4.15 UTILITIES AND SERVICE SYSTEMS

This section describes the existing utilities setting of the project site, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed Villa Storia Planned Development (PD) Plan (proposed project). The analysis within this section is based in part upon the following technical studies: Off-site Sewer System Analysis for the Villa Storia Project in the City of Oceanside (sewer report) and Water System Analysis for the Villa Storia Project in the City of Oceanside (water report), both prepared by Dexter Wilson Engineering, Inc. (Dexter Wilson) in May and November 2014, respectively (Dexter Wilson 2014a and 2014b). Both the sewer report and water report are incorporated by reference herein and are found in Appendix K of this EIR.

4.15.1 Relevant Plans, Policies, and Ordinances

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 (CWA). 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 Groundwater Purification Facility in the City of Oceanside operate under compliance with National Pollution Discharge Elimination System (NPDES) 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 State of California requires that each city draft and adopt a comprehensive general plan that provides long term policy and development guidelines and goals within each city's jurisdiction. Each general plan has several required elements. The relevant elements 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.

<u>Environmental Resource Management Element</u>

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 five years as an "Urban Water Supplier" (City of Oceanside 2011a). The City 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 (WCMP) 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 WCMP is consistent with the UWMP.

Zero Waste Strategic Resource Management Plan

In response to the adoption of Resolution No. 10-R0636-1 by City Council on August 25, 2010 to divert 75% of waste by 2020 (also aligned with Assembly Bill 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 had already reached 67% waste diversion (City of Oceanside 2014c). The private companies contracted to provide solid waste and recycling services, Waste Management, Agri Service, Inc., and Moodys, are also working in support of the City to achieve this goal.

City of Oceanside Municipal Code

The City's 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 2014a). Public facilities, as defined by the City's Municipal Code, are all governmental facilities specified within the City's General Plan, including water, sewer, and stormwater systems.

Chapter 13 of the City's Municipal Code contains the Solid Waste and Recycling Code. The Solid Waste and Recycling Code provides definitions, administration requirements, enforcement, and regulations for storage, disposal, and collection of solid waste as well as provision of recycling facilities and separation of recyclables within the City.

4.15.2 Existing Conditions

Water Utilities Department

The Water Utilities Department is responsible for providing potable water, wastewater, and storm water services to the City of Oceanside. This department is also responsible for overseeing waste and recycling services, as well as implementing the Zero Waste Plan. Each division is described in further detail below.

Water Division

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 (SDCWA) and treats it at the Robert A. Weese Filtration Plant (Weese Plant) with a capacity of 25 million gallons per day (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 2014d and 2014e).

The project site is located in an area of the City of Oceanside that is well developed and adjacent to residential to the north and east. Within these areas the water systems have been in place for many years with much of the piping has been upgraded to asbestos cement or PVC piping. A 24-inch diameter concrete, transmission line for the 320 Pressure Zone in Oceanside runs through the project site under Academy Road. An eight inch diameter PVC line is located in Frazee Road east of Academy Road. Off-site, there are 320 Zone water lines in Mission Avenue to the south. These include an eight inch diameter ductile iron line, an eight inch diameter cast iron line, and a ten inch diameter asbestos concrete line. Table 4.15-1 below shows the average daily water demand rates by residential land use type and density, which are derived from the most recent City of Oceanside Water, Sewer, and Reclaimed Water Design and Construction Manual (updated in December 2010).

Table 4.15-1
Average Daily Water Demand Rates

Land Use	Gallons Per Day Per Acre Demanded
Residential (1-2 du/ac)	1,200
Residential (2-4 du/ac)	2,100
Residential (4-8 du/ac)	2,400
Residential (8-12 du/ac)	2,500
Residential (12-15 du/ac)	2,800
Residential (15-20 du/ac)	3,200
Residential (20-30 du/ac)	4,100
Agricultural	1,750
Institutional	1,675

du/ac = dwelling units per acre
Source: Dexter Wilson 2014b

The water pressure zone serving the area around the project site is the Talone Reservoir Zone and Heritage Reservoir Sub-Zone operating at a maximum hydraulic grade line of 320 feet. The primary piping feeding the system extends along Mission Avenue to the south and Frazee Road to the north.

Wastewater Division

The Wastewater Division provides wastewater collection, treatment, and disposal services of sewage for the City. The division owns and operates the San Luis Rey Treatment Plant (secondary treatment capacity is 13.5 mgd and tertiary treatment capacity is 0.78 mgd) and the La Salina Wastewater Treatment Plant (secondary treatment capacity is 5.5 mgd) (City of Oceanside 2011a). The proposed project lies in the service area of the San Luis Rey Treatment Plant which also provides service for Rainbow Metropolitan Water District and a portion of the City of Vista (City of Oceanside 2014b). Currently, on a normal day, the San Luis Rey Treatment Plant treats approximately 9.3 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 towards 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.

Two existing gravity sewer lines run through the project site: a 12-inch line runs along the eastern boundary of the project site near Spring Canyon Way and a ten inch line runs along Academy Road through the center of the project site. These two gravity sewer lines join at a manhole in Academy Road at the northern boundary of the proposed project site.

From the manhole in Academy Road where the two gravity sewer lines join, a single 12-inch gravity sewer line runs northwest from the project site boundary through the San Luis Rey Homes mobile home community and crosses Old Grove Road before discharging into an 18-inch gravity trunk sewer line.

The City's Wastewater Master Plan identifies the average per capita sewage flow to be 73 gallons per day (gpd). In addition, in previous sewer studies done in the City of Oceanside, the City identified multi-family dwelling units to have an average sewage generation rate of 183 gpd per dwelling unit and for single family dwelling units to have an average sewage generation of 250 gpd unit. The sewer generation rates for institutional and commercial land uses are referenced from the City of Oceanside Water, Sewer, and Reclaimed Water Design & Construction Manual, as updated December 2010. Table 4.15-2 below lists sewer generation rates for proposed and existing land use types within the project vicinity. These values are used to size the on-site sewers and the off-site sewers adjacent to the project.

Table 4.15-2
Average Sewer Generation Rates

Land Use	Generation Rate
Single Family Residential	250 gpd/du
Multi-family Residential	183 gpd/du
Institutional	800 gpd/ac
Commercial	1,500 gpd/ac

gpd/du = gallons per day per dwelling unit
gpd/ac = gallons per day per acre
Source: Dexter Wilson 2014b

Utilizing the sewer generation rates listed in Table 4.15-2 above, the existing sewer flows for the existing Spring Canyon Way, Academy Road, and San Luis Rey Homes mobile home community easement sewer lines are shown in Table 4.15-3 below.

Table 4.15-3
Existing Sewer Flows for Sub-Basins

Sewer Sub-Basin	Single Family Dwelling Units	Multi-Family Dwelling Units	Other	Sewer Flow (gpd)
Spring Canyon Way	141	567	7.3 acres of commercial	149,688
Academy Road	0	272	9.4 acres of institutional	57,160
Both (easement)	18	318	None	62,694
			Total Average Day Demand	**269,542**

gpd = gallons per day
Source: Dexter Wilson 2014a

Storm Water

The City implements the Clean Water Program as a method to improve water quality of local water sources. Much of the CWP is realized through public education and outreach about pollution prevention practices. The City has a hotline to report urban runoff or storm drain dumping in order to help enforce better practices among residents and business owners.

As discussed in Section 4.8, Hydrology and Water Quality, the northern portion of the site drains generally towards the east/northeast into a 54 inch trunk storm drain that connects to the existing trunk 84 inch storm drain on the northern edge of the project site. The majority of existing Academy Road is elevated above the surrounding open land, therefore the northwestern two-thirds of the project site drains to a sump just west of Academy Road, where a culvert conveys flow under the roadway. From there, the northeastern one-third of project site sheet flows slowly north to the 54 inch culvert at Frazee Road. A southern portion of the site drains east near the project site edge along SR-76 into the 84 inch storm drain that runs along the eastern boundary of the project site.

Sold Waste and Recycling

The City implements and oversees solid waste and recycling services in order to ensure compliance with state regulation and the City's Municipal Code. 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, CA 92883 (City of Oceanside 2012). Recyclables are collected by Waste Management and delivered to the Waste Management Materials Recovery Facility located at 2050 North Glassell Street, Orange, CA 92865. The City adopted and enacted the *Zero Waste Strategic Resource Management Plan* which establishes methods to reach the goal of diverting 75% of solid waste by 2020, which works 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). The City is currently diverting waste and recycling at a rate of 67% with an ultimate goal to reach 90% (City of Oceanside 2014c).

Project Description

The proposed project is located in the north-central portion of the City of Oceanside within the Mission San Luis Rey Historic Area. The proposed project would establish medium to high density residential development with a maximum of 420 units (320 medium density and 100 high density) within the 35.59-acre project site.

4.15.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to land use and planning 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 project would:

A. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

B. 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.

C. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction or which could cause significant environmental effects.

D. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.

E. 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.

F. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.

G. Comply with federal, state, and local statutes and regulations related to solid waste.

4.15.4 Impacts Analysis

A. Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

The San Luis Rey Treatment Plant operates under discharge permit NPDES No. CA0107433 issued by the RWQCB through Order No. R9-2011-0016, as amended by Orders No. R9-2012-0042 and R9-2012-0060. The proposed project would generate wastewater that would be treated at the San Luis Rey Treatment Plant and is required to be in compliance with the applicable NPDES permit issued by the RWQCB. As discussed in responses (b) and (e) below, development of the proposed project would not exceed the capacities of the San Luis Rey Treatment Plant and associated conveyance facilities. The San Luis Rey Treatment Plant treats approximately 9.3 mgd on a normal day and has a secondary treatment capacity of 13.5 mgd and a tertiary treatment capacity of 0.78 mgd. Therefore, impacts would be less than significant.

B. 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?

Water

On-Site Infrastructure

Based upon the average water demand rates shown in Table 4.15-4 above, which are derived from the most recent City of Oceanside Water, Sewer, and Reclaimed Water Design and Construction Manual (updated in December 2010), the proposed project would have an Average Day Demand of 97,750 gallons per day (gpd) of potable water as shown in Table 4.15-4 below.

Table 4.15-4
Proposed Project Potable Water Demands

Planning Area	Dwelling Units	Proposed Density Range (du/ac)	Average Density (du/ac)	Average Daily Water Rate (gpd/ac)	Gallons Per Day Demanded (gpd)
Planning Area 1	62	6.0-9.9	5.4	2,400	27,600
Planning Area 2	100	21.0-28.9	24.7	4,100	16,600
Planning Area 3	86	10.0-15.0	11.1	2,500	19,350
Planning Area 4	172	15.1-20.9	16.1	3,200	94,200
				Total Average Day Demand	**97,750**
				Maximum Day Demand	**195,500**
				Peak Hour Demand	**293,250**

gpd/ac = gallons per day per acre
du/ac = dwelling units per acre
Source: Dexter Wilson 2014b

As shown in Table 4.15-4 above, the proposed project would have an Average Day Demand of 97,750 gpd, or 67.0 gallons per minute (gpm), a Maximum Day Demand of 195,500 gpd, or 135.8 gpm, and a Peak Hour Demand of 293,250 gpd, or 203.6 gpm. The water report utilized these calculated water demands for the proposed project as well as other existing development in the vicinity in order to determine water infrastructure adequacy and propose the necessary improvements.

As described above, there is an existing 24-inch water main running along Academy Road and an eight inch water line that connects to the water main along Frazee Road at the Academy Road/Frazee Road intersection. Additional two eight inch lines and one ten inch water line located off-site are also connected to the 24-inch water main along Academy Road. The proposed project would connect to these existing water lines to serve the future development as described below.

As shown in Figure 4.15-1, the public water system infrastructure would ultimately consist of an eight inch diameter looping system within the project site. As part of the proposed on-site improvements for the project, a section of the 24-inch water main would be replaced due to a proposed grade change in Academy Road. The section being replaced stretches from south of the Academy Road and Frazee Road intersection to south of the future Academy Road intersection near the center of the project site (see Chapter 3, Project Description and Section 4.14, Transportation and Traffic, for details for the proposed internal roadway circulation). The estimated length of existing 24-inch pipeline to be replaced is 500 feet with pipeline of the same capacity.

As described in Section 3.0, Project Description, the proposed project would consist of four Planning Areas. Planning Area 1, along with its improvements, is expected be constructed first and has a proposed Tentative Map as part of the project. Due to the proposed Tentative Map, exact water infrastructure improvements for Planning Area 1 are shown in Figure 4.15-2 while the improvements for Planning Areas 2, 3, and 4 would be extensions of the Planning Area 1 improvements. It should be noted that Planning Areas 2, 3, and 4 would not necessarily be built in sequential order. The exact piping alignments for Planning Areas 2, 3, and 4 depend upon the precise plan to be developed for each area. In order to prepare each for future precise planning, a minimum eight inch diameter looping system is proposed within Planning Areas 2, 3, and 4.

Because Planning Area 1 would be constructed first, on-site eight inch diameter looping system would serve as a stand-alone system until Planning Areas 2, 3, and 4 are constructed. The proposed Planning Area 1 improvements include the partial 24-inch water main replacement in Academy Road and two connections to the 320 Zone. The two connections to the 320 Zone would be in the replacement section of the 24-inch water main and in Frazee Road in the northeast part of the planning area. Three stubs would also be installed as part of the proposed Planning Area 1 improvements that include one in the southern end of Planning Area 1 (to connect to Planning Area 2) and two in the replacement section of the 24 inch transmission main to the west (to connect to Planning Areas 3 and 4). These specific Planning Area 1 improvements are shown in Figure 4.15-2.

Planning Area 3 can be built by connecting to the Planning Area 1 water improvements without going outside the planning area to connect to existing water facilities Planning Areas 2 and 4 are only adjacent to a single Planning Area 1 connection point and would need to construct an additional connection to the existing 24-inch in Academy Road if either planning area were to develop independently of each other. If Planning Area 2 and 4 are developed concurrently then a connection to the existing 24-inch would not be necessary as looping would be provided.

The proposed improvements to the water system infrastructure, as included as part of the overall project outlined within the proposed PD Plan, would ensure that future development within the project site would have an adequate water distribution system. The construction of the on-site

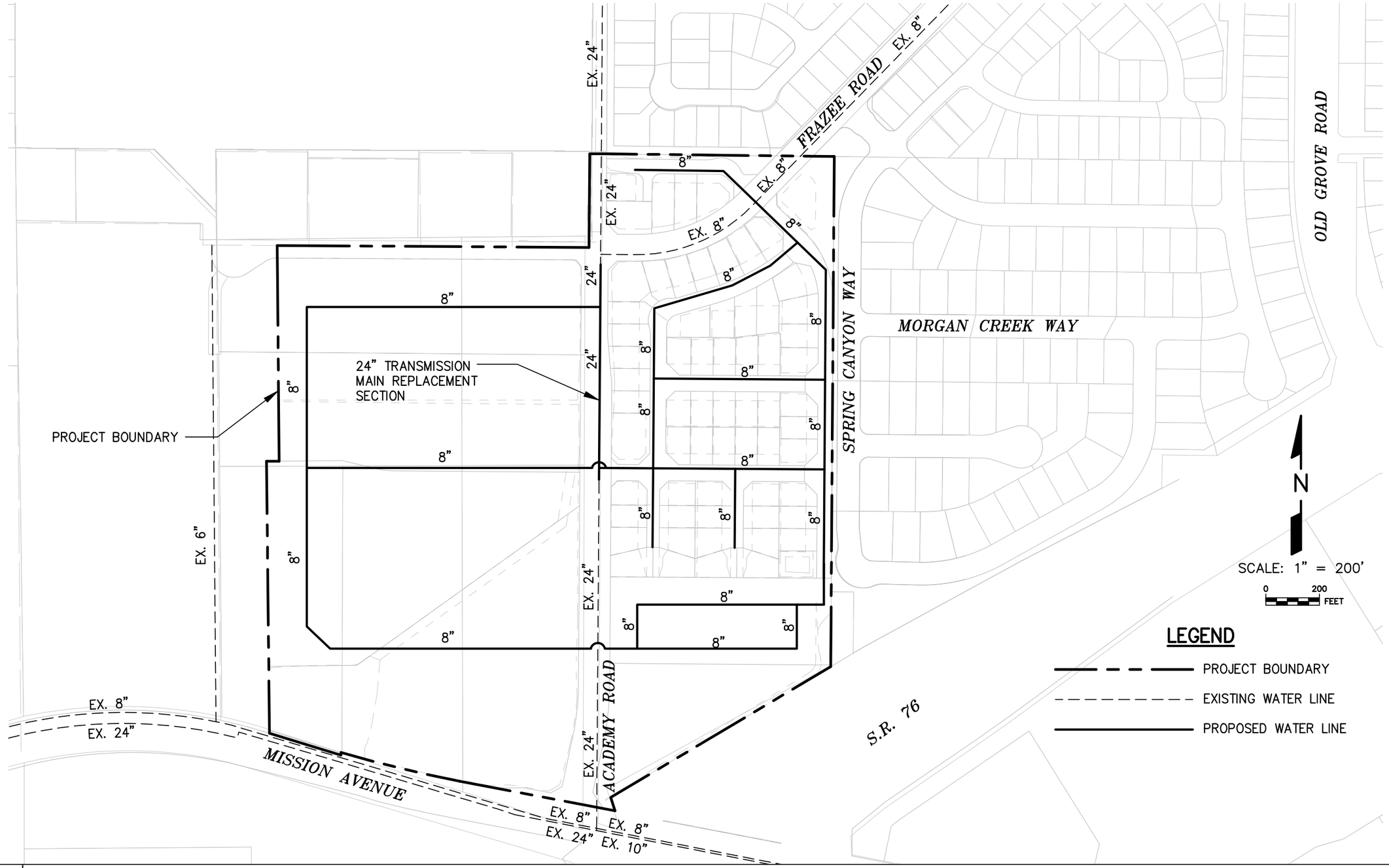
water system and connection to existing facilities are part of the overall construction of the proposed project and no additional environmental effects would occur beyond what is analyzed within this EIR. As concluded by the water report prepared by Dexter Wilson and found in Appendix K, development of the proposed water infrastructure improvements would adequately serve the increase in demand and would result in less than significant impacts.

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 in Section 2 of the City of Oceanside Water, Sewer, and Reclaimed Water Design and Construction Manual, as updated December 2010. The multi-family residential land use the corresponding fire flow requirement is 3,000 gpm and the single family residential land use the fire flow requirement is 1,500 gpm. A minimum residual pressure of 20 pounds per square inch (psi) must be maintained under maximum day demands plus fire flow. As calculated by the water report prepared by Dexter Wilson (Appendix K), the proposed water system improvements would adequately deliver a fire flow of 3,000 gpm to the two furthest fire hydrants at either end of the project site with a residual pressure at the hydrant of greater than 20 psi. Therefore, impacts to fire protection water flows would be less than significant.

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 has planned to expand 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 has plans for an ocean water desalination facility, providing up to 10 mgd, to be built next to the Mission Basin Plant and operational by 2020 (City of Oceanside 2011a). The expansion of these treatment plants are not part of, or a result of, the proposed project and would require separate environmental analysis for determining environmental effects. Therefore, impacts would be less than significant.



SOURCE: DEXTER WILSON ENGINEERING 2014

FIGURE 4.15-1
Proposed Water System Improvements

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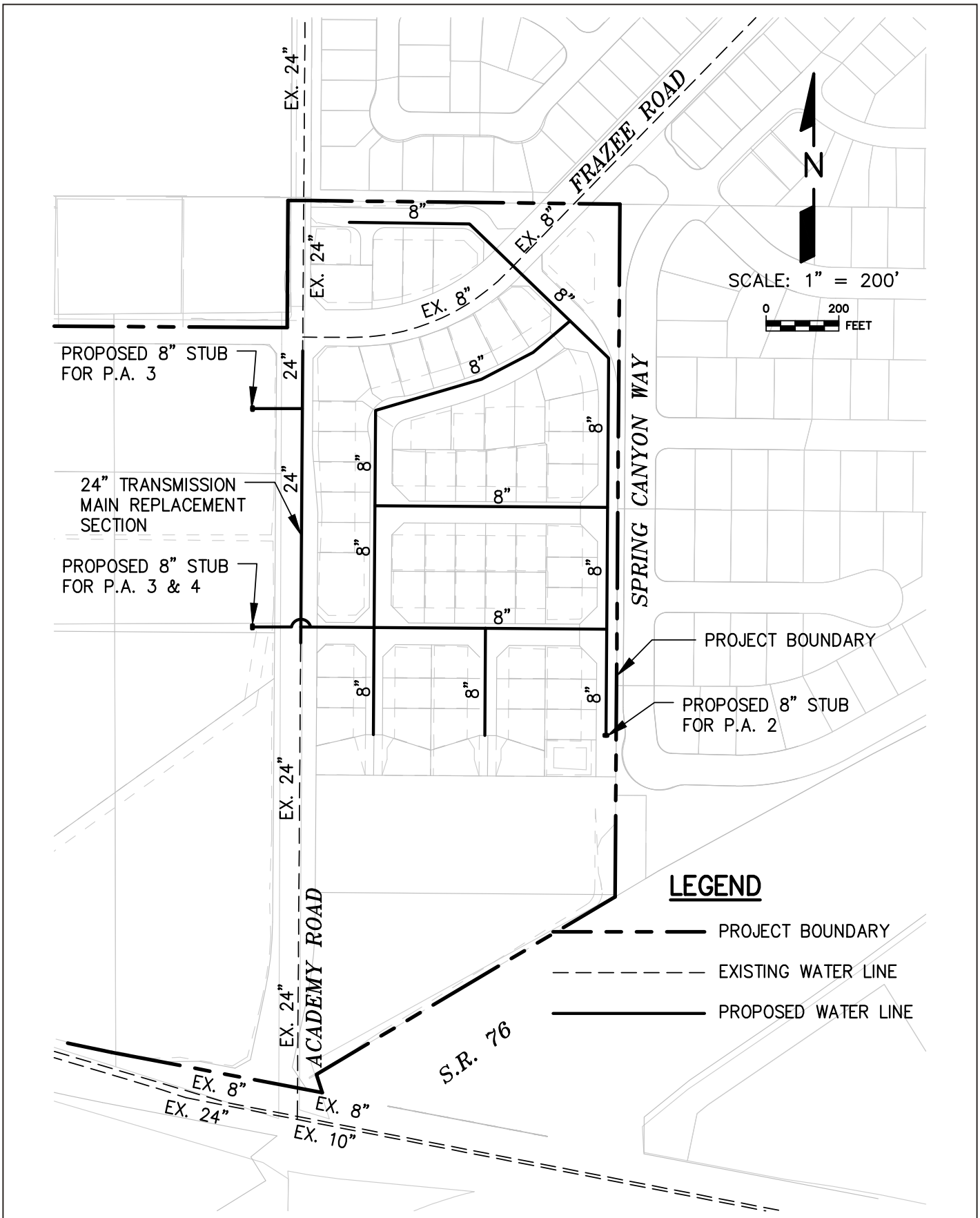

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SOURCE: DEXTER WILSON ENGINEERING 2014

FIGURE 4.15-2

Planning Area 1 Specific Water System Improvements

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Wastewater

Based upon the average sewer generation rates shown in Table 4.15-2 above, the proposed project would have a total sewer generation flow rate of 98,300 gpd as shown in Table 4.15-5 below.

Table 4.15-5
Proposed Project Sewer Generation Flows

Planning Area	Unit Count and Type	Sewer Flow Per Unit (gpd)	Total Flow Per Planning Area (gpd)
Planning Area 1	62 Single Family	250	15,500
Planning Area 2	100 Multi-family	183	18,300
Planning Area 3	86 Single Family	250	21,500
Planning Area 4	172 Single Family	250	43,000
		Total Sewer Flow Generation	**98,300**

gpd = gallons per day
Source: Dexter Wilson 2014a

The project would connect to a 12-inch line runs along the eastern boundary of the project site near Spring Canyon Way and a ten inch line runs along Academy Road through the center of the project site, as shown in Figure 4.15-3. The project's contribution to average dry weather flow is calculated to be 0.11 million gallons per day (mgd). As calculated in the sewer report prepared by Dexter Wilson (Appendix K), the existing sewer lines would be sufficient to serve the proposed project in addition to existing sewer flows from Spring Canyon Way, Academy Road, and San Luis Rey Homes and would not exceed City's design criteria maximum values. The connections to the sewer facilities located within or adjacent to the site are part of the overall construction of the proposed project and no additional environmental effects would occur beyond what is analyzed within this EIR.

The Water Utilities Department used the sewer computer model being updated as part of the sewer master plan update (projected completion date February 2015) to analyze existing gravity sewer infrastructure downstream of the project. The results show that under existing flow, approximately 950 feet of the existing 21-inch gravity sewer exceeds the depth of flow design criteria of two-thirds full. Adding the proposed project increases the depth of flow and would have an incremental impact on the sewer's capacity. The gravity sewer depth design criteria allows for a factor of safety so as not to create a public health and safety problem, and the depth of flow in the 21" section falls within the factor of safety. Based on the factual data of the applicable reports and the careful independent judgment of the City, in this setting, there is adequate capacity to serve the project's projected wastewater flows. No off-site expansion of sewer facilities is needed as part of this project. Therefore, the project would not cause an adverse environmental effect. However, the project applicant must pay an impact fee prepared by the City to address the incremental impact on the existing sewer capacity in accordance maintain consistency with the General Plan's Community Facilities Element Policies regarding

managing growth. so that it may be upsized at a future time when deemed appropriate. The impact fee is determined based on a proportional cost to upsize the sewer pipe. Therefore, impacts to the existing sewer conveyance facilities and impacts resulting from connection to the existing facilities would be less than significant.

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. On a normal day, the San Luis Rey Treatment Plant currently treats approximately 9.3 mgd; therefore, the San Luis Rey Treatment Plan does not utilize full treatment capacity during normal operations. Based upon the average sewer generation of 0.11 mgd, the proposed project would account for approximately 1% of San Luis Rey Treatment Plant's normal operational flows, and would not result in San Luis Rey Treatment Plant to exceed its capacity. As calculated in the sewer report, the proposed project would not result in a substantial increase in sewer generation such that the City would be required to expand its treatment facilities. However, the project applicant must pay an impact fee prepared by the City to address the incremental impact on the existing sewer capacity in accordance maintain consistency with the General Plan's Community Facilities Element Policies regarding managing growth. so that it may be upsized at a future time when deemed appropriate. The impact fee is determined based on a proportional cost to upsize the sewer pipe. Therefore, impacts would be less than significant.

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

A Storm Water Mitigation Plan (SWMP) was prepared for the proposed project by Buccola Engineering, Inc., and was utilized for analysis found in Section 4.8, Hydrology and Water Quality (see also Appendix H for full report). As discussed in Section 4.8, Hydrology and Water Quality, the existing 54 inch storm drain and 84 inch trunk storm drain would adequately serve the proposed project with the addition of on-site bioretention basins and desilting basins and incorporation of Low Impact Development practices. The SWMP proposes these drainage management facilities would be incorporated as part of the design of the proposed project in order to meet the requirements of the RWQCB Order No. R9-2007-0001. As such, the environmental effects of these proposed basins and other drainage management facilities is analyzed throughout the various sections of this EIR, and more specifically in Section 4.8, Hydrology and Water Quality where it was determined that the proposed drainage management facilities would not have significant environmental effects. Therefore, impacts would be less than significant.

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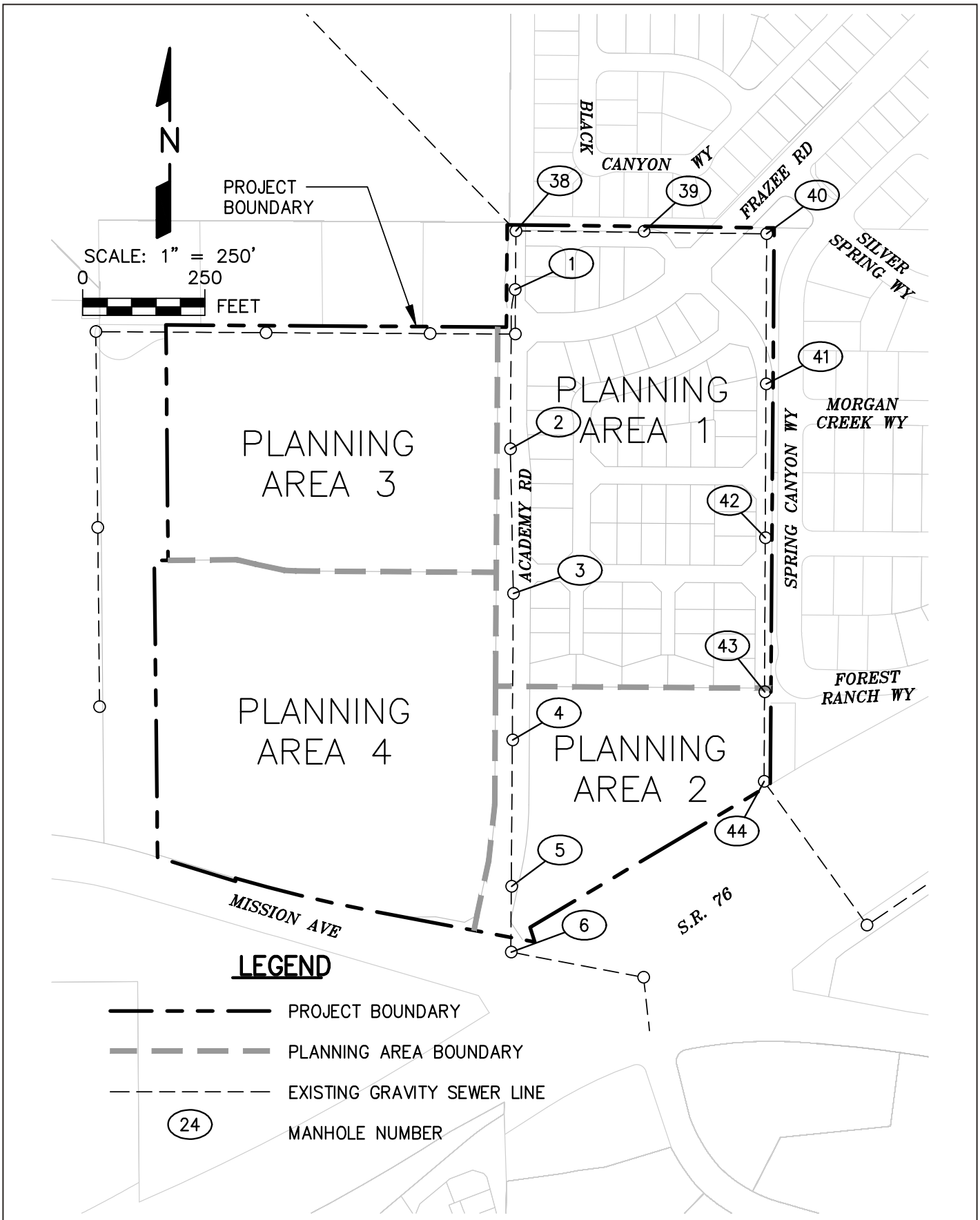
D. Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

The City of Oceanside Water Division purchases approximately 87% of its potable water supply from SDCWA treated at the Weese Plant and the remaining is drawn from groundwater treated at the Mission Basin Plant. SDCWA determined that no water supply shortages under normal year, single dry year, or multiple dry years would be expected through 2030 (City of Oceanside 2011a). Additionally, the City is planning to increase utilization of local sources, as described in the response (a), through expanding the Mission Basin Plant, establishing a desalination facility, and increasing recycled water use.

The proposed project would establish a maximum 420 dwelling units. Table 4.15-6 below outlines past and forecasted future water use for single and multi-family residential units, as provided in the City's UWMP.

According to the above Table 4.15-6, in 2010, the average single family unit used 0.31 acre-feet per year (AF/year) and the average multi-family unit used 2.13 AF/year. Based on these numbers, and utilizing the unit breakdown provided in Section 3.0, Project Description, the proposed project's 148 single family units would use an estimated 45.9 AF/year and the remaining 272 multi-family units would use an estimated 579.4 AF/year for a total of 625.3 AF/year for the entire project. Assuming full buildout, the proposed project would then account for approximately 0.031% of total projected water use in 2015 and 0.032% of total water use in 2020. These estimates are conservative as AF/year per unit numbers from 2010 were comprised of a broad mix of new and old development with different water uses. According to the City's Municipal Code Section 37.102, all new development shall install low flow showerheads and ultra-low flow toilets, as well as practice water conservation landscaping measures (City of Oceanside 2014a). In addition, according to the Greenhouse Gas Emissions Analysis prepared by Dudek, the proposed project was estimated to use approximately 48 million gallons per year, which equates to approximately 138.1 AF/year (Dudek 2015). Therefore, the percent contribution to the total water use within the City for the years 2015 and 2020 would likely be less than 0.031% and 0.032%, respectively.

The City and SDCWA both utilize SANDAG forecasted population growth numbers to calculate future water demand within the City and the region. This forecasted growth depends on data from each jurisdiction, which includes land use and population elements of a city's general plan. The proposed project would require a General Plan Land Use Amendment and zoning change for the whole of the site. Currently, the portion of the land west of Academy Road is designated as Private Institutional (PI) and the land to the east of Academy Road is designated as Single Family Detached - Residential (SFD-R). The proposed project would introduce a population greater than currently planned for by establishing a medium to high density residential development. This potential greater increase in population would not be reflected in any of the growth projections utilized by the City or SDCWA and would therefore not be accounted for in water demand projections.



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SOURCE: DEXTER WILSON ENGINEERING 2014

FIGURE 4.15-3
Existing Sewer Facilities

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Villa Storia PD Plan Draft Environmental Impact Report

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Table 4.15-6
Actual Past and Projected Future Water Deliveries

Year	Number of Accounts						Volume (AF/year)						Volume (AF/year) per Unit					
	SFR	*MFR*	*C*	*I*	*G*	*AG*	*SFR*	*MFR*	*C*	*I*	*G*	*AG*	*SFR*	*MFR*	*C*	*I*	*G*	*AG*
2005	37,242	1,997	1,505	1,104	276	137	14,531	4,929	3,159	4,912	1,065	2,204	0.39	2.47	2.10	4.45	3.86	16.09
2010	38,014	2,016	1,608	313	1,202	132	11,648	4,285	2,034	3,511	838	1,506	0.31	2.13	1.26	11.22	0.70	11.41
2015	39,359	2,189	1,695	1,231	300	150	15,327	5,078	3,418	4,220	1,049	2,701	0.39	2.32	2.02	3.43	3.50	18.01
2020	39,569	2,280	1,763	1,263	308	1,067	14,579	4,946	3,424	3,547	1,037	2,770	0.37	2.17	1.95	2.81	3.37	2.60
2030	41,730	2,306	1,982	1,332	325	162	14,443	4,850	3,741	3,827	1,051	2,924	0.35	2.10	1.89	2.87	3.23	18.05

Note: Numbers are for metered accounts. Each year denotes a fiscal year.
AF/year = acre-feet per year
SFR = Single Family Residential, MFR = Multi-Family Residential, C = Commercial, I = Irrigation, G = Government, AG = Agriculture
Source: City of Oceanside 2011a.

Due to the difference in current and proposed land use designations, any water used by the proposed project would be an increase beyond water use projections as described above. As stated in Section 15155 of the State CEQA Guidelines, a project (as it related to residential) would be considered a "water-demand project" if it is a residential development of more than 500 dwelling units, or a project that would demand an amount of water equivalent to, or greater than, that of 500 residential dwelling units. The proposed project does not fall under either of those two categories, or any other category, of projects that would be consider water-demanding. Therefore, a water supply assessment from the governing body of the public water system is not required of the proposed project. As discussed above, the proposed on-site infrastructure improvements and connections would adequately serve the project. Additionally, the project would result in a minimal contribution to overall water use projections within the City of Oceanside. Therefore, impacts would be less than significant.

E. 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?

See response (b) above. The proposed project would generate an average dry weather sewer flow of 0.11 mgd, as calculated in the sewer report. This wastewater generation would account for 1% of San Luis Rey Wastewater Treatment Plant's normal operational flows. The proposed project would not result in a substantial increase in sewage generation. No off-site expansion of sewer facilities is needed as part of this project. Therefore, the project would not cause an adverse environmental effect. However, the project applicant must pay an impact fee prepared by the City to address the incremental impact on the existing sewer capacity in accordance maintain consistency with the Ge neral Plan's Community Facilities Element Policies regarding managing growth. so that it may be upsized at a future time when deemed appropriate. The impact fee is determined based on a proportional cost to upsize the sewer pipe. Therefore, impacts would be less than significant.

F. Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

The proposed project site would be provided solid waste disposal services by Waste Management as with the rest of the City. The solid waste collected from the City is now disposed of at the El Sobrante Landfill located in Corona, CA. 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). The Greenhouse Gas Emissions Analysis prepared by Dudek (utilized for Section 4.6, Greenhouse Gas Emissions, and found in Appendix F) estimated that the proposed project would generate approximately 238 tons of solid waste per year, which equates to approximately 0.652 tons of solid waste per day

(Dudek 2015). The El Sobrante Landfill therefore has sufficient permitted capacity remaining to serve the proposed project. Additionally, the project would participate in the City's recycling programs, which would further reduce solid waste sent to El Sobrante Landfill. Therefore, impacts would be less than significant.

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

The proposed project would be subject to the Zero Waste Plan which is aligned with AB 341. The goal of both AB 341 and the Zero Waste Plan is to divert 75% of waste by 2020. The proposed project would be required to collaborate with the solid waste providers that service the City, such as Waste Management, Agri Service, Inc., and Moodys, in order to ensure proper compliance with the Zero Waste Plan. No development exists on the site, and grading would be balanced with cut and fill, therefore no demolition waste would be expected to be generated during construction. The waste related to construction would be limited to excess construction materials and solid waste discarded by construction workers on site and would last approximately three years. During the operational phase of the proposed project, waste would be generated by the residents living on site as well as workers associated with maintenance and landscaping on the site. During both construction and operation, the proposed project would comply with the City's Solid Waste and Recycling Code (Chapter 13 of the City's Municipal Code) by separating recyclables from solid waste. The project would also be required to comply with required solid waste and recycling measures as provided in the California Green Building Code. Collaboration with the applicable solid waste service providers would ensure compliance with the Zero Waste Plan and the relevant statutes that the plan addresses. Therefore, impacts would be less than significant.

4.15.5 Mitigation Measures

The proposed project would result in less than significant impacts; therefore, no mitigation is required.

4.15.6 Level of Significance After Mitigation

No mitigation is required as all impacts would be less than significant.