project would have three options for sewer service. The project has two options for sewer services by connecting to an existing system within the City of Oceanside. Under one option, sewer lines would be extended from the proposed on-site system across the project's bridge crossing of Buena Vista Creek and would travel east via Ring Road to connect to the City of Oceanside Buena Vista Sewage Treatment Plant. Under a separate option, the project would extend sewer lines north from the northeastern portion of the project site across SR-78, connecting to an existing City of Oceanside sewer pipe system. The proposed project site is within the service area of the San Luis Rey Treatment Plant, which has a secondary treatment capacity of 13.5 mgd (with up to 1.5 mgd for the Rainbow Municipal Water District) and a tertiary treatment capacity of 0.7 mgd. The San Luis Rey Treatment Plant has an annual average flow of 9.77 mgd (City of Oceanside 2012c); therefore, the San Luis Rey Treatment Plan does not use full treatment capacity during normal operations. For either option, construction would avoid sensitive resources via trenchless methods where necessary (refer to Section 3.4, Biological Resources) and would incorporate all project design features and mitigation measures identified throughout this EIR as applicable.

The project has another option via connection with the City of Carlsbad. The project would connect to the Vista–Carlsbad Interceptor for sewage treatment services. The Vista–Carlsbad Interceptor is located along Buena Vista Creek just south of the project site. Sewage along the interceptor is pumped southwest via the Buena Vista Lift Station, located on the west side of the project boundaries. The Vista–Carlsbad Interceptor and the Buena Vista Lift Station are co-owned by the Cities of Vista and Carlsbad (Dudek 2008). The proposed project would connect into the interceptor via the existing 36-inch trunk sewer line, which feeds into the pump station from a southeasterly direction across Buena Vista Creek. In order to achieve this connection, an update to the Agreement between the City of Oceanside and the City of Vista for Transfer of Sewage Flows between Agencies dated October 24, 1984, would be required to include sewer service to the proposed project site. Per the pending agreement, once operational, the project would be billed for sewer

services by the City of Oceanside, and the City would then reimburse the City of Vista for costs associated with accepting sewage from the project site (Dolzone, pers. comm. 2012). The Encina Water Pollution Control Facility has a design capacity to treat 40.5 mgd of wastewater and treats an average of 22 mgd (Encina Wastewater Authority 2014). The proposed project would generate an average of approximately 38,192 gallons per day of wastewater (see Appendix V). The Vista–Carlsbad Interceptor and the Encina Water Pollution Control Facility have excess capacity to accept and treat the anticipated sewage from the project once it is operational.

Therefore, the project would not result in impacts associated with the construction of new wastewater treatment facilities or the expansion of existing facilities. With acceptance of the sewage from the site into the Vista–Carlsbad Interceptor and treatment at the Encina Water Pollution Control Facility or the San Luis Rey Treatment Plant, the project would be in compliance with wastewater treatment requirements, and operational impacts from wastewater generated on the site would be less than significant.

3. *Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

With the proposed development on the site, runoff would be conveyed to multiple on-site bioretention basins, Filterra curb inlets, and flow-through planter boxes prior to being discharged off site. As described in the project-specific Stormwater Mitigation Plan (Appendix R), runoff from buildings on the site would initially outfall to landscaped areas, then would flow overland to a private storm drain system, and then would be treated in the on-site bioretention basins prior to outfall in Buena Vista Creek (Appendix R). With implementation of the Stormwater Mitigation Plan, runoff from the proposed development on the site would be treated on site, and the project would not require the construction of new stormwater drainage facilities or the expansion of existing facilities.

The two existing storm drain systems (a double 48-inch pipe and a 42-inch pipe) which convey the off-site flows would be replaced with a reinforced concrete box and reinforced concrete pipe. The on-site storm drain systems would join the proposed reinforced concrete box and reinforced concrete pipe and the two systems would discharge on-site and off-site flows to Buena Vista Creek at the same discharge locations currently utilized. In addition, the City of Carlsbad has access and maintenance easements covering approximately 86% of the project site for the Buena Vista Creek Channel Maintenance Program. The City of Carlsbad’s Channel Maintenance Program is an ongoing maintenance program (consisting of hand removal of vegetation) to provide flood protection of the Maintenance District properties located along Buena Vista Creek between the Vista Way Bridge and Jefferson

Street Bridge. Maintenance occurs every 5 years for a few weeks at a time. This Channel Maintenance Program was covered under a program environmental impact report (EIR) (2005) and Supplemental EIR (2014) (State Clearinghouse no. 2002101015) for the Buena Vista Creek Channel Maintenance Project. Additional maintenance of storm drains occurs more frequently. The project is not anticipated to impact local stormwater facilities. (For information on the proposed project’s potential impacts to hydrology and water quality, refer to Section 4.10 of this EIR.)

2. ~~Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?~~
4. *Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or result in the need for new or expanded entitlements?*

Fire Protection Water Flows

Fire hydrant flow requirements vary by the type of land use and are established for water system planning purposes by the City of Oceanside in Section 2 of the City of Oceanside Water, Sewer, and Reclaimed Water Design and Construction Manual, as updated December 2010 (City of Oceanside 2010b). The proposed project would maintain a fire flow requirement of 4,000 gallons per minute. A minimum residual pressure of 26 pounds per square inch (psi) must be maintained under the maximum day demands plus fire flow (Appendix V).

Water Treatment Plants

~~Both the Weese Plant and the Mission Basin Plant will serve the proposed project site. The Mission Basin Plant was recently expanded to its current maximum capacity of 6.4 mgd. In response to projected growth within the City, the City is in the process of expanding the Weese Plant from its current 25 mgd capacity to a 37.5 mgd capacity (City of Oceanside 2011a). In addition to the previously mentioned expansion of the two potable water treatment facilities, the City of Oceanside has plans for an ocean water desalination facility, providing up to 10 mgd, to be built next to the Mission Basin Plant and to be operational by 2020 (City of Oceanside 2011a). The expansion of these treatment plants is not part of, or a result of, the proposed project and was subject to separate environmental analysis for determining environmental effects. Additionally, prior to approval of the proposed project, the City would provide a Water Supply Verification and Will Serve Letter confirming that adequate water supply and water treatment plant capacity exist to serve the proposed project. The proposed project would also connect to CMWD’s water distribution system.~~

CMWD projects a future water demand of 22.8 mgd, which is equivalent to a storage capacity of 228 million gallons. As indicated in the 2012 CMWD Water Master Plan, the existing storage capacity is sufficient for future water demands. ~~Although no reclaimed water source is identified for the project at this time, CMWD is expanding~~The project would connect to CMWD's recycled water lines use for irrigation (irrigation accounts for nearly 20% of water use), which would lower potable water demand. Additionally, CMWD is currently connected to desalinated water lines. CMWD has several water system improvement projects that would increase water supply, such as ~~connection to the future desalinated water lines and~~ new groundwater wells, which would further increase supply and lessen dependence on imported water. Therefore, impacts would be less than significant.

The proposed project is anticipated to use approximately 0.03 mgd of water for the proposed hotel and meeting facilities on the project site (Appendix G). The proposed improvements to the water system infrastructure would ensure that future development within the project site would have an adequate water distribution system. The construction of the on-site water system and connection to existing facilities are both part of the overall construction of the proposed project and no additional environmental effects would occur beyond what is analyzed within this EIR.

6. ***Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?***
7. ***Would the project comply with federal, state, and local statutes and regulations related to solid waste?***

No demolition activities are required during construction of the proposed project. Construction waste would be generated in the form of excess building materials used during the construction phase. No other significant volume of refuse would be generated by construction activities. As a result, construction impacts associated with the proposed project would be less than significant, and no mitigation measures are required.

Based on Cascadia Consulting Group's Targeted Statewide Waste Characterization Study: *Waste Disposal and Diversion Findings for Selected Industry Groups*, annual diverted material per employee was the measurement used to calculate total waste for each industry group (i.e., large hotels). Once operational, based on a solid waste generation rate of 5,049 pounds per employee per year (which accounts for guests) (Cascadia Consulting Group 2006), the proposed project would employ 358 staff members and generate approximately 904 tons of solid waste a year, or 2.5 tons a day. Based on approximately 800 pounds per cubic yard (CalRecycle 2012), the project would generate approximately 43.74 cubic yards

per week. The project would comply with all applicable solid waste handling, storage, and disposal laws and regulations, including Chapter 13 of the City of Oceanside Municipal Code, pertaining to solid waste storage and handling. Since the project would generate more than 4 cubic yards of commercial solid waste per week, per the new requirements under AB 341 effective July 1, 2012, the project would arrange for recycling services. Additionally, the project would comply with City of Oceanside and state recycling goals and would divert a minimum of 50% of the solid waste generated on the site for recycling. With 50% of the solid waste generated at the site recycled, the project would therefore send approximately 1.25 tons of solid waste to the local landfill per day.

The proposed project site would be provided solid waste disposal services by Waste Management, as with the rest of the City of Oceanside. The solid waste collected from the City of Oceanside is now disposed of at the El Sobrante Landfill located in Corona, California. The El Sobrante Landfill has a maximum permitted throughput of 16,054 tons per day, with estimated remaining capacity of 145,530,000 tons and projected closure date of January 1, 2045 (CalRecycle 2014). With the City of Oceanside and statewide goal of 75% diversion by 2020, the anticipated amount of project-generated solid waste going to the local landfill would be further reduced over the next several years. With a remaining capacity of 145,530,000 tons, the El Sobrante Landfill has sufficient permitted capacity to accommodate the project's solid waste disposal needs. Impacts to solid waste services from the proposed project would therefore be less than significant.

4.13.5 Mitigation Measures

The proposed project would not result in any significant impacts; therefore, no mitigation measures are required.

4.13.6 Level of Significance After Mitigation

Impacts to utilities and services systems would be less than significant.

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