4.17 UTILITIES AND SERVICE SYSTEMS

This section describes the existing utilities and service system conditions of the project site, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the Cypress Point project (proposed project) in the City of Oceanside (City). This section analyzes the proposed project's potential impacts on public utilities, including wastewater, water, storm drains, and solid waste disposal.

The analysis herein is based on the following technical reports prepared for the proposed project:

- Drainage Study for the Cypress Point Subdivision Project, prepared by Omega Engineering Consultants on March 19, 2021 (Appendix H to this EIR)
- Private Sewer System Analysis for the Cypress Point Project in the City of Oceanside, prepared by Dexter Wilson Engineering, Inc. on March 19, 2021 (Appendix K to this EIR)
- Water Systems Analysis for the Cypress Point Project in the City of Oceanside, prepared by Dexter Wilson Engineering, Inc. on March 19, 2021 (Appendix L to this EIR)
- Storm Water Quality Management Plan for the Cypress Point Subdivision, prepared by Omega Engineering Consultants on March 22, 2021 (Appendix M to this EIR)
- Sewer Hydraulic Impact Study for Cypress Point Subdivision, prepared by Infrastructure Engineering Corporation on May 11, 2021 (Appendix O to this EIR).

4.17.1 Existing Conditions

Domestic Water Supply

The City's Water Utilities Department Water Division provides potable water services to the City through operating and maintaining water treatment, distribution, and metering facilities. The Water Division purchases approximately 85% of the City's water supply from the San Diego County Water Authority (SDCWA) and treats it at the Robert A. Weese Filtration Plant (Weese Plant) which is 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 2021a).

The project site is located in an area of the City of Oceanside that is well developed and adjacent to residential to the south and east. The project site is situated in the central northern portion of the City in an area served by the Talone 320 Pressure Zone. The nearest existing 320 Pressure Zone public water lines in the vicinity of the project are a 12-inch water line in Pala Road southeast of the project site and an 8-inch water line in Los Arbolitos Boulevard to the east. The existing water system within the vicinity of the project is shown on Figure 2 in Appendix L of this EIR.

The water supply to this area comes mainly from three reservoirs and several pressure reducing valves (PRV) in the Talone 320 Pressure Zone. The three reservoirs are the 5 million gallon Wire Mountain Reservoir, the 3 million gallon Fire Mountain Reservoir, and the 3 million gallon John Paul Steiger Reservoir. These reservoirs provide gravity service to the Talone 320 Pressure Zone (Appendix L).

Wastewater Treatment

In the City of Oceanside, wastewater is collected and treated by the City's Water Utilities Department, Wastewater Division. The Wastewater Division provides wastewater collection, treatment, and disposal services of sewage for the City 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. The division owns and operates the San Luis Rey Water Reclamation Facility, which is currently being expanded (secondary treatment capacity expanding from 13.5 million gallons per day (mgd) in 2020 to 17.4 mgd in 2045), and the La Salina Wastewater Treatment Plant (secondary treatment is 5.5 mgd) (City of Oceanside 2021a). The proposed project lies in the services area of the San Luis Rey Water Reclamation Facility which also provides service for Rainbow Metropolitan Water District and a portion of the City of Vista (City of Oceanside 2021a). The San Luis Rey Water Reclamation Facility has a current treatment capacity of 3.0 mgd.

The proposed project is located in the San Luis Rey Valley Sewer Sub-Basin Service Area. The San Luis Rey Valley Sewer Sub-Basin extends from just east of College Boulevard, west toward the Mission Avenue Lift Station. The north edge of the San Luis Rey Valley Sewer Sub-Basin is the San Luis Rey River, and the basin extends south to Mesa Drive. The Sub-Basin has two main trunk sewers that drain to the Mission Avenue Lift Station. This lift station pumps the sewage to the San Luis Rey Wastewater Treatment Plant for treatment and disposal.

The existing public sewer system in the project area consists of 8-inch diameter sewer lines in Pala Road and Los Arbolitos Road. The sewer in Pala Road joins the Los Arbolitos sewer at the intersection of the streets, and then the flow continues south in Los Arbolitos Boulevard in a 12-inch sewer that flows south to Mission Avenue and then to the Mission Avenue Lift Station. Several force mains and outfalls also run through the project and adjacent to the project site. On the west side of the project site, there is a 24-inch San Luis Rey Land Outfall and the 24-inch Mission Avenue Lift Station Force Main, along with another 24-inch force main and a 10-inch force main within existing public easements. On the eastern boundary of the project site there is a 42-inch force main that contains Buena Vista Lift Station flows and a corridor reserved for future sewer mains (Appendix K).

Storm Drain Facilities

In the San Diego County, storm water discharges from any development to municipal storm drain systems are regulated by the San Diego Regional Water Quality Control Board (RWQCB). The City of Oceanside is responsible for local administration of storm water management requirements and has developed a Best Management Plan (BMP Design Manual) as a resource document, which is designed to facilitate the implementation of the requirements of the RWQCB Municipal Separate Storm Sewer System (MS4) Permit (City of Oceanside 2021c).

No permanent stormwater conveyances currently exist on the vacant project site. The existing on-site drainage is natural, as it occurs via overland flow and concentrated flow in earthen ditches. A graded ditch accepts runoff from the dead end of Aspen Street and conveys it west across the site to a concrete channel that borders the site. Runoff from the residential area to the west flows onto the site at the dead-end of Aspen Street. It then flows across the site in a graded channel and enters a concrete drainage channel that runs along the east side of the site, discharging to a vegetated area adjacent to the San Luis Rey River. Runoff from Pala road enters the site immediately south of the intersection of Los Arbolitos Boulevard and Pala Road. This runoff flows east across the undeveloped right-of-way and discharges to the same vegetated area as the on-site flows (Appendix H). The runoff then confluences with San Luis Rey River (Lower) approximately 1600 feet south of the site (Appendix M).

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 2012). The El Sobrante Landfill has a maximum permitted throughput of 16,054 tons per day with estimated remaining capacity of 143,977,170 tons and projected closure date of January 1, 2051 (CalRecycle 2019). 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 2012).

4.17.2 Regulatory Setting

Federal

National Pollutant Discharge Elimination System Permit Program

The National Pollution Discharge Elimination System (NPDES) permit program was established in the Clean Water Act (CWA) to regulate municipal and industrial discharges to surface waters of the

United States. Discharge from any point source is unlawful unless the discharge is in compliance with an NPDES permit. Federal NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and nonpoint-source stormwater runoff. NPDES permits generally identify effluent and receiving water limits on allowable concentrations and/or mass emissions of pollutants contained in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (Code of Federal Regulations, Title 40, Section 268, Subpart D), contains regulations for municipal solid waste landfills and requires states to implement their own permitting programs that include federal landfill criteria. The federal regulations address the location, operation, design, and closure of landfills, as well as groundwater monitoring requirements.

State

California Code of Regulations, Titles 14 and 27

Title 14 (Natural Resources, Division 7) and Title 27 (Environmental Protection, Division 2 [Solid Waste]) of the California Code of Regulations govern the handling and disposal of solid waste and operation of landfills, transfer stations, and recycling facilities.

Assembly Bills 939 and 341: Solid Waste Reduction

The California Integrated Waste Management (CIWM) Act of 1989 (AB 939) was enacted as a result of a national crisis in landfill capacity, as well as a broad acceptance of a desired approach to solid waste management of reducing, reusing, and recycling. AB 939 mandated local jurisdictions to meet waste diversion goals of 25% by 1995 and 50% by 2020 and established an integrated framework for program implementation, solid waste planning, and solid waste facility and landfill compliance. AB 939 requires cities and counties to prepare, adopt, and submit to the California Department of Resources Recycling and Recovery (CalRecycle) a source reduction and recycling element to demonstrate how the jurisdiction will meet the diversion goals. Other elements included encouraging resource conservation and considering the effects of waste management operations. The diversion goals and program requirements are implemented through a disposal-based reporting system by local jurisdictions under CIWM board (CIWMB) regulatory oversight. Since the adoption of AB 939, landfill capacity is no longer considered a statewide crisis. AB 939 has achieved substantial progress in waste diversion, program implementation, solid waste planning, and protection of public health, safety, and the environment from landfills operations and solid waste facilities.

In 2011, AB 341 was passed, making a legislative declaration that it is the policy goal of the state that not less than 75% of solid waste generated be source reduced, recycled, or composted by the year 2020.

AB 341 requires that local agencies adopt strategies that will enable 75% diversion of all solid waste by 2020. This bill requires all commercial businesses and public entities that generate 4 cubic yards or more of waste per week to have a recycling program in place. In addition, multifamily apartments with five or more units are also required to form a recycling program.

Senate Bill 1374: Construction and Demolition Waste Reduction

Senate Bill (SB) 1374 requires that annual reports submitted by local jurisdictions to CIWMB include a summary of the progress made in the diversion of construction and demolition waste materials. In addition, SB 1374 requires the CIWMB to adopt a model ordinance suitable for adoption by any local agency that required 50% to 75% diversion of construction and demolition waste materials from landfills. Local jurisdictions are not required to adopt their own construction and demolition ordinances, nor are they required to adopt CIWMB's model by default.

Assembly Bill 1327: California Solid Waste Reuse and Recycling Access Act of 1991

AB 1327, which was established in 1991, required CalRecycle to develop a model ordinance for the use of recyclable materials in development projects. Local agencies were then required to adopt the model ordinance, or an ordinance of their own, governing adequate areas for collection and loading of recyclable materials in development projects.

Assembly Bill 1826: Mandatory Commercial Organics Recycling

In October 2014, Governor Brown signed AB 1826 Chesbro (Chapter 727, Statutes of 2014) requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste generated per week (organic waste is defined as food waste, green waste, landscape, and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste.) This law also requires local jurisdictions across the state to implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily residential dwellings that consist of five or more units. This law phases in the mandatory recycling of commercial organics over time. In particular, the minimum threshold of organic waste generation by businesses decreases over time, which means an increasingly greater proportion of the commercial sector will be required to recycle organic waste.

Sustainable Groundwater Management Act (SGMA)

On September 16, 2014, Governor Jerry Brown signed into law a three-bill legislative package—AB 1739 (Dickinson), SB 1168 (Pavley), and SB 1319 (Pavley)—collectively known as SGMA. This act requires governments and water agencies of high- and medium-priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. Under SGMA, these basins should reach sustainability within 20 years of implementing their sustainability plans. For critically over-drafted basins, sustainability should be achieved by 2040. For the remaining high- and medium-

priority basins, 2042 is the deadline. Through SGMA, the CDWR provides ongoing support to local agencies through guidance, financial assistance, and technical assistance. SGMA empowers local agencies to form Groundwater Sustainability Agencies (GSAs) to manage basins sustainably, and requires those GSAs to adopt GSP for crucial groundwater basins in California.

Urban Water Management Plans (UWMP)

Pursuant to the California Urban Water Management Act (California Water Code Sections 10610-10656), urban water purveyors are required to prepare and update a UWMP every 5 years. UWMPs are prepared by California's urban water suppliers to support long-term resource planning and ensure adequate water supplies. Every urban water supplier that either delivers more than 3,000 AFY of water annually or serves more than 3,000 connections are required to assess the reliability of its water sources over a 20-year period under normal-year, dry-year, and multiple-dry-year scenarios in a UWMP. UWMPs must be updated and submitted to the CDWR every five years for review and approval. The project site is within the area addressed by the City of Oceanside UWMP.

Sanitary Sewer General Waste Discharge Requirements

On May 2, 2006, the State Water Resources Control Board (SWRCB) adopted a General Waste Discharge Requirement (Order No. 2006-0003) for all publicly owned sanitary sewer collection systems in California with more than 1.0 mile of sewer pipe. The order provides a consistent statewide approach to reducing sanitary sewer overflows by requiring public sewer system operators to take all feasible steps to control the volume of waste discharges into the system in order to prevent sanitary sewer waste from entering the storm sewer system, and to develop a Sewer System Management Plan. The General Waste Discharge Requirement also requires that storm sewer overflows be reported to the SWRCB using an online reporting system.

California Code of Regulations Title 24, Part 11

In 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code, Part 11 of Title 24, is commonly referred to as CALGreen and establishes minimum mandatory standards as well as voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency, water conservation, material conservation, and interior air quality. The CALGreen standards took effect in January 2011 and instituted mandatory minimum environmental performance standards for all new construction of residential and non-residential buildings. CALGreen standards are updated periodically. The latest version (CALGreen 2019) became effective on January 1, 2020. The Mandatory CALGreen standards pertaining to utilities and service systems include the following (24 CCR Part 11):

- Mandatory reduction in indoor water use through compliance with specified flow rates for plumbing fixtures and fittings.

- Mandatory reduction in outdoor water use through compliance with a local water-efficient landscaping ordinance or the California Department of Water Resources' Model Water Efficient Landscape Ordinance.
- Diversion of 65% of construction and demolition waste from landfills.
- Mandatory inspections of energy systems to ensure optimal working efficiency
- Inclusion of electric vehicle charging stations or designated spaces capable of supporting future charging stations

The CALGreen standards also include voluntary efficiency measures that are provided at two separate tiers and implemented at the discretion of local agencies and applicants. CALGreen's Tier 1 standards call for a 15% improvement in energy requirements; stricter water conservation, 65% diversion of construction and demolition waste, 10% recycled content in building materials, 20% permeable paving, 20% cement reduction, and cool/solar-reflective roofs. CALGreen's more rigorous Tier 2 standards call for a 30% improvement in energy requirements, stricter water conservation, 75% diversion of construction and demolition waste, 15% recycled content in building materials, 30% permeable paving, 25% cement reduction, and cool/solar-reflective roofs.

Local

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 2016a). The City of Oceanside adopted the 2015 UWMP in June 2016, and just recently adopted the 2020 Urban Water Management Plan in July 2021. The UWMP describes current water system services, facilities, supplies, and demands and provides planning guidelines for future projections for water use (City of Oceanside 2021a).

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 and a reduction of 34 gallons per capita per day by 2020 (City of Oceanside 2016b). 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 2010) 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 2012). 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 2021b). Public facilities, as defined by the City of Oceanside Municipal Code, are all governmental facilities within the City's General Plan, including water, sewer, and stormwater systems.

4.17.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to utilities and service systems are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to utilities and service systems would occur if the proposed project would:

1. Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.
2. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.
3. Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
4. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.
5. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

4.17.4 Impacts Analysis

Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Water

As described in Section 4.17.1 above, the City's Water Utilities Department Water Division provides potable water services to the City through operating and maintaining water treatment, distribution, and metering facilities. The Water Division purchases approximately 85% of the City's water supply from the San Diego County Water Authority (SDCWA) and treats it at the Weese Plant which has a current capacity of 25 million gallons per day (mgd). Mission Basin provides for the remaining water supply through extraction and treatment at the Mission Basin Plant with a capacity of 6.4 mgd (City of Oceanside 2021a).

Water system planning and design criteria for the project are based on Section 2 of the City's Design and Construction Manual, revised August 1, 2017, as well as City design requirements established for the project. The average day demand for the project is estimated to be

approximately 2,400 gallons per day per acre (gpd/ac) based on the land use category of "Single Family Residential (4-8 dwelling units per acre)". The maximum day and peak hourly demand factors are 2.0 and 3.0, respectively. During maximum demands, residual pressures must be greater than 45 psi and during peak hour demand residual pressure must be greater than 35 psi. Additionally, the fire flow requirement for the project is anticipated to be 1,500 gpm for the single-family residential land use. During fire flow demands, residual pressure must be greater than 20 psi in the water system. Based on this water demand criteria from the City's Design and Construction Manual, the estimated water demand for the project is outlined in Table 4.17-1 below.

Table 4.17-1
Project Estimated Average Water Demand

Land Use Category	Average Demand Factor[1]	Acreage	Average Water Demand, gpd
Single Family Res. (4-8 DU/ac)	2,400 gpd/ac	7.38	17,712
Average Day Demand	17,712 gpd (12.3 gpm)		
Maximum Day Demand	35,424 gpd (24.6 gpm)		
Peak Hour Demand	53,136 gpd (36.9 gpm)		

Source: Appendix L

As shown in Table 4.17-1, average day water demand for the proposed project would be approximately 17,712 gpd, maximum day water demand would be approximately 35,424 gpd, and peak hour water demand would be approximately 53,136 gpd.

The nearest public water lines are a 12-inch water line in Pala Road southeast of the project site and an 8-inch water line in Los Arbolitos Boulevard to the east. The water supply comes from the five-million-gallon Wire Mountain Reservoir, the three-million-gallon Fire Mountain Reservoir, and the three-million-gallon John Paul Steiger Reservoir. These reservoirs provide gravity service to the Talone 320 Pressure Zone.

Water service to the project site would be from the City's Talone 320 Pressure Zone. Pad elevations for the project site range between 51 feet and 57 feet, which would result in a maximum static water pressure range of 114 psi to 117 psi within the project boundary. The proposed water system for the project will make two connections to the existing public water system, including one connection to the existing 12-inch public water main in Pala Road and a second connection will be made to the existing 8-inch public water main in the Los Arbolitos Boulevard. Off-site the project would extent the 12-inch public water main in Pala Road to the project site. All on-site water mains would be 8-inches in diameter and would provide looping between the two existing system connections (please refer to Figure 3 of Appendix L).

[1] City of Oceanside Design and Construction Manual, revised August 1, 2017.

Per the City of Oceanside Design and Construction Manual, the minimum lateral size for new homes is 1-inch. The maximum capacity of a 1-inch service lateral per the 2019 California Plumbing Code (CPC) is 39 fixture units. Each home within the project would have an estimated fixture unit count of 27 FUs per the CPC, so a 1-inch lateral is sufficient for each proposed home (Appendix L). A fixture unit count of 27 translates to a demand of 19 gallons per minute (gpm) for each home proposed. Per the American Water Works Association C700-20, a ¾-inch meter has a maximum capacity of 30 gpm, therefore, each home is proposed to have a ¾-inch meter installed. Calculations supporting the service lateral and meter sizing is provided in Appendix L.

Through computer modeling, the Water Systems Analysis prepared for the proposed project determined that with the proposed water distribution system, the estimated water demand from the project, and the required minimum residual pressure (psi), would both be adequately met, and existing public water system infrastructure would adequately serve the project site. Additionally, the proposed public water system would be designed and constructed in accordance with the guidelines, standards, and approved materials of the City of Oceanside. No relocation or construction of new or expanded water facilities would be required to provide adequate service to the project, and therefore, impacts related to water demand and service would be **less than significant**.

Wastewater Treatment

As described under Section 4.17.1 above, wastewater is collected and treated by the City's Water Utilities Department, Wastewater Division. The division owns and operates the San Luis Rey Water Reclamation Facility, which is currently being expanded (secondary treatment capacity expanding from 13.5 million gallons per day (mgd) in 2020 to 17.4 mgd in 2045), and the La Salina Wastewater Treatment Plant (secondary treatment is 5.5 mgd) (City of Oceanside 2021a). The proposed project lies in the services area of the San Luis Rey Water Reclamation Facility which also provides service for Rainbow Metropolitan Water District and a portion of the City of Vista (City of Oceanside 2021a). The San Luis Rey Water Reclamation Facility has a current treatment capacity of 3.0 mgd.

Section 3 of the City's Design and Construction Manual (revised August 1, 2017) was used to calculate sewer generation rates and peaking factor for the project. For residential developments with a population of less than 500 (151 residents are estimated for the project), the City's Design and Construction Manual requires a peaking factor of 3.5 to convert average dry weather flow to peak wet weather flow. Based on the sewage generation factor of 170 gpd/du for low density residential, the estimated average sewer generation for the project would be 32,130 gpd (22 gpm), as shown in Table 4.17-2.

Table 4.17-2
Project Estimated Average Sewer Flow

Land Use Category	Land Use Description	Sewer Generation Factor	Units	Average Sewer Flow, gpd
Residential	Low Density	170 gpd/EDU	54	9,180
Total	**9,180 (6 gpm)**			

The proposed project would receive sewer service from the City. The existing public sewer system consists of 8-inch diameter sewer lines in Pala Road and Los Arbolitos Road. The sewer in Pala Road joins the Los Arbolitos sewer at the intersection of the streets, and then the flow continues south in Los Arbolitos Boulevard in a 12-inch sewer that flows south to Mission Avenue and then to the Mission Avenue Lift Station (see Figure 2 in Appendix K). The project proposes a new 8-inch sewer line on site and a new 8-inch sewer line in Pala Road that would connect to the existing line in Los Arbolitos Boulevard. All on-site sewer facilities for the project are proposed to be private, and each home within the project site would have its own sewer lateral (refer to Figure 3 of Appendix K). The minimum sewer lateral size per the City's Design and Construction Manual is 4-inches. The maximum capacity of a 4-inch service lateral at a 2% slope per the 2019 CPC is 216 drainage fixture units (DFUs). Each home within the project site has an estimated drainage fixture unit count of 24 DFUs per the CPC, so a 4-inch lateral is sufficient for each home within the project site.

As described in Section 4.17.1 above, on the eastern boundary of the project site there is a 42-inch force main that contains Buena Vista Lift Station flows, and an existing 20-foot sewer easement with a proposed corridor for an additional 10-foot public easement for future utility lines. The City has plans for future public sewer utilities to be installed along this 42-inch force main, potentially including two (2) 36-inch pipes and one (1) 24-inch pipe as shown on Figure 3 of Appendix K. Implementation of these City proposed future public sewer lines are separate of the proposed project and are not required to serve the project. Construction will likely be open trench method. Depending upon the timing of the City's sewer improvements and the proposed development, the proposed sewer mains may be constructed as part of the development under a reimbursement agreement with the City should it be agreed by both parties. Drivable curbs and/or driveways at south and north ends of the proposed project site would allow City maintenance vehicles direct access to public pipelines and facilities on-site and north of the project.

Modeling results, as shown in Appendix K, indicate that the proposed sewer system connection would adequately serve the proposed project, and existing City infrastructure would have sufficient capacity to accommodate project demand. Additionally, based on findings from the off-site sewer analysis (Appendix O), the proposed project does not require any off-site pipeline improvements to accommodate the additional sewer flows.

The proposed sewer system would be designed and constructed in accordance with the guidelines, standards, and approved materials of the City, and no relocation or construction of new or expanded wastewater facilities would be required as a result of project implementation. Therefore, impacts related to wastewater demand and service would be **less than significant**.

Storm Water Drainage

As described above, no permanent stormwater conveyances currently exist on the vacant project site. The existing on-site drainage is natural, as it occurs via overland flow and concentrated flow in earthen ditches. A graded ditch accepts runoff from the dead end of Aspen Street and conveys it west across the site to a concrete channel that borders the site. Runoff from the residential area to the west flows onto the project site at the dead-end of Aspen Street. It then flows across the project site in a graded channel and enters a concrete drainage channel that runs along the east side of the site, discharging to a vegetated area adjacent to the San Luis Rey River. Runoff from Pala road enters the site immediately south of the intersection of Los Arbolitos Boulevard and Pala Road. This runoff flows east across the undeveloped right-of-way and discharges to the same vegetated area as the on-site flows (Appendix H). The runoff then confluences with San Luis Rey River (Lower) approximately 1,600 feet south of the site (Appendix M).

In proposed conditions, on-site areas will surface drain to the proposed private streets, and then to one of four on-site biofiltration BMPs on-site. The BMPs will drain via a private storm drain system. Flow from off-site areas that drain to the project site would be intercepted and conveyed through the project site. Runoff from off-site tributary areas and on-site areas will confluence in the proposed storm drain under Pala Road and would be discharged via a 60-inch storm drain to a headwall located at the existing point of discharge southwest of the project site.

Due to the change from pervious to impervious ground cover on-site as a result of project development, the proposed project would result in an increase in peak runoff flowrate by approximately 15%. This increase is not anticipated to create adverse downstream conditions, as all the proposed storm drains are designed with sufficient capacity to convey the flow to the outfall location. The Drainage Study found that no negative effects to downstream waterways are anticipated as a result of the increased flow during the peak of the 100-year storm. The outfall of the proposed 60-inch storm drain would have an invert that is below the 100-year flood elevation (per the FEMA Flood Profile for San Luis Rey River) (Appendix H). For these reasons, the project is not anticipated to impact local stormwater facilities, and project impacts related to stormwater would be **less than significant**. For additional detailed information on the proposed project's potential impacts to hydrology and water quality, please refer to Chapter 4.9 of this EIR.).

Please refer to Chapter 4.5, Energy, of this EIR for detailed project analysis on electric power, natural gas, and telecommunications facilities.

Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

As described in response to Threshold 1) above, the average day water demand for the proposed project would be approximately 17,712 gpd, maximum day water demand would be approximately 35,424 gpd, and peak hour water demand would be approximately 53,136 gpd. The City's Water Utilities Department Water Division purchases approximately 85% of the City's water supply from the San Diego County Water Authority (SDCWA) and treats it at the Weese Plant which has a current capacity of 25 million gallons per day (mgd). Mission Basin provides for the remaining water supply through extraction and treatment at the Mission Basin Plant with a capacity of 6.4 mgd (City of Oceanside 2021a). Water service to the proposed project would be from the City's Talone 320 Pressure Zone. The water supply comes from the five-million-gallon Wire Mountain Reservoir, the three-million-gallon Fire Mountain Reservoir, and the three-million-gallon John Paul Steiger Reservoir. As determined in the Water Systems Analysis (Appendix L), the existing public water system would provide the necessary flow and pressure for the proposed housing development project and for fire flow available to the project site. Considering the capacity of the City's existing facilities, water demand generated by project implementation is expected to be adequately served.

Citywide water supply planning is completed via the Urban Water Management Plan (City of Oceanside 2016a, 2021a). The proposed project would be in compliance with the General Plan and Zoning code, and therefore water demand of the project has been considered in the City and Regional water supply documents that are based on the buildout of the City. The City has also developed the Oceanside Water Conservation Master Plan (City of Oceanside 2016b), that further ensures water availability to the City during drought years. Additionally, the project would include water conserving landscaping along with efficient irrigation design consistent with the City's water planning efforts. Additionally, the SDCWA has developed a Water Shortage Contingency Plan (SDCWA 2021) as well that identifies ways in which the region can reduce water consumption during catastrophic events and in drought years. As part of the Water Shortage Contingency Plan, the Drought Ordinance established six drought stages of actions that can be taken to reduce water demand up to 50% or more. Because the occupants of the project would be a customer within the City's service area, the project would adhere to water conservation measures imposed by the City.

It has been determined that sufficient water supply would be available to serve the proposed project during normal, dry and multiple dry years, and therefore, impacts related to water supply are considered to be **less than significant**.

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

As described in response to Threshold 1), wastewater is collected and treated by the City's Water Utilities Department, Wastewater Division who own and operate the San Luis Rey Water Reclamation Facility, which is currently being expanded (secondary treatment capacity expanding from 13.5 million gallons per day (mgd) in 2020 to 17.4 mgd in 2045), and the La Salina Wastewater Treatment Plant (secondary treatment is 5.5 mgd) (City of Oceanside 2021a). The proposed project lies in the services area of the San Luis Rey Water Reclamation Facility which has a current treatment capacity of 3.0 mgd (City of Oceanside 2021a). As shown in Table 4.17-2 above, the estimated average sewer generation for the project would be 32,130 gpd (22 gpm).

Modeling results, as shown in Appendix K, indicate that the proposed sewer system connection would adequately serve the proposed project. Based on existing facility capacity, estimated sewer generation from the proposed project is expected to be adequately accommodated by the San Luis Rey Water Reclamation Facility in addition to their existing commitments. Construction of new facilities would not be required, and impacts related to wastewater service would be **less than significant**.

Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Waste from the proposed project would go to the El Sobrante Landfill. The El Sobrante Landfill has a maximum permitted throughput of 16,054 tons per day with estimated remaining capacity of 143,977,170 tons and projected closure date of January 1, 2051 (CalRecycle 2019). The Greenhouse Gas Screening Assessment prepared by Ldn Consulting, Inc. (Appendix G) estimated that the proposed project would generate approximately 63.14 tons of solid waste per year from the estimated 151 residences, which equates to approximately 0.17 tons of solid waste per day (Appendix G). This represents 0.00106% of the daily landfill capacity at El Sobrante Landfill.

Considering no demolition activities are required prior to construction, and considering the project would only generate approximately 151 residents on-site, it is determined that the El Sobrante Landfill has sufficient permitted capacity to serve the proposed project. Additionally, the proposed project would participate in the City's recycling programs, which would further reduce solid waste sent to El Sobrante Landfill. For these reasons, it is determined that the project would result in **less than significant** impacts related to solid waste.

Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

As previously stated, 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. For project operation, it is estimated that the proposed project would generate approximately 63.14 tons of solid waste per year from the estimated 151 residences, which equates to approximately 0.17 tons of solid waste per day (Appendix G). This represents 0.00106% of the daily landfill capacity at El Sobrante Landfill, which is considered nominal.

The proposed project would comply with all applicable federal, state, and local policies outlined in Section 4.17.2 above, and project impacts related to solid waste would be **less than significant**.

4.17.5 Mitigation Measures

Impacts related to utilities and service systems as a result of project implementation are determined to be less than significant, and therefore no mitigation measures are required.

4.17.6 Level of Significance After Mitigation

No substantial impacts related to utilities and service systems were identified; therefore, no mitigation measures are required. Impacts related to utilities and service systems would be **less than significant**.