

Chapter 8: Grading, Utilities & Services

8.1 Grading Plan

Exhibit 8.1: Conceptual Grading Plan illustrates the general grading concept for Fanita Ranch. The site will be graded into development pads using a maximum 2:1 slope ratio for fill slopes and a maximum 1.5:1 for cut slopes. Internal manufactured slopes over 40 feet in height that are visible from the public rights-of-way, identified on the plan as “Public Interest” slopes, will utilize land form grading techniques to recreate and mimic the flow of natural contours and drainages within the natural surroundings.

Exhibit 8.2: Conceptual Cut and Fill shows the anticipated areas for cut and fill. The overall grading quantity is approximately 27,000,000 cubic yards and the site will be balanced with no import or export for the mass grading operation, which will reduce construction truck traffic. Grading will be contained within the Development Plan Area boundaries and will only extend beyond the boundaries where off-site grading and infrastructure improvements are required. Cuts up to 165 feet and fills up to 142 feet will occur on portions of Vineyard Village. Fill slopes over 40 feet in height are identified on the Fanita Ranch Vesting Tentative Map for City Council approval. The Special Use area is currently graded and no significant grading is proposed; however, fine grading in conformance with the “*Geotechnical Investigation for Fanita Ranch*” (see Fanita Ranch EIR Appendix G1-G3) may occur depending on the ultimate use of the area.

During construction, temporary aggregate plants will be utilized for rock crushing and production of aggregate materials for use associated in infrastructure construction onsite. The use of the on-site aggregate plants will reduce emissions attributed to transporting materials from off-site to the Development Plan Area for construction related activities and will terminate at project build-out. Rock crushing activities shall comply with the City’s noise standards¹ and regional air quality standards. All blasting shall be permitted and approved by the Santee Fire Department.

1. Drilling and blasting are not anticipated to occur in the same area for more than 10 consecutive work days and would occur during daytime hours. It is anticipated that no more than one blast would occur in one area per day.

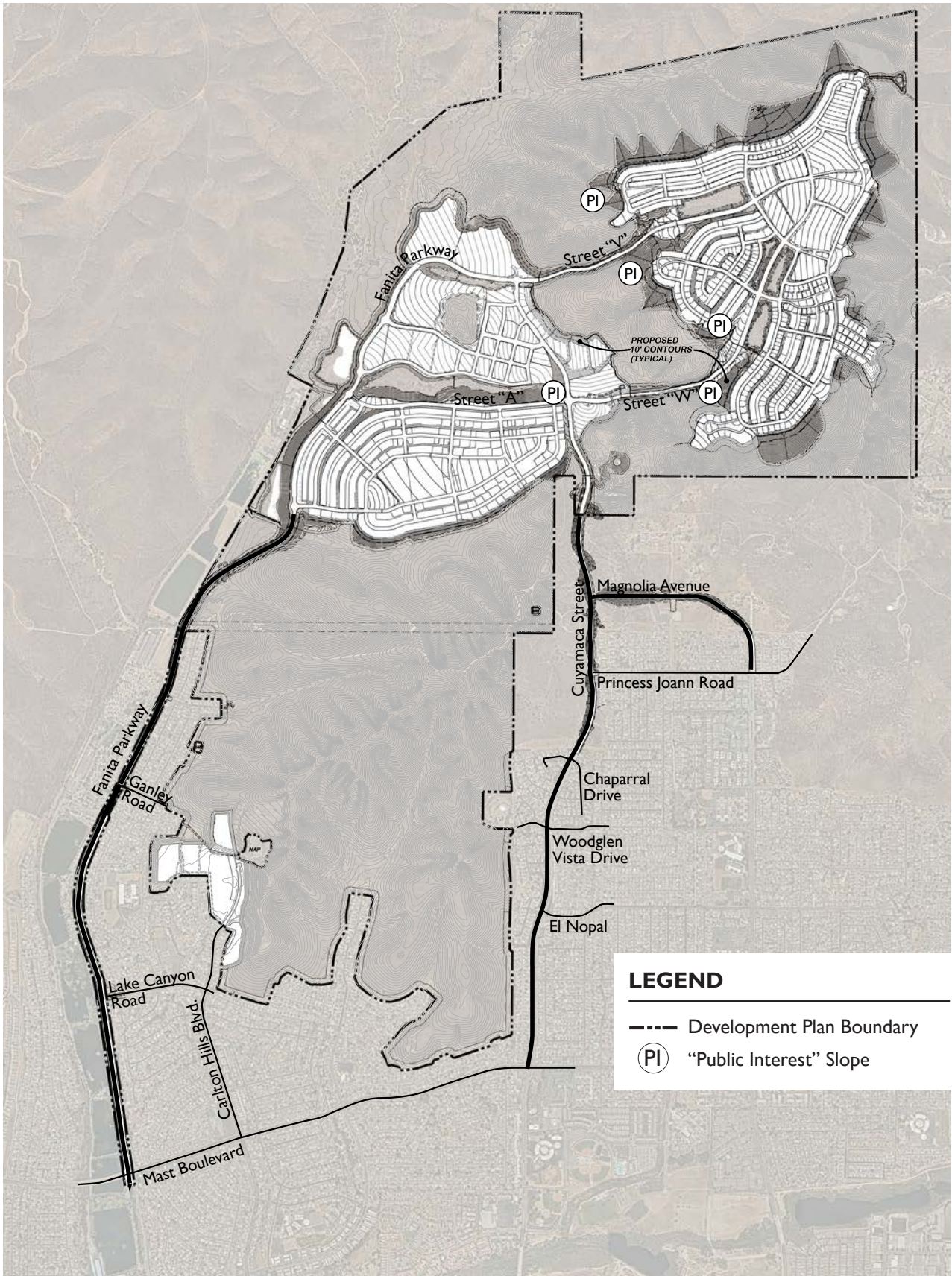

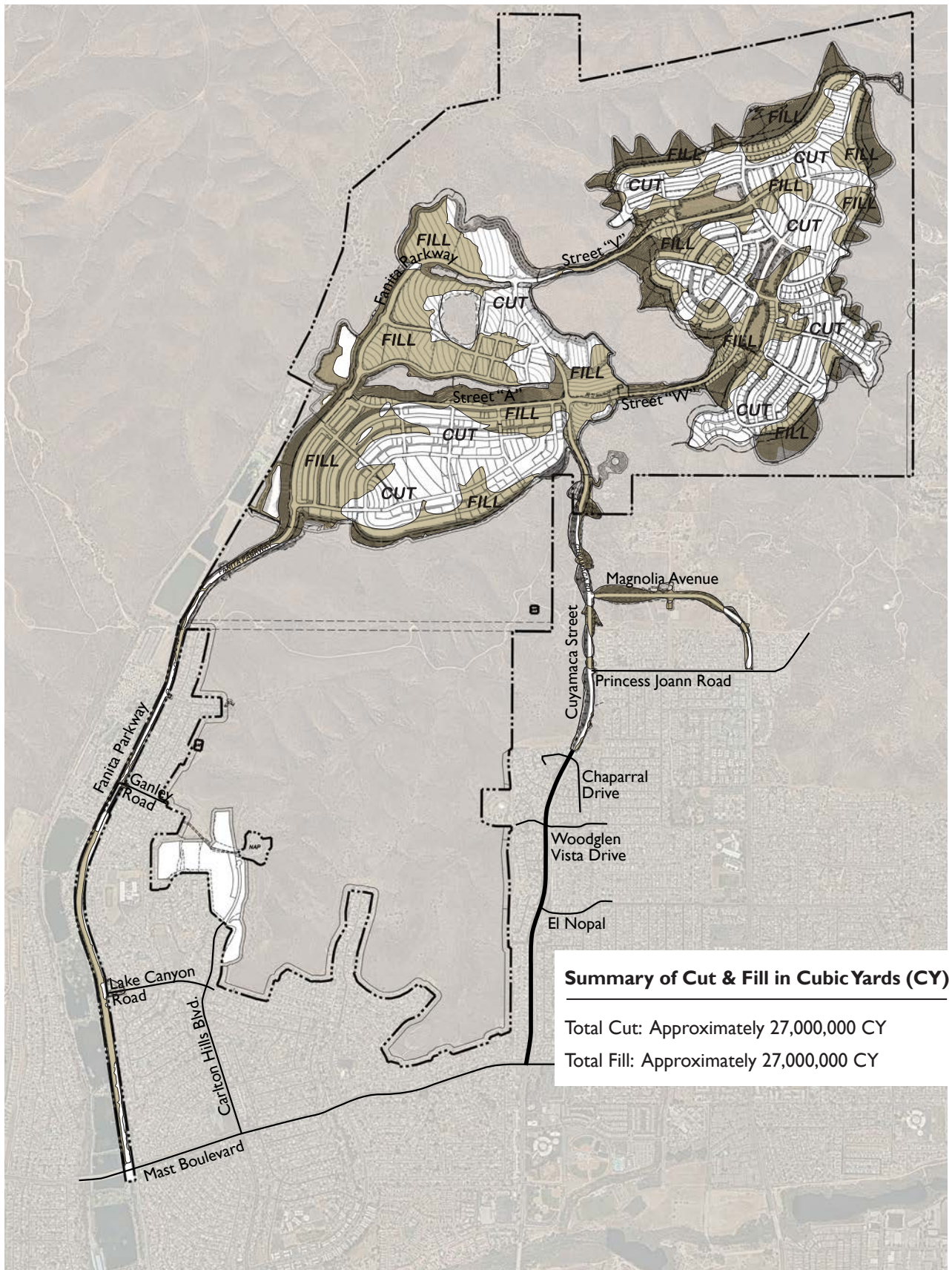


Exhibit 8.1: Conceptual Grading Plan

 *not to scale*




 not to scale

Exhibit 8.2: Conceptual Cut & Fill

A. Grading Design Standards

Except as described herein, grading within Fanita Ranch shall comply with the requirements of the City of Santee Municipal Code. The following grading design standards have been specifically provided to address the unique topography of Fanita Ranch, minimize the development footprint, and maximize the preservation of natural open space areas within the Development Plan Area:

1. Grading within Fanita Ranch shall be as efficient as possible to minimize the development footprint.
2. Grading should not be excessive beyond that necessary for the use, access and drainage of the site.
3. Grading shall be designed to minimize adverse environmental and visual impacts to surrounding properties by blending visible edges with the surrounding topography that occurs around the perimeter of the development area. Intersecting front and side slopes shall have corners rounded with a minimum radius of 5 feet.
4. “Public Interest” slopes within the Development Plan Area, as shown in *Exhibit 8.1: Conceptual Grading Plan*, that are visible from the public rights-of-way shall be designed to utilize land form grading techniques to recreate and mimic the natural contours and drainages.
5. Cut and fill slopes over 40 feet in height shall be identified on the Tentative Map and shall be specifically approved by the Santee City Council.
6. See “Geotechnical Investigation for Fanita Ranch” Section 8.3 for details and terrace drain recommendations and requirements (refer to Fanita Ranch EIR Appendix G1-G4).
7. Slopes exceeding 3 feet in height shall be protected by an erosion control program as soon as possible after grading.
8. A usable side yard of at least 3 feet from any building wall shall be provided where adjacent to the toe or top of a slope.
9. When placing fill slopes over steep hillsides, measures shall be taken to ensure stability, drainage and erosion control such as temporary mulching and seeding, sediment traps and basins, storm drain inlet protection and other erosion and sediment control BMPs. Grading activities shall comply with applicable provisions of the California Building Code, implement applicable BMPs listed in the City of Santee BMP Design Manual and the Guidelines for Surface Water Pollution Prevention, and incorporate grading-related project design features provided in the EIR for Fanita Ranch.

8.2 Drainage and Stormwater Management

Stormwater will be collected using low impact development (LID) techniques and best management practices (BMPs) near the source to ensure that runoff from the development area is treated for pollutant removal prior to discharging into the natural watershed. All stormwater will be treated in compliance with the applicable San Diego Regional Water Quality Control Board requirements.

The system will collect stormwater through a series of swales, catch basins and culverts that direct stormwater to hydromodification/water quality basins as illustrated in *Exhibit 8.3: Conceptual Storm Drain Plan*. This system will allow biofiltration, evapotranspiration and filtering of the stormwater to remove microscopic organisms, suspended solids, organic material, nitrogen and phosphorous. Treated stormwater from basins will drain into Sycamore Creek, then to the San Diego River.

Hydromodification allows water to be released into the Sycamore Creek and tributary watersheds at a rate that is consistent with existing natural flows. Energy dissipaters will be used where necessary to reduce the velocity of the stormwater discharges and minimize erosion. All stormwater flows will be released in compliance with the City of Santee BMP Design Manual dated February 2016.

Green Street principles and infrastructure are proposed for meeting water quality requirements for portions of Fanita Parkway, Cuyamaca Street, Carlton Hills Boulevard and Magnolia Avenue off-site where the roadways are proposed to be reconstructed or retrofitted. The Green Street approach integrates strategies into roadway design that help protect, restore, and mimic the natural water cycle such that runoff is encouraged to be percolated and/or stored in a more natural manner.

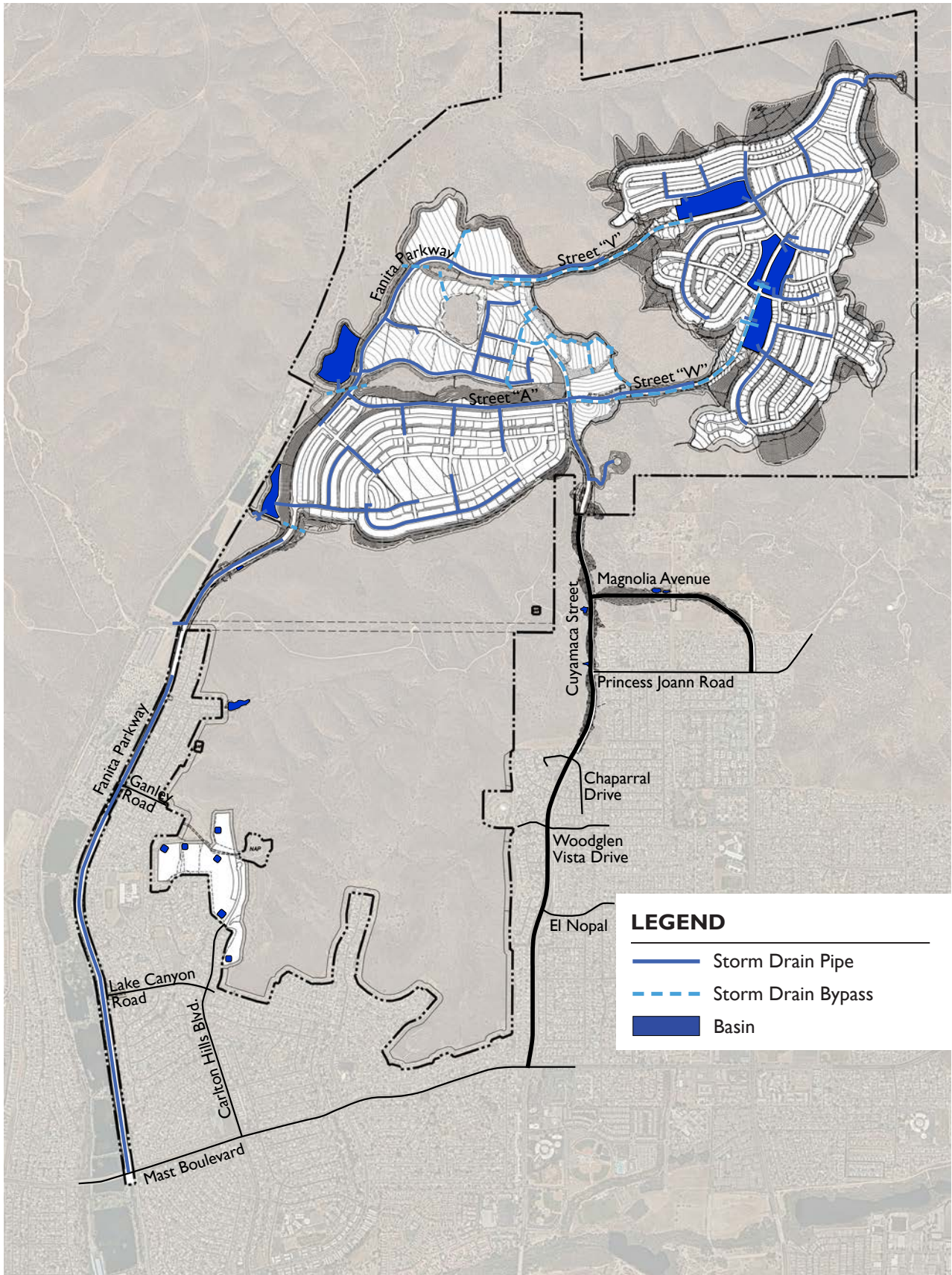


Exhibit 8.3: Conceptual Storm Drainage Plan

⊕ not to scale

8.3 Sewer

Padre Dam Municipal Water District (PDMWD) will provide sewer services for Fanita Ranch. A new gravity sewer system, consisting of 8-inch to 12-inch pipes, is proposed on-site to collect and convey wastewater to a 15-inch trunk sewer at the western edge of Orchard Village, as shown in *Exhibit 8.4: Conceptual Sanitary Sewer Plan*.

Sewer lines that are installed at greater than a 10% gradient will require lined manholes and odor control measures. Sewer lines installed at a gradient of greater than 15% will require special review and approval from the PDMWD Director of Engineering. Sewer mains shall not be installed at a depth greater than 14 feet without approval by PDMWD. Where pipelines are installed outside of the public right-of-way, easements will be required in accordance with PDMWD standards.

Ultimately, the wastewater will be conveyed by a gravity system west of Orchard Village through a 15-inch diameter pipe to a headworks facility that provides screening and grit removal specifically for Fanita Ranch's sanitary flows. In addition, Fanita Ranch must provide a gravity connection to existing 18-inch and 24-inch Metro System lines that connect the Ray Stoyer Water Recycling Facility (WRF) to the Metro System. The design of the headworks will meet PDMWD requirements, including redundant pumping units, screening/grinding of influent, backup power and telemetry. Fanita Ranch will be required to dedicate land for the headworks site to PDMWD. The Padre Dam Treatment Plant has adequate capacity to serve the Development Plan Area.

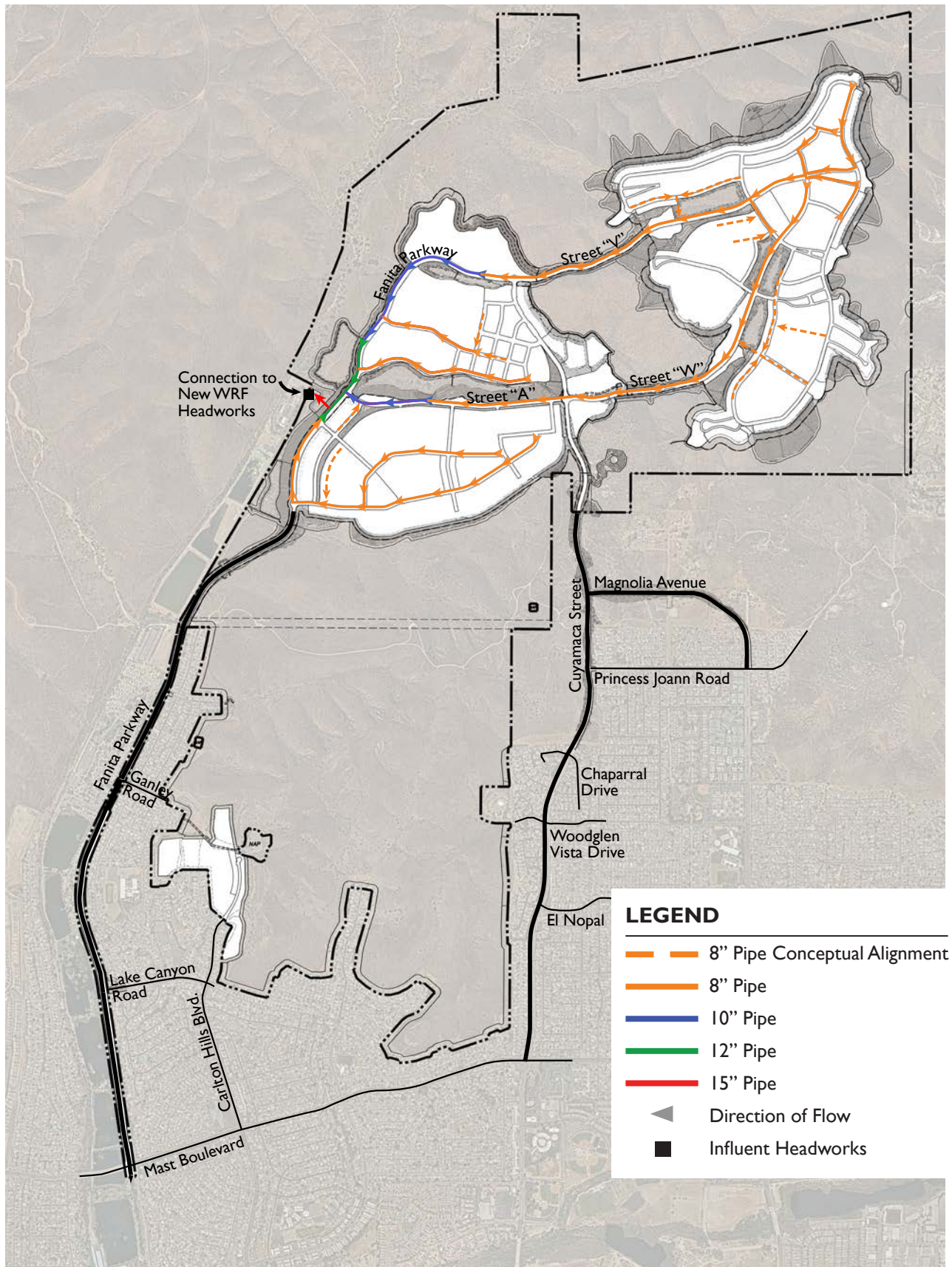


Exhibit 8.4: Conceptual Sanitary Sewer Plan

not to scale

8.4 Water

PDMWD will provide domestic water service to the Development Plan Area. A new domestic water system consisting of transmission and distribution pipes, two reservoirs and two pump stations will distribute potable water throughout the Development Plan Area. Water from the Carlton Hills Reservoir and Cuyamaca Reservoir will provide water for Fanita Ranch.

Fanita Ranch falls within three water pressure zones as shown in *Exhibit 8.5: Conceptual Water Plan*. Water will be conveyed from the 880 Zone by connecting to the existing system in Cuyamaca Street and Magnolia Avenue and extending a new transmission line in Cuyamaca Street to the Development Plan Area. A redundant feed of 880 Zone water to the Development Plan Area will be formed by connecting to the existing 629 Zone near the Carlton Hills Reservoir and constructing an 880 Zone pump station to pump water through a transmission line in Fanita Parkway to the Development Plan Area. The 880 Zone supplies to the Development Plan Area will feed a proposed onsite 880 Zone reservoir that is planned to the south of Street “W” and east of Cuyamaca Street.

A 1230 Zone pump station will be located to the north of the 880 Zone water reservoir. This second pump station will convey water to an onsite 1230 Zone reservoir with a capacity that serves the upper portions of Fanita Ranch. The lots located in the vicinity of the R-13 planning area (shown in *Exhibit 3.2: Site Utilization Plan*) will receive adequate fire protection service from the 1230 Zone system, but will also have private individual pumps to boost additional domestic service pressure. Masonry walls will be installed at the pump stations as indicated on *Exhibit 5.18: Conceptual Wall and Fencing Plan* to provide noise attenuation.

Since PDMWD has an existing 880 Zone reservoir in the system, the new proposed 880 Zone reservoir will consist of a single storage reservoir. Since the 1230 Zone will be formed by constructing new 1230 Zone reservoir, this storage will either require two reservoirs at this site or a single reservoir with two storage bays, or “tank in a tank” type design. The proposed 880 Zone and 1230 Zone reservoirs will be sized to accommodate the operational and fire flow storage needs for their respective service areas.

Fanita Ranch will require a redundant or looped water supply for fire protection and system reliability. Water mains will be installed in Fanita Parkway and Cuyamaca Street and shall be looped through the Villages to provide adequate domestic and fire flow service in the event of a disruption of water supply from one of the mains. In addition, redundant or looped water supply will provide additional fire flow in the event of a large water demand fire.

The water system for Fanita Ranch shall provide a minimum 2,500 gallons per minute for 3 hours fire flow for single-family and multi-family residential and 3,500 gallons per minute for 4 hours for commercial areas, with fire hydrants spaced every 300 feet on average. The water system shall be designed and installed per Padre Dam Water District and Santee Fire Department requirements.

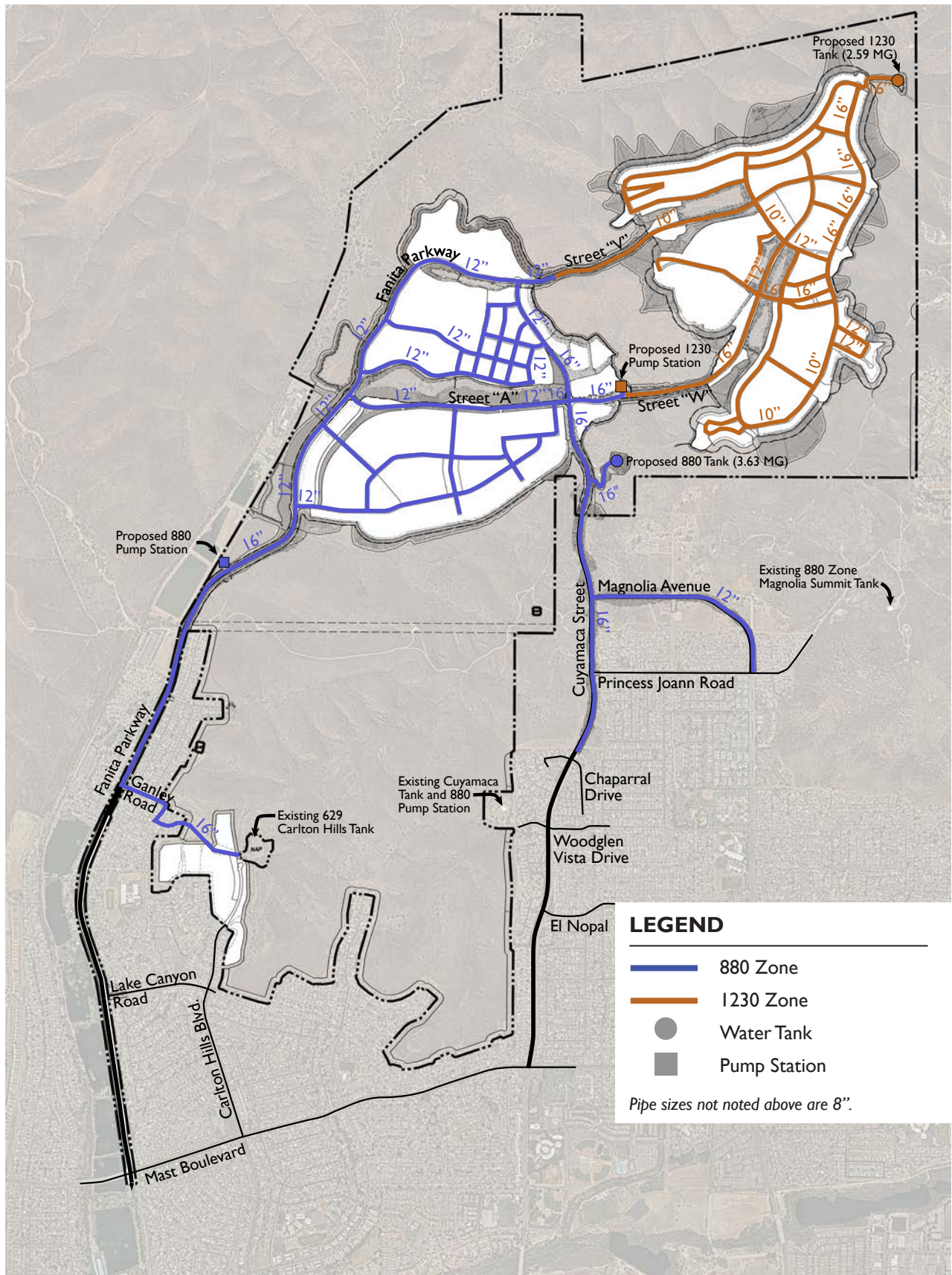



Exhibit 8.5: Conceptual Water Plan

 *not to scale*

The sizing of transmission lines, reservoirs and pump stations have been estimated on *Exhibit 8.5: Conceptual Water Plan*; however, the final sizing of these facilities will be determined by a water and sewer study being performed by PDMWD.

New buildings will be designed with the latest water efficient plumbing systems, fixtures and faucets. Native and drought tolerant landscaping will reduce the demand for irrigation water. Turf will be limited to active play areas. Where irrigation is needed, Advanced Treated Water provided by PDMWD will be used. Irrigation systems will use smart controllers to automatically adjust the amount and frequency of water based on current weather and soil conditions.

Mulching, hydrozoning and other water-conserving planting and maintenance techniques will be implemented in all common area and park landscaping. These techniques and water-wise education will be taught as part of a community education program at the Farm or elsewhere in Fanita Commons.

8.4.1 Recycled Water/Advanced Treated Water

PDMWD provides recycled water service for the Cities of Santee, El Cajon and Lakeside. PDMWD has historically planned for the expansion of its recycled water system, including the construction of facilities within Fanita Ranch; however, PDMWD is actively engaged in the planning and development of the proposed East County Advanced Water Purification (ECAWP) Program. PDMWD may provide recycled water to Fanita Ranch for construction purposes on a limited and seasonal basis, but PDMWD will not pursue expansion of their permanent recycled water system to serve Fanita Ranch or other future developments within the District.

Fanita Ranch will utilize water from the ECAWP Program. The majority of East San Diego County's water supply is imported from the Sacramento-San Joaquin River Delta and the Colorado River requiring hundreds of miles of transport and pumping. The result is high energy consumption, increased greenhouse gas emissions, and impacts to sensitive habitats. In recent years, California has experienced severe droughts which have made the availability of water uncertain, unreliable and expensive.

The ECAWP Program is anticipated to create a continuous localized, sustainable and drought-resilient potable water supply. Wastewater collected from throughout the District is treated at the Ray Stoyer WRF, which treats 2 million gallons of wastewater a day. This facility will use state-of-the art technology that involves four highly advanced water treatment steps:

1. Free Chlorine disinfection: Water is disinfected, making any viruses harmless.
2. Membrane Filtration: High pressure pushes water through filters with microscopic holes to filter out particles that are 300 times smaller than a human hair.

3. Reverse Osmosis: This process, which is also used to desalinate ocean water, compresses water between two membranes to filter out particles 100 times smaller than a human hair and 100 times smaller than a virus. It also removes salt, pharmaceuticals, and chemicals so that the resulting water is nearly distilled.
4. Advanced Oxidation: This process, which is also used to sterilize surgical instruments and baby food jars, exposes the water to UV light and hydrogen peroxide to sterilize and purify water to high State and Federal drinking water standards.

The purified water will be returned to Lake Jennings and aquifers for storage. The stored water is then treated one more time before being distributed through the potable water system. This new source of water will produce up to 30 percent of East County's current drinking water demands.

Advanced Treated Water offers a more cost-effective and efficient alternative to recycled water, which requires dual piping and has limited applications. Advanced Treated Water also has the advantage over recycled water in that it can be supplied in proportion to demand, whereas recycled water continues to be generated during wet weather and must be stored or disposed of. Because the Advance Treated Water is treated to drinking water standards, it can be used for any purpose and no additional pipes or facilities are required since water can be distributed through the domestic water system. This technology results in a reliable, new supply of water within Fanita Ranch and throughout the region and reduces the region's dependency on outside water sources. It also conserves energy, reduces greenhouse gas emissions, decreases discharge into oceans and lessens impacts to sensitive habitats.

8.4.2 Water Conservation

The landscape palettes provided in *Chapter 5: Landscape Architecture, Community Design & Outdoor Lighting Design Plan*, consisting of native and drought tolerant landscape palettes, are consistent with Chapter 13.36 "Landscape and Irrigation Regulations" of the SMC and the California Model Water Efficient Landscape Ordinance (MWELO). In addition, all new development is subject to CALGreen, which includes requirements for low flow toilets and fixtures, water efficient appliances, and water efficient irrigation. Builders are encouraged to exceed code requirements by pursuing CALGreen's voluntary measures regarding water conservation.

8.5 Dry Utilities

San Diego Gas & Electric Company (SDG&E) provides electricity and natural gas for San Diego County including Santee. These utilities will be extended into Fanita Ranch from existing local distribution systems in the region. A pre-existing SDG&E electrical transmission easement traverses east to west through the Habitat Preserve within the Development Plan Area. New electric and natural gas facilities will be installed in joint utility trenches within the public street rights-of-way as required by the City of

Santee. In conjunction with gas and electric facilities, telephone and cable television/internet facilities also will be constructed.

The Development Plan includes sustainability features that promote energy conservation, renewable energy and climate protection, consistent with the City's Sustainable Santee Plan. A summary of the key sustainability features is provided in *Section 9.5: Smart Growth & Sustainable Community*.

8.6 Fire Protection

Fanita Ranch is located in a very high fire hazard severity zone. Due to its hillside location and surrounding natural open space areas, Fanita Ranch has been designed to incorporate a variety of design features aimed at reducing the risk of fire. The Fanita Ranch Fire Protection Plan (FPP), Wildland Evacuation Plan and Fanita Ranch Construction Fire Protection Plan (CFPP) establish comprehensive fire protection through a system of fire safety features and design measures that have proven to perform well in wildland/urban interface and very high fire hazard severity zones. The system of fire protection includes a redundant layering of measures so that no single feature is relied upon for protection.

Fanita Ranch would convert flammable natural fuels to highly ignition-resistant structures, hardscape, and maintained urbanized landscapes. Ignition-resistant features of project structures include: application of the latest adopted ignition-resistant building codes; non-flammable roofs; exterior wall coverings are to be non-combustible or ignition resistant; multipane glazing with a minimum of one tempered pane; ember-resistant vents (BrandGuard, O'Hagin, or similar vents); and interior, automatic fire sprinklers to code for occupancy type.

Fanita Ranch would also include substantial FMZs of 115 to 165 feet, which exceed standards; 50-foot roadway FMZs where adjacent to wildland areas; a funded entity to manage and maintain the FMZs; and third-party biannual FMZ inspections to confirm the FMZ areas are maintained as designed to function intended. An additional 100-foot FMZ at the site perimeter adjacent to the existing neighborhood to the south would also be provided, monitored, and maintained to further reduce fire risk to existing residences.

Prompt firefighter response on- and off-site within a six-minute overall response time standard (four-minute travel time), would be ensured by the provision of an onsite fire station. Fanita Ranch also includes water pressure and fire flow consistent with code requirements and provides fire hydrants throughout the community. Modern infrastructure will further reduce fire risk.

Fanita Ranch includes at least two major ingress-egress routes (Fanita Parkway and Cuyamaca Street) during a fire to allow for emergency response and evacuation. These routes will connect to three arterial roads and numerous other roadways that would allow travel south, west, east, and north once offsite.

Onsite, adequately sized internal streets will accommodate fire apparatuses and allow evacuation traffic circulation and emergency response to all portions of the development areas. The community trails and pathways will also be accessible for emergency access at numerous locations within the community. The open space trail network will be accessible via trail access points located along the perimeter of the development area.

8.6.1 Fire Station

Fire service would be provided by the Santee Fire Department (SFD). The anticipated project population and number of calculated emergency calls would affect the response capabilities of SFD's nearest existing stations. Additionally, the calls from the community would not be responded to within the City's response time goals from existing stations. As such, Fanita Ranch would include a new SFD-approved, on-site station (Fire Station 20) upon first occupancy that is capable of responding to all of the project's buildable lots within the City's General Plan six-minute overall response time standard (four-minute travel time). The new fire station would be fully staffed and equipped to operate 24 hours a day, 7 days a week. Additionally, the off-site effective fire fighting force (3 engines, 14 firefighters, and battalion chief) can be on site within eight minutes, consistent with National Fire Protection Association (NFPA) 1710 Standard.

8.6.2 Fire Protection Plan

The FPP (see Fanita Ranch EIR Appendix P1) identifies the fire risk associated with Fanita Ranch's planned land uses, as well as requirements for fuel modification, building design, construction and other pertinent development infrastructure criteria for fire protection. The primary focus of the FPP is providing an implementable framework for suitable protection of the planned structures and the people living and using them. Tasks completed in the preparation of the FPP include review of the Fanita Ranch Wildland Fire Evacuation Plan and CR Associates' Evacuation Timeframe Modeling Results (see Fanita Ranch EIR Appendix P2), data review, code review, site fire risk analysis, land use plan review, fire behavior modeling and review of a previous site FPP. The following project features are required and form the basis of the system of protection necessary to minimize structural ignitions and facilitate access by emergency responders:

- Application of the latest adopted ignition resistant building codes;
- Non-flammable roofs;
- Non-combustible or ignition resistant exterior wall coverings;
- Multi-pane glazing with a minimum of one tempered pane;
- Ember resistant vents;
- Interior, automatic fire sprinklers for all new structures;
- Modern infrastructure, access roads and water delivery systems;
- Ignition-resistant landscape and hardscape;
- Maintained FMZ surrounding Fanita Ranch, travel routes, and adjacent homes to the south; and

- For emergency ingress and egress, two emergency access routes off-site, off-site road improvements, and fire apparatus access roads provided throughout Fanita Ranch.

8.6.2.1 Fuel Modification Zones

An important component of a fire protection system is the provision for ignition resistant landscapes and modified vegetation buffers. Fuel modification for Fanita Ranch is proposed for the entire exterior perimeter, along roadways and interior landscaped areas adjacent to natural open space, and along the project's southern property line. Fuel modification in Fanita Ranch is governed by the Fanita Ranch FPP. Below is a summary description of residential lot FMZs. Detailed information on the cross sections, plant selections, maintenance and management of the FMZs and other vegetation management areas is provided in the FPP.

At Fanita Ranch, some residential lots located adjacent to natural open space around the perimeter of the development have a different configuration than interior lots. For these perimeter lots, the rear property lines are located 50 feet from the top or toe of the slope at the back of the building pad. The property owner will manage and maintain the first 15 feet of the slope and the HOA will have a maintenance easement over the next 35 feet of the slope. A tubular steel boundary fence will mark the limit between homeowner-maintained and HOA-maintained landscaping.

- **Zone 1A – Setback Zone (minimum 15 feet wide):** Zone 1A is the first 15 feet or more of the rear or side yard from the furthest projection of the structure (e.g. the outer edge of the eave) to the top or toe of the slope for any structure that is adjacent to natural open space. This area will consist of low fuel density, ignition resistant landscaping including hardscape, turf and permanently irrigated and maintained landscaping. This area will be planted with drought-tolerant, less flammable plants from the FPP's Plant Palettes. Building restrictions apply within this area pursuant to the FPP. Zone 1A will be maintained by the property owner. No California Rooms, permanent or portable fire pits, outdoor fireplaces, or flame-generating devices that burn wood are allowed within Zone 1A. Fencing within all lots that are directly adjacent to open space or naturally vegetated areas shall be constructed with non-combustible materials (stone, block, fire-rated wood, treated vinyl, etc.) or materials approved by the Santee Fire Department. Property owners will be responsible for ensuring that rear or side yard landscaping is maintained for annual inspection as required by the FPP.
- **Zone 1B – Irrigated Zone (minimum 15 feet wide), Where Required:** Zone 1B will be 15 feet wide, starting at the outer edge of Zone 1A (top or toe of slope) and moving outward towards Zone 1C to a tubular steel boundary fence. This fuel modification area will be planted with drought-tolerant, less flammable plant species from the FPP's Plant Palettes. Vegetation in this area shall be kept in a well-irrigated condition and cleared of dead materials. Trees are allowed in this area if placed and trimmed as specified in the FPP. Zone 1B will be a property owner managed and maintained area. All structures, including fencing, decks, arbors, etc. will require approval by the

Santee Fire Department. Property owners will be responsible for ensuring that Zone 1B landscaping is maintained for annual inspection.

- **Zone 1C – Irrigated Zone (minimum 35 feet wide/50 feet wide if no Zone 1B):** The standard Zone 1C will be 35 feet wide, starting at the Zone 1B boundary fence and moving outward to Zone 2. Where the property line is located at the top or toe of the slope at the back edge of the building pad and there is no Zone 1B, Zone 1C will be 50 feet wide. This fuel modification area will be planted with drought-tolerant, less flammable plant species from the FPP’s Plant Palettes. Vegetation in this area shall be kept in a well-irrigated condition and cleared of dead materials. Trees are allowed in this area if placed and trimmed as specified in the FPP. Zone 1C requires year-round maintenance by the HOA.
- **Zone 2 – Retain 30% of Vegetation (50 to 100 feet wide):** Zone 2 adjoins Zone 1C on its outer edge and measures 50 to 100 feet in width. In this Zone, no more than 30% of the native, non-irrigated vegetation will be retained. Plants for revegetation shall consist of species found on the FPP’s Plant Palettes. No plant listed in the FPP’s Prohibited List shall be planted or remain in Zone 2. This area requires inspection and periodic maintenance by the HOA.

8.6.2.2 Other Vegetation Management

Vegetation maintenance and management and fire safety measures for the vegetation management areas listed below shall be in accordance with the provisions included in the FPP:

- Fuel Modification Zones for Existing Communities
- Special Use Area Fuel Modification Zones
- Roadside Fuel Modification Zones
- Farmland – Row Crops, Orchards or Vineyards
- Parks and Greenways
- Trail Vegetation Management
- Additional Tree Planting and Maintenance
- San Diego Gas and Electric Easement
- Water Detention/Treatment Basins
- Interior Manufactured Slopes
- Environmentally Sensitive Areas/Open Space/Riparian Areas
- Vacant Parcels and Lots
- Private Lots

8.6.2.3 Fuel Modification Maintenance and Compliance Inspection

Vegetation management will be completed annually as determined by the Santee Fire Department. Homeowners and private lot owners will be responsible for all vegetation management on their lots in compliance with the FPP. An approved maintenance entity will perform FMZ maintenance in all Villages and community FMZs. The HOA will be responsible for long-term funding and ongoing compliance with all provisions of the FPP. The HOA for Fanita Ranch will obtain an FMZ inspection and report from a qualified 3rd party inspector approved by the Santee Fire Department in May and September of each year certifying that vegetation management activities throughout Fanita Ranch have been performed pursuant to the FPP.

8.6.3 Wildland Evacuation Plan

The Fanita Ranch Wildland Evacuation Plan (WEP) (Fanita Ranch EIR, Appendix P2) focuses on resident and community awareness and preparedness. The WEP provides an evacuation route map along with family evacuation preparation tools that will result in faster evacuations and a populace that understands the potential wildfire threat and actions they may be directed to take.

The Project would provide two major routes out of the site for ingress and egress during an emergency (Fanita Parkway and Cuyamaca Street), would not cut off or modify existing evacuation routes, and would provide roadway improvements to improve evacuation, including the Magnolia Avenue extension. Further, internal roadways and off-site travel routes (Fanita Parkway, Cuyamaca Street, and the Magnolia Avenue extension) would be adequately sized for emergency response, and would be designed as fuel-modified passageways for emergency response and evacuation, consisting of inflammable asphalt/hardscape with ignition-resistant irrigated landscaping with an additional minimum 50-foot buffer of modified fuel areas along both sides of the road. These fuel-modified passageways would improve evacuation safety and act as a fire break in a wildfire event.

The WEP was prepared based on the 2018 Unified San Diego County Emergency Services Organization and County of San Diego Operational Area (OA) Emergency Operations Plan (County EOP), its Evacuation Annex Q (Evacuation Annex Q), and the 2020 City of Santee Emergency Operations Plan (City EOP), which references the County EOP for purposes of evacuation planning. These plans provide a framework for implementing well-coordinated emergency response and evacuations between many agencies, organizations, and jurisdictions. In the event of a wildfire or other emergency, the agencies follow these pre-plans and utilize experience, situational awareness, and available resources to move people from areas of higher, to areas of lower, potential risk. The Proposed Project provides supplemental project-specific information to these plans and informs area residents of what they can anticipate during an evacuation event. In the event of an actual wildfire emergency, law enforcement and fire agencies charged with managing evacuations likely would not refer to a project-specific evacuation plan, but would rely on the protocols established by these pre-plans (EOPs and Evacuation Annex Q) as a “playbook” to use. In an actual emergency, unified command will take into account

numerous factors including wind speeds and direction, humidity, topography, fuel loading, emergency access routes, evacuation routes, shelter-in-place options, time needed to evacuate, fire-hardening of structures (or lack thereof), and other variables, and will issue specific evacuation or shelter-in-place directives consistent with the process and protocols outlined in the City and County's EOPs.

Law enforcement and fire agencies charged with managing evacuations likely would not refer to a project-specific evacuation plan when implementing an emergency evacuation. However, the Fanita Ranch Evacuation Plan acts as a site-specific supplement to the EOPs, describing the "playbook" for evacuation of the site based on the County and City EOP.

Pursuant to the WEP, Fanita Ranch will implement a community outreach and education program to ensure that residents and visitors will be fire-aware, have regular reminders of fire safety practices and be encouraged to sign up for Reverse 911. Residents will also be encouraged to prepare personal action plans following the "Ready, Set, Go!" evacuation model. The condensed version of the WEP would be provided to homeowner's, renters, business owners and employees, and other persons regularly at the site. In addition, the evacuation plan would be posted on the community's website with regular reminders so that all residents are aware of the evacuation routes, of the fluidity of wildfire events, and of the options (including evacuation routes, temporarily sheltering on-site, etc.) that may be presented to them by responding law enforcement and/or fire personnel, Reverse 911, or other officials.

In the event of an evacuation, the City and County EOP provides for implementation of protocols to phase evacuation effort control downstream traffic. The purpose of a phased evacuation is to reduce congestion and transportation demand on designated evacuation routes by controlling access to evacuation routes in stages and sections. This strategy can also be used to prioritize the evacuation of certain communities that are in proximity to the immediate danger. Law enforcement agencies in Santee are able to use grid maps and geo-target certain areas for evacuation notifications, triggering phased or focused evacuations. Law enforcement is thus able to stagger evacuations to decrease the volume of evacuation traffic at any one time.

Downstream traffic control would be coordinated by law enforcement agencies, the OA EOC, and affected jurisdictions. The SDSD and Caltrans are able to control downstream traffic through traffic signal control, use of officers, barricades, and other means to further alleviate capacity issues for areas subject to evacuation. Real-time cameras at intersections allow for the evaluation and adjustment of traffic, as needed. SDSD will direct traffic in an evacuation scenario to safe and available roadways. Where appropriate, contraflow can be implemented, whereby SDSD can make additional lanes available by reversing the normal flow of traffic on a roadway. For instance, two southbound and two northbound lanes could be shifted to provide four southbound lanes to better evacuate an area. The WEP defers to Law Enforcement and OES to appropriately phase evacuations, control downstream traffic, and to consider the vulnerability of communities when making evacuation decisions.

Representative evacuation traffic time modeling in the WEP shows that, conservatively assuming all the Fanita Ranch's residences would be occupied and evacuated, Fanita Ranch residents and the existing surrounding community can be safely evacuated. To ensure the safety of Fanita Ranch occupants and the surrounding community, first responders may implement strategies to safely evacuate those populations most at risk by adjusting evacuation targeting and phasing, adjusting the lead time given in issuing evacuation orders, adjusting evacuation traffic control methods (such as controlling downstream traffic lights or officers directing traffic), or implementing contraflow.

In the event evacuation off-site is not recommended because of the increased risk of evacuating (i.e., if a fire ignites proximate to the community), Fanita Ranch's fire prevention features and shelter-in-place contingency will further mitigate risks to public safety. Shelter-in-place may be implemented in a manner where residents are instructed to remain in their homes while firefighters perform their structure protection function; or it would allow for partial relocation, whereby residents in perimeter homes on the north/west/east edges or within certain individual neighborhoods onsite are temporarily relocated to internal areas or to the Fanita Commons Village Center. These areas represent the most fire-protected areas of the site in the event residents were instructed not to evacuate. This shelter-in-place or temporary refuge contingency may allow fire resources to be directed towards controlling the fire as the community acts as a "fire break" and focusing efforts on defense of less fire-resistant communities.

8.6.4 Construction Fire Protection Plan

The Fanita Ranch Construction Fire Prevention Plan (CFPP) (Fanita Ranch EIR Appendix P1) provides basic direction for fire safety awareness on the Fanita Ranch project site during construction. CFPPs do not anticipate every potential fire scenario that may occur during construction but attempt to educate site personnel to the very real danger associated with fire ignitions. Fire ignitions can, if they involve site or off-site vegetation under certain weather conditions, develop into large scale wildfires that burn many acres and can threaten public and private assets. Therefore, the CFPP provides standard protocols and approaches, including Red Flag Warning weather restrictions, for reducing the potential of ignitions for typical construction site activities. When employed, the concepts discussed in the CFPP will help minimize and avoid ignitions, as well as ensure any ignitions are promptly extinguished while they are small and controllable.

Vegetation management requirements will be implemented at construction commencement and throughout the construction phase. Vegetation management will be performed pursuant to the FPP and the Santee Fire Department requirements on all building locations prior to the start of work and prior to any import of combustible construction materials. Adequate fuel breaks, as approved by Santee Fire Department, will be created around all grading, site work and other construction activities in areas where there is flammable vegetation. Fuel breaks will range between 50 and 150 feet around grading activities.

8.7 Law Enforcement

Law enforcement services will be provided by the San Diego County Sheriff's Department (SDCSD) through an existing contract with the City of Santee. The Sheriff operates two facilities in Santee. The primary department offices are located at 8811 Cuyamaca Street and a storefront facility is located in the Santee Trolley Square Center. The Village Center land use designation permits a law enforcement substation within Fanita Commons for future expansion of law enforcement services if necessary.

8.8 Solid Waste and Recycling

8.8.1 Solid Waste and Recycling

Commercial and residential trash hauling, as well as industrial solid waste, green waste and recycling collection and disposal services are provided by Waste Management Inc. under a contractual franchise agreement with the City of Santee. Waste Management provides trash, recycling and yard waste pickup services on a weekly basis for residential customers and up to seven times per week for business customers. Santee homeowners are eligible for two free passes per year to dispose of bulky items, concrete, or up to one ton of other forms of solid waste at the Sycamore Landfill. Nonresidential development and attached residential development (except as noted herein) in Fanita Ranch shall comply with the trash enclosure requirements provided in *Section 3.2.11.7: Trash Enclosures* of the Development Plan. Detached residential development and attached residential development where private garages are attached to individual units will participate in the Waste Management's residential curbside pickup program. Solid waste containers for these dwellings, which will be stored in private side or rear yards or garages, will be picked up from the street curbside or private residential driveway edge on collection days.

A private company operates the 349-acre Sycamore Landfill (permit number 37-AA-0023) just outside the western City limits at 8514 Mast Boulevard at West Hills Parkway. The landfill's ultimate capacity is listed as 71 million cubic yards, with an estimated remaining capacity of 39 million cubic yards. It is estimated to continue in operation as an active disposal site until at least 2042. The final use of the landfill site after closure has not been decided.

Waste and recycling, including construction waste and recycling, will comply with CALGreen and current regulations, as may be amended from time to time, designed to divert waste from landfills.

8.8.2 Material Conservation and Waste Reduction

Proposed development within the Development Plan Area contemplates the use and reuse of onsite rock materials such as large boulders, rock cobble, decomposed granite and processed rock.

Prior to the mass grading operation, large boulders destined for reuse would be identified and moved to a staging area. During the grading operation these boulders would be placed at strategic and aesthetically pleasing locations within the development area.

There are large quantities of rock cobble existing onsite. Rock cobble will be collected and used in the construction of water quality and landscape features. It is also anticipated that a rock crushing operation would be permitted and set up onsite during construction. The rock crushing operation will produce roadway sub-base and other aggregate materials for use onsite.

In addition to rock materials, there are large deposits of decomposed granite onsite, which will be used onsite for certain trail and other landscape related purposes.

Utilization of these onsite materials eliminates the need for importing rough or finished materials thus reducing construction related vehicle emissions in support of the Sustainable Santee Plan.

The guidelines provided in *Chapter 6: Architectural Design Guidelines* include recommendations for efficient home designs that can potentially reduce the amount of lumber and other building materials needed. Strategies include simple massing forms and efficient framing techniques, use of rapidly renewable resources, and installation of durable material that require less frequent replacement.

Recycling will meet state-wide mandates that require significant recycling effort during and after construction. In addition, the Farm may offer composting and recycling facilities for residents and encourage residents to compost and recycle at home through various educational programs.

8.9 Education

The School land use overlay reserves a site for a potential school or other educational uses. If pursued by the Santee School District, the site could accommodate a K-8 school for up to 700 students, including new students generated by development of the Development Plan Area. High school students in Fanita Ranch are anticipated to attend existing Santee schools in the Grossmont Union High School District.

The school site is located adjacent to the Community Park, Village Center and a neighborhood park to further establish Fanita Commons as the heart of Fanita Ranch. Strong visual and physical connections should be established between the school site and these adjacent uses through careful placement of buildings and other school open spaces to support interaction and synergy.

If the site is not acquired for a public or private school use within two years of approval of the final map for the phase in which the site is located, the site may be developed consistent with the underlying Medium Density Residential land use designation as described in *Section 3.2.5: School (S) Overlay*, subject to the density transfer requirements set forth in *Section 10.7.1: Administrative Amendments (Minor Modifications)*.