

# NOTICE OF PREPARATION

**Date:** February 28, 2018

**To:** California Office of Planning and Research, Responsible and Trustee Agencies, and Interested Parties

**Subject:** Notice of Preparation of a Draft Environmental Impact Report

**Project:** State Water Interconnection Project

**Lead Agency:** City of San Buenaventura

**Review Period:** February 28, 2018 through March 30, 2018

This Notice of Preparation (NOP) has been prepared to notify responsible and trustee agencies and the public that the City of San Buenaventura (City of Ventura/City), as the Lead Agency, will prepare an Environmental Impact Report (EIR) pursuant to the California Environmental Quality Act (CEQA) for implementation of the State Water Interconnection Project. A description of the proposed project is attached to this Notice of Preparation and summarized below.

**Project Description Summary:** The project would enable delivery of State Water Project (SWP) water by wheeling water through the Metropolitan Water District of Southern California (MWD) and Calleguas Municipal Water District (Calleguas) water systems to the City of Ventura. The connection would also facilitate direct delivery of SWP water to United Water Conservation District (United) and direct or in-lieu<sup>1</sup> delivery of SWP water to Casitas Municipal Water District (Casitas). In addition, the interconnection would allow the City to deliver water to Calleguas during an outage of its imported water supplies. The interconnection would be a pipeline used to transport water between Calleguas' and the City's distribution systems. A detailed project description is attached.

**Project Location:** The pipeline would be approximately 7 miles in length originating in the southern portion of the City (Henderson Road between South Saticoy Avenue and South Wells Road) and traversing southerly and easterly through unincorporated Ventura County to the southwestern end the City of Camarillo (near the intersection of Camino Tierra Santa and Via Zamora). A detailed map of the proposed project location is provided with the attached project description.

**About the Lead Agency:** The City of Ventura water and wastewater department (Ventura Water) provides water and wastewater services to approximately 112,500 persons through 32,000 service connections. Ventura Water is responsible for supply and delivery of potable water to its customers and also operates the Ventura Water Reclamation Facility which provides tertiary treatment of the wastewater from the wastewater service area.

**Potential Environmental Impacts:** The EIR will consider project-specific environmental impacts directly and indirectly attributable to project components. The project may have significant environmental impacts on the following resources: air quality and greenhouse gas emissions, biological resources, cultural resources, geology and soils, hazards and hazardous

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<sup>1</sup> In-lieu delivery means that the SWP would be delivered to a Ventura Water customer in the Casitas service area, rather than directly delivered to Casitas, and this would offset demand on the Casitas system.

materials, hydrology and water quality, noise, and transportation/traffic, and may have cumulative impacts.

Air Quality and Greenhouse Gas Emissions. Construction and operation of the project would cause air emissions. Air emissions would result from construction equipment exhaust, ground disturbance during construction, materials hauling, and construction employee commute travel. The EIR will estimate pollutant emissions from construction and operational activities and will develop mitigation measures as necessary to avoid, minimize, or offset potential impacts.

Biological Resources. Construction of the project could require operating construction equipment in and adjacent to wildlife habitat and areas known to support breeding birds, such as the Santa Clara River and local creeks. The EIR will evaluate the presence of candidate, sensitive, or special status species and their habitat within the construction area. The EIR will develop mitigation measures as necessary to avoid, minimize, or offset potential impacts.

Cultural Resources. The project would require construction of facilities and pipelines that could disturb known or unknown archeological sites, paleontological resources, and/or human remains where ground disturbing activities occur. The EIR will assess the potential effects of the proposed project on cultural resources, including archaeological, historic, paleontological, and Native American resources, and will develop mitigation measures as necessary to avoid, minimize, or offset potential impacts.

Geology and Soils. The project is located within a region of California that is seismically active. The proposed project would construct a pipeline that could be subject to potential seismic and geologic hazards, including ground shaking, liquefaction, soil instability, soil erosion, expansive soils, and landslides. The EIR will describe applicable standards and policies that would apply to the project that could mitigate or avoid potentially significant effects. The EIR will identify mitigation measures as necessary to avoid, minimize, or offset potential impacts.

Hazards and Hazardous Materials. Project construction would involve lubricants, coatings, and other materials that could be considered hazardous. However, following construction there would be no routine transport or use of hazardous materials associated with the project. Mitigation measures will be proposed as necessary to avoid, minimize, or offset potential impacts.

Hydrology and Water Quality. The proposed project could place construction equipment in and adjacent to the Santa Clara River and local creeks. This has the potential to release lubricants and fuels to the river and could cause erosion within the riverbed. Construction techniques have been identified to minimize the amount of equipment in rivers and creeks. The EIR will assess the potential impacts of the project on water quality, drainage patterns, and flood hazards and will propose mitigation measures as necessary to avoid, minimize, or offset potential impacts.

Noise. During construction the proposed project would generate noise and vibration. Construction activities that could be a significant source of noise and vibration include trucking operations and use of heavy construction equipment. The EIR will describe the local noise policies and ordinances and identify any sensitive receptors that could be affected by project construction. The EIR will identify mitigation measures as necessary to avoid, minimize, or offset potential impacts.

Transportation/Traffic. The proposed project would result in a temporary increase in trips related to construction vehicles, construction deliveries, and construction laborers. The proposed

project would require construction in local roadways, including temporary closure of traffic lanes. Construction would cause some driver inconvenience. Construction could occur in proximity to homes and schools and temporarily limit access to these areas. The EIR will evaluate the potential for additional construction vehicles, lane closures, or road closures to impact traffic and circulation and will identify mitigation measures as necessary to avoid, minimize, or offset potential impacts.

Cumulative Impacts. The EIR will evaluate potential cumulative impacts associated with the proposed project for all environmental topics when considered with other past, present, and reasonably foreseeable projects in the area. The EIR will identify planned projects in the area, including planned development and water supply and wastewater treatment projects.

**Public Comments:** The City of Ventura is soliciting the views of responsible and trustee agencies, as well as members of the public, including interested persons, organizations, and agencies, as to the scope and contents of the environmental information to be evaluated in the EIR. In accordance with CEQA, state and federal responsible and trustee agencies are specifically requested to review the project description provided with this NOP and provide their comments on the environmental issues related to the statutory responsibilities of the agency. The EIR will be used by the City Council when considering approval of the project and any related discretionary approvals. The EIR will also be used by other local, state, and federal agencies in considering participation in the project, as well as permits and approvals needed for project implementation.

All comments on the NOP are due no later than March 30, 2018. Please send your comments to the mailing address or email address shown below. Include a return address or email address and a contact name with your comments.

**City of Ventura**  
Betsy Cooper  
501 Poli Street, Room 120  
Ventura, CA 93002-0099  
bcooper@cityofventura.ca.gov

**Scoping Meeting:** A scoping meeting will be held to receive comments regarding the scope and content of the EIR. The scoping meeting will include a brief presentation providing an overview of the proposed State Water Interconnection Project and the CEQA process. After the presentation, oral comments will be accepted. Written comment forms will be supplied for those who wish to submit comments in writing at the scoping meeting. Written comments may also be submitted at any time prior to the NOP comment due date. The scoping meeting will be held as follows:

Date: March 15, 2018  
Time: 6:00 P.M.  
Location: Ventura City Hall, Council Chambers  
501 Poli Street  
Ventura, CA 93002

The draft EIR is scheduled for release in the Fall of 2018. Availability of the draft EIR for public review and comment will be announced and noticed in the local media.

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## Introduction and Project Description

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An EIR will be prepared to evaluate the environmental impacts associated with construction and operation of pipeline facilities that enable delivery of SWP water that has been wheeled through the MWD and Calleguas water systems to the City of Ventura. The connection would also facilitate direct or in-lieu delivery of SWP water to United and Casitas. In addition, the interconnection would allow the City to deliver water to Calleguas during an outage of its imported water supplies. The interconnection would be a pipeline used to transport water between Calleguas' and the City's distribution systems.

### Overview of the Proposed Project

The City of Ventura is 62 miles northwest of Los Angeles and 30 miles southeast of Santa Barbara along the California coastline (see Figure 1). As of 2015, the City's population was approximately 112,500 persons with about 32,000 service connections. The City's diverse water portfolio of surface water, groundwater, and recycled water is derived from six sources throughout the region. The City has an established right to imported water from the SWP but cannot currently take delivery due to a lack of infrastructure to deliver that water.

In 1963, the predecessor to the Ventura County Watershed Protection District contracted with the Department of Water Resources (DWR) for future delivery of up to 20,000 acre-feet per year (AFY) of SWP imported water to Ventura County. In 1970, administration of the Water Supply Contract for SWP water was assigned to the predecessor of Casitas Municipal Water District (Casitas). The City executed an agreement in 1970 with Casitas to secure 10,000 AFY of Table A<sup>2</sup> entitlement for the City. United also executed an agreement in 1970 with Casitas to secure 5,000 AFY of Table A entitlement for United, however, 1,850 AFY is leased to Port Hueneme Water Agency (PHWA) through the year 2035. Therefore, the EIR will only consider 3,150 AFY as United's entitlement. Casitas holds the entitlement to the remaining 5,000 AFY of the 20,000 AFY Water Supply Contract. The City, Casitas, and United, referred to as the Joint Agencies, pay annual contractual fees to DWR, which cover construction costs for SWP facilities and administration. The Water Supply Contract expires in 2035 but contains an extension option. Casitas, on behalf of the Joint Agencies, is working with DWR on an extension through approximately 2085 (Ventura Water 2016a).

The nearest entity to the City with a connection to SWP water is Calleguas. The Joint Agencies are working with Calleguas to develop an interconnection which would allow for delivery of the City's Table A entitlement. The interconnection could also allow Casitas (through in-lieu deliveries) and United to receive their SWP water via the Calleguas water system. These deliveries would be made under wheeling agreements with MWD and Calleguas. Additionally, the interconnection between the City and Calleguas would allow the City and Calleguas to deliver water to each other.

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<sup>2</sup> Each SWP contractor's SWP Water Supply Contract includes a "Table A," which lists the maximum annual amount of water an agency is entitled to. However, the amount of SWP water available each year, typically presented as a percentage of their Table A entitlement and called an "allocation," varies based primarily on the amount of precipitation in the SWP system tributary watersheds, water in storage, and regulatory restrictions on movement of water through the Sacramento-San Joaquin Delta.

The interconnection project consists of a connection to the Calleguas system, a pipeline of approximately 7 miles in length, a flow and pressure control and metering station along that pipeline, flow and pressure control and metering stations at United turnout(s) for water delivery, a connection to the City's water distribution system, and a blending/monitoring station within the City's system.

The City, in partnership with Casitas, United, and Calleguas, is finalizing the SWP Interconnection Alignment Study. The purpose of that study is to identify connection points to both the City and Calleguas systems and alignments between the various connection points, and to evaluate the advantages and disadvantages of the various alignments. That study has evaluated 20 different pipeline segments, including three alignments from the City of Ventura to cross the Santa Clara River, three different connection points with Calleguas, and routes through roadways and privately held agricultural land between the two connection points. The preferred alignment from that study is the proposed project described in this NOP.

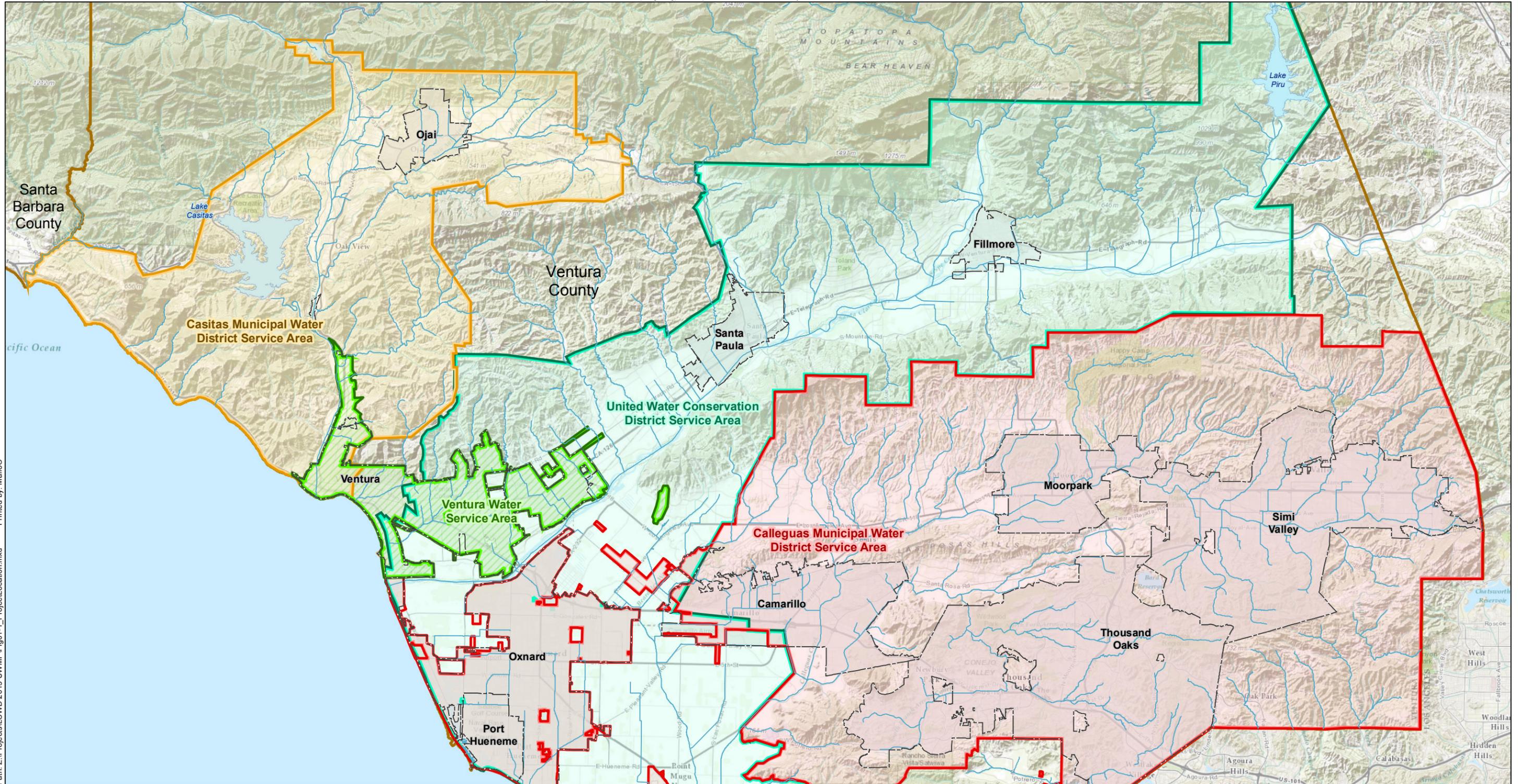
## Overview of the City of Ventura

The City encompasses an area of approximately 21 square miles, with the City's water service area stretching across 40 square miles (see Figure 1). Currently the City's water system serves an estimated population of 112,500 with approximately 32,000 service connections. This includes a small number of customers in unincorporated Ventura County receiving City water. Potable water is provided to residential, commercial, industrial, institutional, and irrigation customers. In addition, untreated water is provided to an industrial user and a few irrigation customers in the vicinity of an untreated water pipeline system in the North Ventura Avenue area. Recycled water is provided for irrigation of two golf courses, a City park, and landscape along the existing distribution alignment.

In 2016, the City's total water demand was 14,262 AFY, with a five-year average since 2012 of 16,236 AFY. Overall, per capita water demand has declined significantly since the middle of the last century due to effective water conservation practices, including plumbing code changes, improved water loss control, and an ongoing and active conservation program. As a result, per capita water use decreased from an average of 277 gallons between 1940-1970 to 166 gallons in 2010. Additional conservation efforts during the most recent drought resulted in even further declines to 117 gallons per capita per day (GPCD) in 2015. Nevertheless, water use is projected to increase to between 19,000 to 21,500 AFY by 2030 and potentially up to 22,700 AFY by 2040. The water use projections are based on the past 10-year average (2007-2016) baseline water demand plus the projected water demands from under construction and approved projects and using a growth rate of 0.55% to the Year 2040 (Ventura Water 2016b, Ventura Water 2017).

The City currently depends fully on local water supplies consisting of surface water from the Ventura River and Lake Casitas, groundwater from three local groundwater basins, and recycled water from the Ventura Water Reclamation Facility. These supplies have been sufficient to meet demands to date, but continued drought conditions, heightened environmental requirements, and water quality impairments, compounded by continued population growth, are threatening the City's ability to meet water demands and will require supplemental supplies.

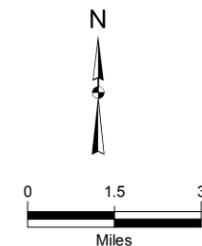
The City's ability to draw water from the Ventura River has been increasingly impacted in recent years. Drought conditions severely reduced supply availability from the Ventura River resulting in a maximum production of less than one third of normal year availability in 2015 (Ventura Water 2016a, Ventura Water 2016b). In addition, on-going instream flow studies by the California Department of Fish and Wildlife and the State Water Resources Control Board (SWRCB) could result in future limitations on production from this source. At the same time, Lake Casitas levels



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**Legend**

-  Calleguas Municipal Water District Service Area
-  Casitas Municipal Water District Service Area
-  United Water Conservation District Service Area
-  Ventura Water Service Area



**Kennedy/Jenks Consultants**  
Calleguas Municipal Water District

**Project Location**

1744210\*00  
January 2018

**Figure 1**

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dropped substantially during the drought, reaching a historic low of 35 percent of capacity (Coates 2017). With the declines in lake levels, lake supplies to the City have been limited and customer demand reductions have been required.

During dry weather conditions, the City generally depends more heavily on groundwater supplies, its largest water supply source, but those supplies cannot compensate for the reduced supplies during severe drought conditions and other losses of supplies. Furthermore, in April 2014, the Fox Canyon Groundwater Management Agency (FCGMA) approved Emergency Ordinance E that limits groundwater extraction within the FCGMA boundary (the City's Oxnard Plain Basin wells are located within the FCGMA boundary), suspends the use of credits, and prohibits the construction of any groundwater extraction facilities and/or the issuance of any groundwater extraction facilities permits. Prior to approval of Ordinance E, the City was relying on approximately 25,000 AF of conservation credits during water shortage years. Overall, groundwater pumping is limited by requirements to maintain long-term production within sustainable yields and allocations may become more restricted in the near future as a result of groundwater sustainability efforts arising from the 2014 Sustainable Groundwater Management Act. More importantly, groundwater quality impairments are also impacting the availability of this source. Water quality in the Mound Basin, one of the three groundwater basins utilized by the City, is highly mineralized and blending with a water supply lower in total dissolved solids (TDS) is required by the SWRCB Division of Drinking Water (DDW). Both active City wells in the Mound Basin have elevated TDS concentrations, measured as high as 1,500 milligrams per liter (mg/L) and 2,100 mg/L in 2015 (United 2017a). These levels exceed the DDW TDS water quality objective of 1,200 mg/L and therefore require blending to make the water suitable for potable use. The City's current (interim) approach is to blend the water from the Mound Basin with water from the Oxnard Plain prior to delivery to customers.

In order to continue to reliably meet the City's existing and future water demands, alternative supply sources are necessary. The City is currently preparing a draft EIR for the Ventura Water Supply Projects, which will be coordinated with this EIR and will examine several potential water supply projects at a programmatic level, and a potential potable reuse project, known as the VenturaWaterPure, at the project level of review. The proposed State Water Interconnection Project is not anticipated to provide any increased water supply volume for the City. However, the project would improve system reliability by providing access to a replacement supply source for the water supplies that have been reduced or have otherwise become less available. It also could meet a necessary requirement for the VenturaWaterPure Project, since the City may need to demonstrate an available backup supply in order to receive certain State approvals. Additionally, SWP water is a near-term option for providing the necessary water to dilute high TDS levels in groundwater to improve system water quality.

## Overview of Calleguas Municipal Water District

Calleguas is a wholesale water provider that delivers drinking water to 19 retail water purveyors within southeast Ventura County (Calleguas 2016). Under normal operating conditions, Calleguas meets its potable water demands exclusively through imported SWP water from MWD, delivering this water through 140 miles of large-diameter pipelines. There is currently no direct connection between Calleguas' water system and the City, Casitas, or United.

The proposed project is to develop an interconnection between the City and Calleguas, which would allow SWP water to be wheeled through the Calleguas system under normal operations. This means excess capacity in the Calleguas water transmission system would be used to deliver the water to a connection point with the City. The connection would thereby allow the City, Casitas (in-lieu delivery), and United to receive their SWP entitlements. Additionally, the interconnection

between the City and Calleguas would provide the infrastructure to move water into the Calleguas service area from the City of Ventura in the event of a supply outage.

It is important to note that, with the project, Calleguas would not be selling the SWP water, but merely wheeling it through their system for use by the City, Casitas, and United according to those agencies' existing SWP water entitlements. Under California state law, Calleguas is required to wheel water for others through its system as long as it has the capacity to do so, the wheeling does not degrade water quality, and it is fairly compensated for doing so. However, Calleguas has identified a need to improve its water supply reliability during outages of imported water supply. The interconnection provides Calleguas with an opportunity to receive water from the City under outage conditions, if necessary.

## Overview of United Water Conservation District

United is primarily a groundwater management agency and a wholesale purveyor whose operational area extends from Lake Piru Reservoir, along the Santa Clara River to the Oxnard Coastal Plain (see Figure 1). United works to maximize water resources of the lower Santa Clara River Valley and Oxnard Plain by utilizing surface flow of the Santa Clara River and its tributaries to replenish the groundwater basins. United operates the Oxnard-Hueneme (O-H) System, a public water system in the Oxnard Plain which serves other water agencies and mutual water companies on a wholesale basis, as well as a small number of retail customers. The SWP water would provide an emergency connection for the O-H system. During dry years water quality in the O-H system declines with elevated TDS and nitrate concentrations. The SWP water would be blended with water in the O-H system or used for groundwater recharge at the O-H wellfield to meet water quality objectives for TDS and nitrates. The central and eastern portions of the City are within United boundaries, partially served by groundwater underlying the Santa Clara River Valley.

United is a party to the contract between DWR and the Ventura County Watershed Protection District for SWP Table A water and has an entitlement of 3,150 AFY. However, United currently cannot receive deliveries of that water directly. United receives its SWP entitlement through Pyramid Lake which eventually flows through Piru Creek to Lake Piru and then down the Santa Clara River contributing to streamflow and groundwater recharge (UWCD 2017a). However, there are environmental restrictions on the timing and quantity of deliveries and significant water is lost to evaporation and consumptive use by vegetation during its conveyance via the Santa Clara River (UWCD 2016). The proposed project would allow United to take direct deliveries of SWP water supplies in order to enhance its groundwater replenishment operations and improve local supply availability.

United overlies all or portions of eight groundwater basins. United estimates that the average annual overdraft for the past 10 years in these basins is approximately 74,600 AF, meaning over the past 10 years average pumping has exceeded average recharge (United 2017a). Of particular concern is the long-term overdraft in the Oxnard Plain groundwater basin, which has resulted in landward migration of saline water (United 2017a). Preliminary modelling suggests it may be necessary to reduce groundwater pumping in the Oxnard Plain groundwater basin by as much as 39 percent (United 2017b). United's ability to replenish groundwater using surface water from the Santa Clara River has been drastically curtailed in recent years due to restrictions on the use of the Freeman Diversion. In July 2008, the National Marine Fisheries Service (NMFS) issued a final Biological Opinion (BO) that concluded that operations at the Freeman Diversion were likely to jeopardize the continued existence of Southern California Steelhead in the Santa Clara River. United is currently developing a multi-species habitat conservation plan and is in consultation with NMFS. The habitat conservation plan is likely to require additional bypass flows. The volume of

those bypass flows are unknown, but it is estimated that the bypass flow regime will significantly decrease diversions and groundwater replenishment.

## Overview of Casitas Municipal Water District

Casitas is the primary and/or backup water supply for nine water purveyors within its boundaries and direct supplier to agricultural, commercial, industrial, and residential customers. Altogether, Casitas has approximately 6,000 service connections with a population of approximately 71,000 within its service area. The Casitas service area includes the Ojai Valley, the western part of the City of Ventura, Oak View, Upper Ojai Valley, and the coastal area between the City of Ventura and Santa Barbara County (see Figure 1) (Casitas 2016). Casitas diverts and stores local rainfall runoff from the Ventura River watershed in Lake Casitas for subsequent filtration treatment and supply of potable water to customers in western Ventura County. In addition, Casitas relies on a small amount of groundwater from the Ojai and the Upper Ventura River groundwater basins to meet water demands.

Since 2005 Casitas' ability to divert Ventura River water to Lake Casitas has been curtailed by fishery protection requirements. A BO written by NMFS includes requirements to provide flow for the migration and passage of steelhead trout up and down the main stem of the Ventura River and past the Robles Diversion Facility during the steelhead migration season. Implementation of the flow release requirements of the BO started in 2005. There is concern by Casitas that future changes to the BO could require costly infrastructure and impact diversions to, and the water supply within, Lake Casitas (Casitas 2016).

During dry water years, resale and agricultural water demand for Casitas water supply increases dramatically as local groundwater sources become diminished or are no longer available. During dry periods, resale and agricultural customers may rely exclusively on water deliveries from Lake Casitas until groundwater supplies are replenished by rainfall events. The lake capacity is 237,761 AF, but lake levels dropped to a historic low of 35 percent of capacity in early 2017 due to on-going severe drought conditions. These dry weather conditions have required stringent demand management measures.

Casitas is the administrator for Ventura County's 20,000 AFY SWP Table A entitlement and has an entitlement of 5,000 AFY. However, as is the case for the City, Casitas is unable to receive delivery of its SWP entitlement due to a lack of necessary infrastructure. The proposed project would not directly deliver water to Lake Casitas; however, the City of Ventura could take Casitas' SWP water in-lieu of Lake Casitas water thereby leaving an equivalent amount of water in the lake. The proposed project would help maintain lake levels and improve Casitas' ability to meet its customer demands.

Casitas and the City may pursue a separate project at a future date to move water from the western portion of the City into Casitas' transmission system.

## Need for the Proposed Project

The City, Calleguas, United, and Casitas have the following needs:

- The City needs to provide a continued reliable water service to City water customers. This involves making up for losses in annual yield from existing supply sources (Lake Casitas, Ventura River, and groundwater), improving water quality, and providing an emergency/backup connection for Ventura Water's potential potable reuse project.

- Calleguas needs to improve its water supply reliability in the event of an outage of imported supplies.
- United needs to protect local supplies to ensure a long-term supply for its service area. This involves making up for losses in annual yield from existing supply sources (Santa Clara River diversions and groundwater), enhancing groundwater recharge options while reducing groundwater overdraft, improving basin groundwater quality, and providing an emergency connection for United's O-H Pipeline.
- Casitas needs to extend the ability of Lake Casitas to provide water during a long-term drought and to replace water that otherwise would have been diverted for storage at Lake Casitas but is now released downstream as required by the BO for the Robles Diversion Facility.

## Project Objectives

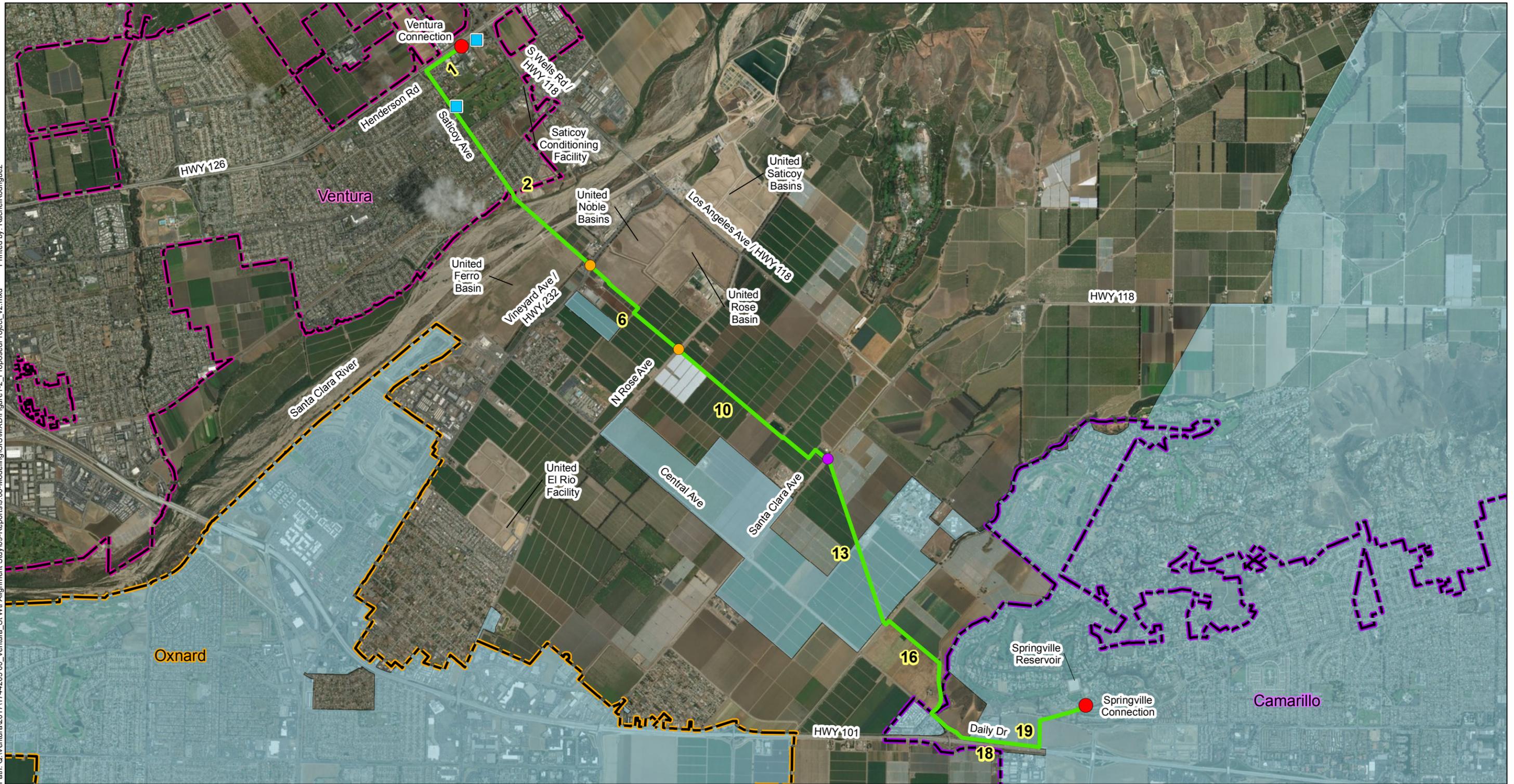
The project is designed to achieve the following objectives:

- provide a near-term water supply source for the City of Ventura to enhance supply reliability;
- improve City of Ventura water quality;
- provide a necessary backup supply for the City of Ventura's other potential, long-term water supply options;
- allow Casitas and United to receive their SWP entitlements; and
- enable the City of Ventura to deliver water to Calleguas during a supply outage.

## Project Location

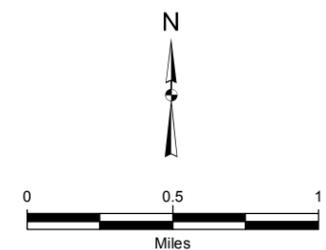
The preferred alignment would be located within Ventura County and extends southeast from the City of Ventura, through the community of El Rio in unincorporated Ventura County, and terminates in the City of Camarillo (see Figure 2). The City connection point is located along the existing 24-inch diameter pipeline on Henderson Road between South Saticoy Avenue and South Wells Road. There would be two physical connections to Calleguas, but in the same general vicinity (called the "Springville Connection"): one upstream of Springville Hydroelectric Generating Station (Springville Hydro) to deliver water to the City at a higher pressure and one downstream of Springville Hydro to receive deliveries from the City at a lower pressure. Both connection points are located near the intersection of Camino Tierra Santa and Via Zamora in the City of Camarillo and near Calleguas' Springville Reservoir.

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**Legend**

- Potential Blending/Monitoring Station
  - Potential United Turnout
  - Proposed Metering Facility
  - Point of Connection
  - Alternative Alignment A
- City Boundary**
- Camarillo
  - Oxnard
  - Ventura
- Calleguas Municipal Water District Service Area
  - 7 Pipeline Segment Designation



**Kennedy/Jenks Consultants**

City of Ventura  
State Water Interconnection Alignment Study

**Preferred Alignment**

K/J 1744205\*00  
January 2018  
**Figure 2**

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## Project Components

### Connection to City of Ventura Water System

The City connection point is located along the existing 24-inch diameter pipeline on Henderson Road between South Saticoy Avenue and South Wells Road. This connection point was selected based on pipeline capacity and hydraulics. This connection point is shown in Figure 2.

### Connection to Calleguas Municipal Water District

An analysis was prepared evaluating three potential connection points to the Calleguas system. The alternatives looked at flow range, water age, distance to the City connection point, and required pumping. A connection near Calleguas' Springville Reservoir was selected since this connection point requires no pumping and can provide sufficient flow capacity. The Springville Reservoir is located in the western portion of the City of Camarillo near the intersection of Camino Tierra Santa and Via Zamora (see Figure 2).

### Pipeline Segments

As described earlier, the City, in partnership with Casitas, United, and Calleguas, is finalizing an SWP Interconnection Alignment Study. The purpose of the study is to identify connection points to both the City and Calleguas systems and alignments between the various connection points. The study evaluated 20 different pipeline segments. This document uses the pipeline segment designations as defined in the SWP Interconnection Alignment Study.

Pipelines would be 36-inch diameter. For all segments, an average of 5 feet of soil cover over the top of pipe is assumed, except at those locations where trenchless construction is used and where necessary to avoid existing utilities. The individual alignment segments are described in the following and depicted in Figure 2:

**Segment 2.** Segment 2 originates at the Ventura connection point on Henderson Road, approximately 1,400 feet east of Saticoy Avenue, then proceeds west on Henderson Road until Saticoy Avenue. The pipeline alignment turns south on Saticoy Avenue and continues southeast until North Bank Drive. Horizontal directional drilling (HDD) is required to cross the Santa Clara River. The drilling machine would be staged in the County of Ventura yard or United property on the north riverbank and the receiving staging area would be located on United property on the south riverbank, beyond the levee. Once across the River, the pipeline alignment would continue in United property until reaching Highway 232. Total Segment 2 length is approximately 10,600 feet.

**Segment 6.** Segment 6 starts at the terminus of Segment 2 in Highway 232, and continues west in private property along an existing dirt road. The pipeline alignment segment makes a small jog about one half mile from Highway 232, turning southwest briefly, before proceeding southwest along a dirt road until Rose Avenue. A portion of Segment 6 could be located within property owned by United. Total Segment 6 length is approximately 4,500 feet.

**Segment 10.** Segment 10 continues southeast from the terminus of Segment 6, in Rose Avenue, along a privately-owned dirt access road for approximately 4,740 feet where the alignment has a slight jog to the northeast after passing an irrigation reservoir. After continuing another 1,250 feet

southeast, the alignment turns northeast for 380 feet before continuing southeast to Santa Clara Avenue. The total length of Segment 10 is approximately 6,800 feet.

**Segment 13.** Beginning at the termination of Segment 10, Segment 13 proceeds south along a VCWPD access road for Beardsley Wash. Trenchless construction or a pipe bridge would be required at the termination of Segment 13 across Beardsley Wash. The total length of Segment 13 is approximately 6,100 feet.

**Segment 16.** Segment 16 begins at the termination of Segment 13 and proceeds southeast along a privately-owned dirt road for approximately 2,300 feet. The alignment then continues south, paralleling a wash. The total length of Segment 16 is approximately 4,200 feet.

**Segment 18.** Segment 18 begins where Segment 16 terminates and continues southeast along Central Avenue. When approaching the Central Avenue offramp on Highway 101, the pipeline alignment segment diverts onto private land north of Central Avenue for roughly 800 feet. Segment 18 then exits private land to parallel Daily Drive for approximately 3,150 feet. The total length of Segment 18 is approximately 4,100 feet.

**Segment 19.** Segment 19 begins where Segment 18 ends and traverses north along a private dirt road, turns northeast on a paved utility access road, and crosses Camino Tierra Santa to the connection points upstream and downstream of Springville Hydro. The total length of Segment 19 is approximately 2,600 feet.

#### Turnouts to United Water Conservation District

The proposed project includes two potential future connections to United, one near Vineyard Avenue/Highway 232 and one near Rose Avenue (see Figure 2). At these future connection points the pipeline would be constructed with a flanged outlet and isolation valve. The future connection near Vineyard Avenue/Highway 232 would also be used during pipeline flushing operations (see "Pipeline Flushing").

#### Facilities and Appurtenances

The City is proposing a blending/monitoring station in the vicinity of the pipeline connection with Ventura Water. This would be an approximately 80- by 40-foot building on a concrete pad with underground pipelines extending to the Interconnection pipeline and a driveway to the nearest public roadway. A siting study for this facility has not yet been conducted. Possible locations may include on City owned property, such as Huntsinger Park, or on currently vacant land, such as the parcel located south of Henderson Road and east of Biedermann Place (see Figure 2).

A two-way meter facility would be built where the pipeline transitions between City and Calleguas ownership. This would be a below grade concrete vault approximately 10 feet wide by 20 feet long housing one or more flow meters, a transmitter, and control valves. An electrical service, control panel and related equipment will also be built.

The pipeline would have air vacuum/release valves at high points to allow release of any air trapped in the pipeline or introduce air into the pipeline during draining to prevent the pipeline from collapse. Typically, for this type of system, air vacuum/release valves would consist of a minimum 4-inch diameter air valve and associated piping protected by a valve can or cabinet anchored to an approximately 4-foot square concrete pad. The exact locations of air vacuum/release valves cannot be determined until design of the pipeline has been completed. For the purposes of the

environmental analysis, the calculations of ground disturbance, construction excavation, and equipment use will assume an air vacuum/release valve approximately every 1,250 feet along the pipeline.

Blow-offs are small pipeline connections to the bottom of the pipeline at low points in the alignment that allow water to be drained or pumped out of the pipeline. Blow-offs are manually operated with a hose and direct water to a proper disposal route or to a tanker truck. Blow-offs are accessed by a manhole. The exact locations of blow-offs cannot be determined until design of the pipeline has been completed. For the purposes of the environmental analysis, the calculations of ground disturbance, construction excavation, and equipment use will assume a blow-off approximately every 1,250 feet along the pipeline.

Isolation valves would be installed to allow portions of the pipelines to be isolated for maintenance or repair. Valves would also be placed at the connection points between the new pipeline and the existing water systems. Isolation valves are essentially in-line with the pipeline and would be installed in a vault. The above ground feature would be a manhole that is flush with the street pavement, or slightly above grade in unimproved areas, used to access the valve vault.

When a pipeline is located outside of a roadway, such as in an agricultural field or in a landscaped area, the location of the pipeline could be indicated with flat fiberglass marker posts approximately 4-feet high and 4-inches wide.

## Project Alternatives

The EIR will study project alternatives as required by CEQA, including the “No Project” alternative. Another possible pipeline alignment that would meet the basic project objectives which may avoid or lessen potential project impacts, has been identified, called Alternative Alignment B.

**Alternative Alignment B**, though similar to the proposed project, aligns much of the pipeline within public streets and rights-of-way. As shown in Figure 3, Alternative Alignment B includes Segments 2, 4, 7, 11, 14, 17, 18, and 19. Like the proposed project the alignment originates at Henderson Road (Segment 2), crosses Vineyard Avenue/Highway 232 and extends southwest along Highway 232. At Central Avenue, the alignment turns southeast and continues within the Central Avenue right-of-way. Bore and jack would be used to cross under a 96-inch storm drain in Segment 7, several channels, and intersections at Rose Avenue, Santa Clara Avenue, and Beardsley Road. The alignment departs from Central Avenue right-of-way after Ponderosa Drive and parallels the City of Oxnard water pipeline adjacent to their permanent easement. The alignment continues to parallel the water pipeline, east along Daily Drive, until connecting with Segment 19.

## Project Construction and Operation Activities

This section contains a description on construction and operation activities related to implementation of the project.

### Construction Activities

Most of the proposed pipeline would be placed underground and the ground surface restored to its pre-project condition. Construction of the proposed project would involve open cut construction and trenchless construction.

**Open Cut Construction.** Most of the pipeline would be installed using open cut construction/trenching. Construction would vary by segment, but it is expected that at any time approximately 1,000 to 1,500 feet of alignment would be in the construction zone, with about 300 feet in active construction and a buffer on each side. The buffer would be used for the traffic control (placement of cones, lane closure, signage) necessary to move vehicles safely around the construction area. The width of the construction zone would vary but is anticipated to be 25 to 50 feet. Construction would move along the alignment at about 80-160 feet a day, meaning any given location would not be in or adjacent to the construction zone for more than approximately 12 days. It has been assumed that three open cut segments would be built at a time. Staging areas would be located adjacent to or in the vicinity of the pipeline corridors.

**Trenchless Construction.** This method of construction would be used for crossing the Santa Clara River, railroad crossings, drainage channels, and certain intersections. There are two types of trenchless construction proposed for this project: HDD and bore and jack (B&J). Trenchless construction requires excavation of a launch pit and a receiving pit of various sizes, depending on the trenchless construction method, and then tunneling occurs between the two pits (and beneath the feature to be avoided). Launch and receiving pits for HDD are typically small in comparison to those for B&J construction and are around ten feet by ten feet wide and two to four feet deep. Pits for B&J construction can be much larger and for this pipeline would be roughly 14 feet wide, 30 to 40 feet long and, depending on the depth of the feature being tunneled under, could be 20 to 25 feet deep. Depending on the tunneling length and geologic complexity, the duration for tunneling activities would be up to 12 weeks where crossing the River and up to 6 weeks at the other locations. To the extent feasible, tunneling activities would be located to avoid impacts to roadways and sensitive habitat. Staging areas would be located adjacent to or in the vicinity of the launch and receiving pits.

### Construction Schedule

Construction is assumed to last approximately 30 months, which is based on an average pipeline installation rate of 120 feet per day. This includes time for utility relocation, design adjustments, submittals, pipe delivery, and start-up.

## Operations and Maintenance of New Facilities

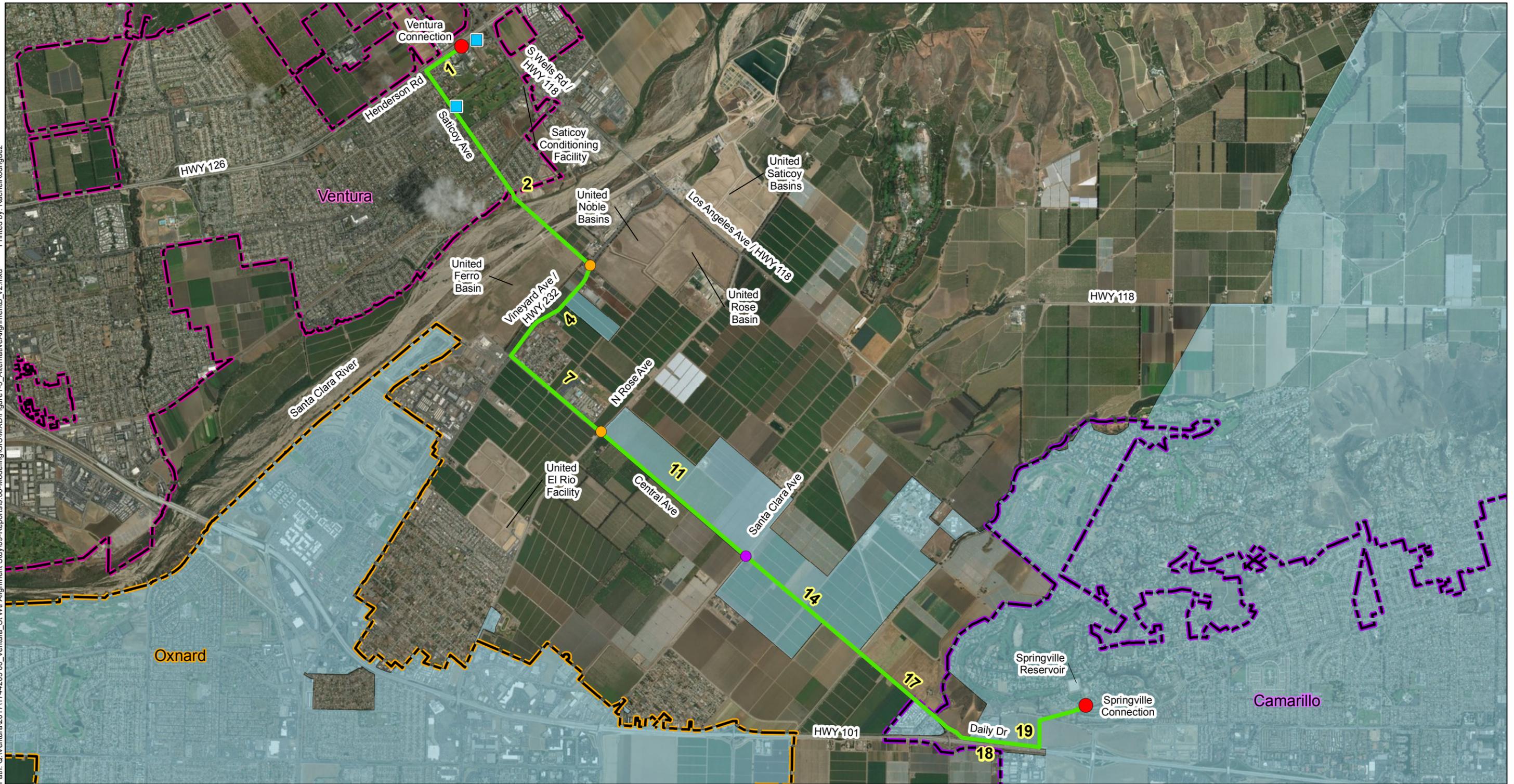
### Annual Water Deliveries

Based on a hydraulic analysis performed, the 36-inch diameter pipeline could deliver as much as 18,800 AFY, if this volume of water was available. However, the availability of water is limited.

DWR prepares a biennial report to assist SWP customers and local planners in assessing the near- and long-term availability of supplies from the SWP. DWR issued its most recent update, the 2015 DWR State Water Project Delivery Capability Report (DCR), in July 2015. In the 2015 update, DWR provides supply estimates for SWP customers to use in their planning efforts, including for use in their 2015 Urban Water Management Plans (UWMPs). The 2015 DCR includes DWR's estimates of SWP water supply availability under both current and future conditions.

DWR's estimates of SWP deliveries are based on a computer model that simulates monthly operations of the SWP and Central Valley Project systems. Key assumptions and inputs to the model include the facilities in the system, hydrologic inflows to the system, regulatory and

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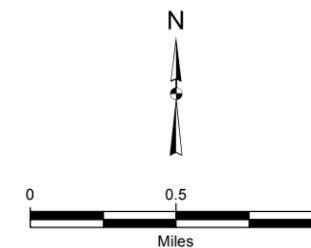


**Legend**

- Point of Connection
- Potential United Turnout
- Proposed Metering Facility
- Potential Blending/Monitoring Station
- Alternative Alignment B

- City Boundary**
- Camarillo
  - Oxnard
  - Ventura

- Calleguas Municipal Water District Service Area
- 7 Pipeline Segment Designation



**Kennedy/Jenks Consultants**

City of Ventura  
State Water Interconnection Alignment Study

**Alternative Alignment B**

K/J 1744205\*00  
January 2018

**Figure 3**

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operational constraints on system operations, and projected demands for SWP water. For example, the 2015 DCR uses the following assumptions to model current conditions: existing facilities, hydrologic inflows to the model based on 82 years of historical inflows (1922 through 2003), current regulatory and operational constraints, and demands at maximum Table A entitlements.

To evaluate SWP supply availability under future conditions, the 2015 DCR included four model studies. The first of the future-conditions studies, the Early Long Term (ELT) scenario, used all of the same model assumptions for current conditions, but incorporated changes expected to occur from climate change, specifically, a 2025 emission level and a 15-cm sea level rise. The other three future conditions include varying model assumptions related to the California WaterFix, such as changes to facilities and/or regulatory and operational constraints. It is unknown at this time whether or when the California WaterFix project will move forward.

The EIR will use the ELT scenario to estimate future SWP supply availability because it is based on existing facilities and regulatory constraints, with hydrology adjusted for the expected effects of climate change. This scenario is consistent with the studies DWR has used in its previous SWP DCR for supply availability under future conditions.

Assuming the ELT scenario, on average the SWP will deliver 61 percent of the Joint Agencies' Table A entitlements. In a very dry year or in the event of infrastructure failure it is possible there would be no SWP delivery.

Deliveries could also be impacted by capacity limitations in the MWD and Calleguas water transmission and treatment facilities because wheeling agreements will be for excess capacity not being used by MWD and Calleguas customers. More capacity will typically be available in the winter than in the summer.

### Pumping Requirements

With the project, flow from Calleguas to the City, and flow from the City to Calleguas, is expected to be by gravity. No pumping is required.

### Maintenance Activities

Regular maintenance activities would include exercising the isolation valves and the valves for the air vacuum/release valves and blowoffs. Routine maintenance of the control valves, flow meter(s), and System Control and Data Acquisition (SCADA) equipment at the meter facility would also be required. This would generate approximately four trips a year, although more trips might be necessary during start up, testing, or shut down activities.

### Pipeline Flushing

Flushing of the pipeline would be required upon startup of the interconnection after it has been out of service for more than a week or two for disposal of water due to degradation of water quality (reduction in disinfection residual) within the pipeline. During a flushing event, water could be delivered/discharged by gravity to the United connection at Vineyard Avenue for beneficial use, groundwater recharge, in United's existing Noble and/or Ferro Recharge Basins. The United connection would include a tee connection to the pipeline, isolation valves, a flow meter, a pressure reducing valve and the appropriate piping to convey the water to the basins.

## Purpose and Intended Uses of the EIR

The City is the lead agency under CEQA. United and Casitas will make decisions about participating in the project based on the EIR and are Responsible Agencies under CEQA. Calleguas will also make decisions on the proposed project and is also a Responsible Agency under CEQA. Other agencies will rely on information in the EIR to inform their decisions over the issuance of specific permits related to project construction or operation. State agencies, such as the SWRCB and Department of Transportation (Caltrans), will be involved in reviewing or approving the proposed project.

The EIR is an informational document for decision-makers and the public that identifies any significant environmental impacts of the project and describes feasible alternatives and mitigation measures to avoid or reduce those significant impacts. The EIR is also intended to support the permitting processes of all agencies whose discretionary approvals must be obtained for this project.

### Permits Potentially Required to Implement the Project

Permits required for the preferred alternative consist primarily of encroachment permits and one watercourse permit. Table 1 lists the permits that are anticipated to be necessary to implement the project. The information presented is preliminary and subject to change.

**Table 1**  
**Potentially Required Permits, Approvals, and Consultations**  
**Permits/Approvals Potentially Needed**  
**to Implement the Project**

<b>Agency</b>	<b>Permits/Approvals Potentially Needed to Implement the Project</b>
City of Ventura	Building Permit (Blending Station)
City of Ventura Public Works	Encroachment Permit (Segment 2)
County of Ventura	Road Encroachment Permit (Segment 2)
City of Camarillo Department of Public Works	Encroachment Permit (Segments 18 and 19)
Caltrans	Caltrans Standard Encroachment Permit (Segment 18)
California State Water Resources Control Board (SWRCB)	National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities
Southern California Regional Rail Authority (SCRRA)	Right-of-Way Encroachment Agreement (Segment 2)
Ventura County Watershed Protection District (VCWPD)	Watercourse Permit (Segments 2, 10, 13, 16)

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