

**FINAL WATER SUPPLY AND WATER
DEMAND TECHNICAL STUDY**

SATICOY AREA PLAN UPDATE

February 2015



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**FINAL WATER SUPPLY AND WATER DEMAND
TECHNICAL REPORT
SATICOY AREA PLAN UPDATE**

February 2015

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List of Frequently Used Acronyms and Abbreviations

AF	acre-feet
AFY	acre-feet per year
CADPH	California Department of Public Health
CEQA	California Environmental Quality Act
City	City of Ventura
CMWD	Casitas Municipal Water District (or Casitas)
County	County of Ventura
CVP	Central Valley Project
du/ac	dwelling units per acre
DWR	California Department of Water Resources
EIR	Environmental Impact Report
ETo	evapotranspiration
°F	Fahrenheit
FCGMA	Fox Canyon Groundwater Management Agency
GPA	General Plan Amendment
gpcd	gallons per capita per day
gpd/d	gallons per dwelling unit per day
gpkfs/d	gallons per 1000 square feet per day
gpm	gallons per minute
in	inch
MAF	million acre feet
MGD	million gallons per day
NCZO	Non Coastal Zoning Ordinance
Project	Saticoy Area Plan Update Project
SB	Senate Bill
sf	square feet
SR	State Route
SSD	Saticoy Sanitary District
SWP	State Water Project (State of CA)
SWRCB	State Water Resources Control Board
TDS	total dissolved solids
USEPA	United States Environmental Protection Agency
UWCD	United Water Conservation District (or District)
UWMP	Urban Water Management Plan
VWRF	Ventura Water Reclamation Facility
WRCC	Western Regional Climate Center.

SECTION 1: INTRODUCTION

1.1 Purpose of Technical Report

Milner-Villa Consulting was contracted to prepare a Water Supply and Water Demand Technical Study (Study). This Study will be incorporated into the Environmental Impact Report for the Saticoy Area Plan Update being developed by the Ventura County Resource Management Agency Planning Division. The purpose of this Study is to summarize the water supplies and water demands for the Saticoy Area Plan Update. The Saticoy Area Plan Update will also be referred to as the “Proposed Project”.

1.2 Proposed Project

1.2.1 Project Location

The project area is located in southern California, within an unincorporated area of Ventura County adjacent to the City of Ventura (City). The Project Area is outside the City limits but within its Sphere of Influence. See **Figure 1-1**, Project Vicinity, for adjacent areas. Saticoy is a small, unincorporated community covering approximately 238 acres. As illustrated in **Figure 1-2**, Project Location, the area is generally bounded on the north by the City, on the east by the Franklin Barranca and adjacent agricultural land, on the south by the Santa Clara River, and on the west by the Brown Barranca. Two major state highways are in close proximity to Saticoy: State Route 118 (SR 118) runs north/south bisecting the Saticoy community and Highway 126 runs east/west approximately one-half mile north from the center of Saticoy. In addition, the Santa Paula Branch line of the Union Pacific Railroad (railroad) runs east/west, bisecting the community very close to the town center. The entire Saticoy community is within the sphere of influence of the City.

1.2.2 Project Description


The Proposed Project is a comprehensive Update of the Saticoy Area Plan. Proposed amendments include the following:

- Revised Goals, Policies and Programs;
- General Plan Land Use Map;
- Zoning Map, including revised zoning classifications;
- Vehicular and non-vehicular mobility maps, including revised road classifications;
- A New Development Code and Design Guidelines for that portion of Saticoy known as Old Town Saticoy;
- A Technical Appendix that describes existing conditions (base year 2014); and
- Revised format, text, and graphics.

Collectively, these revisions are referred to as the Proposed Project (PL14-0066). See **Figure 1-2** for Project Location. The project will require a General Plan Amendment and limited text amendments to the Non-Coastal Zoning Ordinance (NCZO). The time horizon for the Proposed Project is 20 years, which includes 2015 to 2035.



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 Additional data from Ventura County RMA, 2014.

 Project Boundary



**FIGURE 1-1
 PROJECT VICINITY**



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FIGURE 1-2
PROJECT LOCATION

1.2.3 Project Objectives

The primary objective of the Proposed Project is the economic revitalization of the Saticoy community. Additional project-level objectives include the development of a safe, sustainable, and visually pleasant community. Key features of the project that are designed to help meet these project objectives include improved housing opportunities, infrastructure improvements, and revisions to the land use and circulation patterns within Saticoy. The proposed Area Plan changes will affect future land use patterns and the physical character of future private/public development over the next twenty-year period. Proposed Area Plan modifications are based on a combination of planning principles developed by Planning Division staff, consultants and land use experts, community or stakeholder-defined goals/objectives, and objectives consistent with grant guidelines established by the State for the Compass Blueprint Grant and Sustainable Communities Grant, which were used to fund a portion of the project.

1.3 Area Characteristics

The Project area is located in Ventura County. Rugged mountainous terrain covers most of northern Ventura County while broader alluvial valleys and lower rolling topography occur in the southern portions of the County. Mountainous areas to the north rise to elevations in excess of 6,000 feet above mean sea level. Ground surface elevations vary from about sea level to approximately 250 feet above mean sea level in the local foothills. The Santa Clara River watershed runs 84 miles from the Pacifico Mountain to the estuary. The Santa Clara River drains an area of 1,634 square miles including most of northern Ventura County (60 percent of watershed) and northwestern Los Angeles County (40 percent of watershed). Nearly 90 percent of this drainage area is characterized by rugged topography, while the remainder consists of flatter valley floor and coastal plain topography.

1.4 Ventura Water System

The City provides potable water service to the Saticoy area. In 1923, the City acquired the water system, along with its water rights from the Ventura River, from the Southern California Edison Company and assumed the responsibility of providing water to City residents. In years following, the City developed additional sources of surface and groundwater, including wells and improvements to the surface water diversion from the Ventura River. Also, since 1960, the City has purchased surface water from Casitas Municipal Water District to supplement its water supplies. As development occurs on the east side of the City, additional groundwater facilities have been completed to meet increasing demands. (Ventura, 2011)

Currently, the City's water system serves approximately 31,650 water service connections, which includes the population of the City plus some additional areas outside the City boundaries. The western portion of the City is within the Casitas Municipal Water District service area. The mid and eastern portion of the City is within United Water Conservation District's boundaries. Water service is provided to all residential, commercial, industrial and irrigation customers; including fire protection users. (Ventura, 2011)

The City water system is a complex system of 16 pressure zones, 13 wells, 21 booster stations, approximately 380 miles of pipelines ranging from 4-inches to 36-inches in diameter, and a total storage capacity of approximately 52 million gallons (mg) in 32 tanks and reservoirs. The system delivers water from sea level to a maximum elevation of over 1,000 feet. The City operates three purification facilities, including one membrane filtration treatment plant for surface water sources on the west side of the City, and two iron/manganese removal treatment plants for groundwater sources on the east side. **Section 2** provides additional details related to City's water supplies. The City also maintains and operates the Ventura Water Reclamation Facility. See **Section 3** for further description of the Reclamation Facility. (Ventura, 2011)

1.5 Local Climate

The Project area is located adjacent to the City of Ventura. Ventura has a climate that is similar to a Mediterranean coastal city. That is, the winters are cool and wet, and the summers are mild and dry. Temperatures only rarely fall below freezing in winter. The average daily maximum temperature range is mid-60s to low 70s and it is uncommon for the temperature to drop below freezing. The area has an average rainfall of approximately 14.7 inches. **Table 1-1** displays the average annual climate information by month.

TABLE 1-1
MONTHLY CLIMATE DATA FOR RAINFALL and TEMPERATURE

Parameter	Jan	Feb	Mar	Apr	May	Jun
Average Rainfall (in) (a)	3.05	3.26	2.55	0.98	0.23	0.04
Average Max Temperature (°F) (a)	66.9	65.3	68.2	68.0	67.7	70.9

Parameter	Jul	Aug	Sept	Oct	Nov	Dec	Annual
Average Rainfall (in) (a)	0.01	0.02	0.22	0.49	1.46	2.37	14.67
Average Max Temperature (°F) (a)	73.0	74.3	74.3	73.7	71.2	69.9	70.3

Notes:

(a) Temperature and rainfall data obtained from Western Region Climate Center, Ventura Station No. 046285, 2014.

Additional details regarding potential impacts of climate change on water demands and water resources are provided in **Sections 2 and 3**.

1.6 Report Organization

The remainder of this Water Supply and Water Demand Technical Study is organized as follows:

- Section 2 – Water Supply
- Section 3 – Water Demand
- Section 4 – Summary and Conclusions.

SECTION 2: WATER SUPPLY

2.1 Introduction

As noted in **Section 1.2**, the Proposed Project is located within the jurisdiction of the County of Ventura and adjacent to the eastern boundary of the City of Ventura. The primary source of potable water for the Project Area is provided by the Ventura Water (City of Ventura). **Figure 2-1** provides a graphical summary of the City service area. The City's existing water service area includes all areas within the City limits, as well as portions of unincorporated Ventura County that meet the City's policy for water connections outside City limits.

Originally, water was provided to the Project Area by the Saticoy Water Company, which was purchased by the City in the late 1960's. **Appendix A** provides a copy of the City-Saticoy Water Company "Agreement for Sale of Saticoy Water Company Water System." As part of that purchase, the City agreed to continue service to all customers served by the Saticoy Water Company. Currently, the Project Area is outside the City limits but within the City's Sphere of Influence. **Appendix B** provides a copy of the City Policy (Municipal Code 22.110.055) for water service to "Water Connections Outside City Limits." City Municipal Code 22.110.055 includes a provision (subsection A.2.d) that restricts meter sizes to a maximum of three-fourths inch (3/4 in) for customers outside City limits. This provision significantly restricts new development within the Project Area.

The City's potable water supply is derived from local groundwater basins, Lake Casitas, and sub-surface water from the Ventura River. The City also has a 10,000 acre-foot per year allocation from the California State Water Project. To date the City has not received any of this water because there are no facilities to get the water to the City. There are presently six local water sources that provide water within the City including the following:

- Mound Groundwater Basin
- Oxnard Plain Groundwater Basin
- Santa Paula Groundwater Basin
- Casitas Municipal Water District
- Ventura River Foster Park Area
 - * Surface Water Intake
 - * Upper Ventura River Groundwater Basin/Subsurface Intake and Wells
- Recycled (and/or nonpotable) water.

Each of these sources of supply are summarized below.

The amount and distribution of the City's available water supply is constantly changing, depending upon environmental and legal constraints. The City's current available water supply is 19,535 to 20,935 AFY. See **Table 2-1** for details related to the City's current and projected water supplies. Drought impacts and regulatory restrictions could reduce the 2015 available water supply to an annual average of 14,824 to 16,824 AFY (amount is less than the projected water demand). (Ventura, 2014a) This water supply and water demand projection, and the various unknowns associated with the water supplies, may present significant challenges for the City moving forward in the ability to allocate water supply to development projects that generate additional water demands.



FIGURE 2-1
VENTURA WATER SERVICE AREA

**TABLE 2-1
SUMMARY OF CURRENT AND PROJECTED WATER SUPPLIES (AF)**

Water Supply Sources (a,b)	2015 (Drought)	2015	2020	2025
Mound Groundwater Basin	4,000	4,000	4,000	4,000
Oxnard Plain Groundwater Basin	3,918	3,918	3,799	3,799
Santa Paula Groundwater Basin (original)	1,600	1,606-3,006	1,606-3,006	1,606-3,006
Santa Paula Groundwater Basin (new)	5.8	5.8	5.8	5.8
Casitas Municipal Water District	4,600	5,111	5,379	5,379
Ventura River	0-2,000	4,200	4,200-6,700	4,200-6,700
Recycled Water	700	700	700	1,400
Total Estimated Supplies	14,824-16,824	19,535-20,935	19,684-23,584	20,384-24,284

Notes:

- a) Source: Ventura, 2014a.
- b) Available supplies based on current information; supplies may be increased or decreased depending on demand and drought conditions.

2.2 Mound Groundwater Basin

The Mound Groundwater Basin (Mound Basin) is generally located under the City of Ventura (see **Figure 2-2**, Groundwater Basins of Ventura County). The Mound Basin underlies the northern part of the Ventura coastal plain and is bounded on the north by the Santa Ynez and Topa Mountains, on the south by the Oak Ridge and Saticoy faults, the northeast by the Santa Paula Subbasin, and the west by the Pacific Ocean. The City of Ventura has historically extracted water from the Mound Basin for overlying beneficial uses including agricultural, municipal, and industrial demands. Water from the City's Golf Course Wells, Mound Wells, and Saticoy Wells may be mixed and distributed to the Saticoy area depending on many factors including wells in operation, date of year, water quality, and water demand, etc.

Historical use has been documented to temporarily exceed the yield of the Mound Basin and result in water levels that have fallen below sea level and created a threat of seawater intrusion. To abate this threat the City abandoned its historical coastal well facilities and located groundwater extraction near the center of the Mound Basin. A report by Fugro West, Inc. (1997) compiled as part of a 1996 study of the Mound Basin indicated that historical data supports a basin yield of at least 8,000 AFY during drought conditions as long as pumpage is reduced during wet years to allow water levels to recover. (Ventura, 2014a)

Average annual production from the Mound Basin during the period 1983 to 1996 was approximately 5,000 AFY (Fugro, 1997). While the resulting water levels in the Mound Basin over that time period reportedly ranged from significantly below sea level to a sufficient elevation about sea level to control seawater intrusion, the basin water level trend did not indicate an average production significantly above 5,000 AFY could be sustained without creating adverse conditions. (Ventura, 2014a)

Currently, two Ventura wells withdraw water from the Mound Basin; Victoria Well No. 2, which was installed in 1995, and Mound Well No. 1, which began production in April 2003. (Ventura, 2014a) Victoria Well No. 1, which was installed in 1982, is considered an inactive well at this time due to maintenance and water quality issues and is scheduled for destruction.

Historical agricultural and private well uses within the Mound Basin have typically extracted about 2,000 AFY while the City's average annual extraction for the last ten years has been approximately 4,000 AFY. Therefore the City's current reliable water supply from the Mound Basin is 4,000 AFY. (Ventura, 2014a) **Table 2-1** provides a summary of current and projected water supplies

2.3 Oxnard Plain Groundwater Basin

2.3.1 Golf Course Wells

Wells near the Buenaventura Golf Course have extracted water from the Oxnard Plain Groundwater Basin (Oxnard Basin) since 1961. (Ventura, 2014a) The basin is bounded on the north by the Oak Ridge fault, the south by the Santa Monica Mountains, the east by the Pleasant Valley and Las Posas Valley Basins, and the west by the Pacific Ocean. (Ventura, 2011) Figure 2-2 provides a graphical summary of the groundwater basins within the County. Currently, two wells, Golf Course Wells No. 5 and 6, produce potable water for the City's system and a third well (Golf Course Well No. 3) is out of service for major rehabilitation. This third well could be used as an emergency source and will only return to service during a drought, following the replacement of wellhead, pump, electrical, and raw water connection. These wells pump from the Fox Canyon Aquifer of the Oxnard Basin. Water from the City's Golf Course Wells, Mound Wells, and Saticoy Wells may be mixed and distributed to the Saticoy area depending on many factors including wells in operation, date of year, water quality, and water demand, etc.

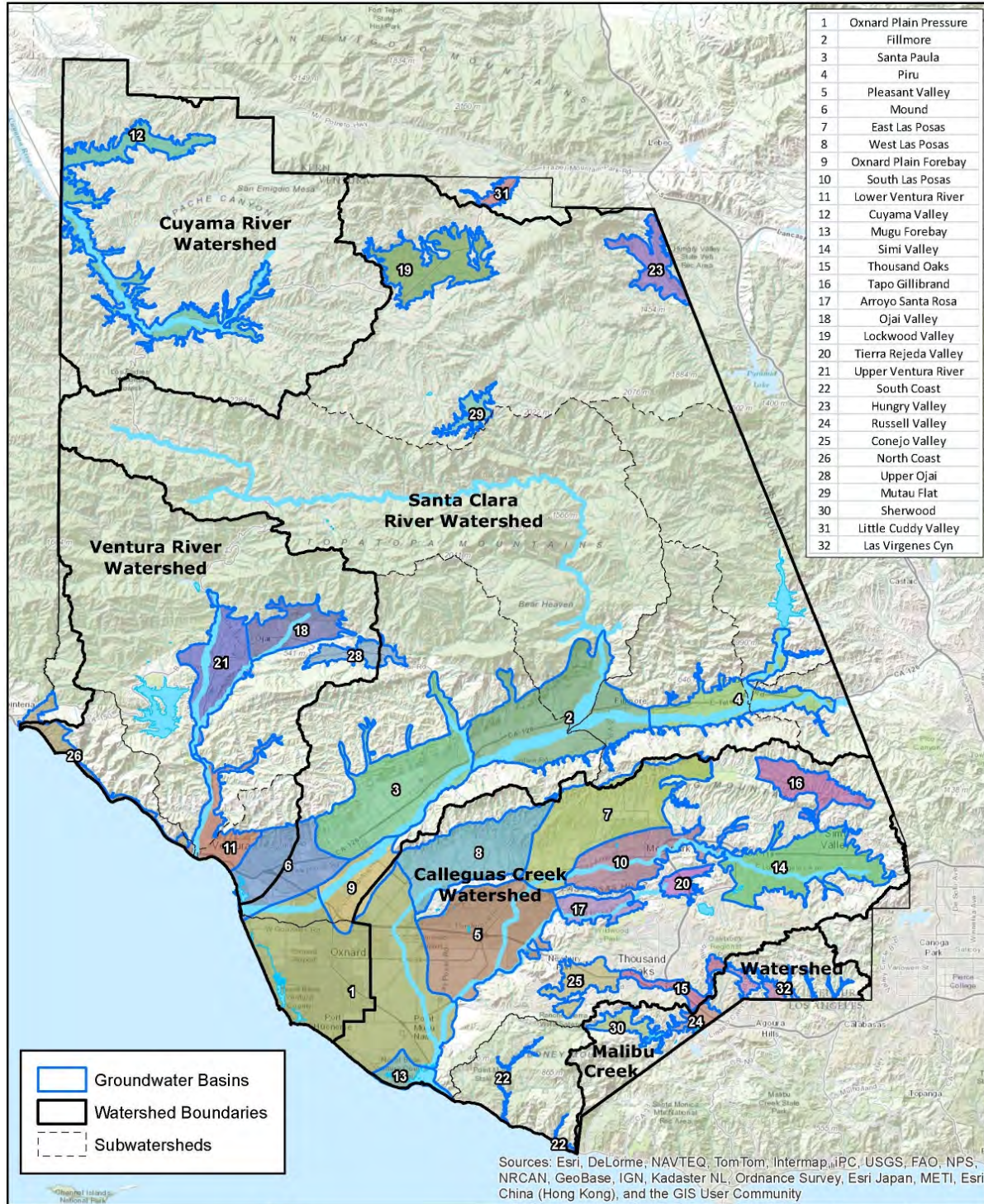
The City's historical allocation was set by the FCGMA at 5,472 AFY, which was the average extraction from the Golf Course Wells for the base period 1985 to 1989. (Ventura, 2014a) Beginning in 1992, the FCGMA approved an Ordinance which reduced maximum extraction allocations by five percent (5%) to 5,198 AFY, in 1995 it was reduced to 4,925 AFY, in 2000 it was reduced to 4,651 AFY, and further reduced in 2010 to the current allocation of 4,100 AFY.

Conjunctive use strategies and operational practices have allowed the City to accrue 30,249 AF of FCGMA groundwater credits as of the beginning of calendar year 2010. (Ventura, 2011) These practices currently make it possible for the City to use its groundwater credits to supplement its supply in the event of a drought or operational/production/treatment constraints on other supply sources. However, the FCGMA recently passed Emergency Ordinance E which affects several aspects of local groundwater use including use of groundwater credits. Emergency Ordinance E will be further explained in **Section 2.3.2**.

2.3.2 Fox Canyon Groundwater Management Agency

The Fox Canyon Groundwater Management Agency (FCGMA) was created at the direction of the State Water Resources Control Board to address ongoing overdraft and seawater intrusion into the Oxnard Plain Basin. The purpose of the FCGMA is to manage the region's groundwater supply by protecting the quantity and quality of local groundwater resources and by balancing the supply and demand for groundwater resources.

The FCGMA has jurisdiction over groundwater pumping for all of the land which overlies the Fox Canyon Aquifer. This encompasses approximately 185 square miles and includes the Oxnard Forebay and the Oxnard Plain Basins. While the basins of the FCGMA are not adjudicated basins, the basins are fully managed by FCGMA. The most significant ordinance of the FCGMA is Ordinance No. 8, as amended. Ordinance 8 provides for baseline allocations, historical allocations, transfers, schedule of historical pumping allocation reductions, irrigation efficiency, and penalties for exceeding pumping allocations. As previously noted, this Ordinance required reductions in groundwater extractions of 25 percent over the period 1990 to 2010 within the FCGMA boundary, with the objective of reducing extractions to the basin "safe yield".





 Ventura County
 Resource Management Agency
 Information Systems Department
 Map created on 04/07/2014

FIGURE 2-2
GROUNDWATER BASINS OF VENTURA COUNTY

The baseline pumping allocations of one acre-foot per acre are credited to the pumper for lands not irrigated during 1985 to 1989 base period. Historical extractions were established during the 5-year period from 1985 to 1989. A series of 5 percent reductions to baseline pumping allocations were implemented over the period 1990 to 2010. Ordinance No. 7, adopted in June 1991, which later was amended into Ordinance No. 5.1 and now is contained in Ordinance 8, as amended, was established to prevent the waste of water by agricultural users. An agricultural water well operator is required to be 80 percent efficient when considering evapotranspiration (ET_o) and crop factors when an operator lacks enough historical allocation for the current crop being grown to avoid penalties.

Emergency Ordinance E, adopted April 2014, requires additional pumping restrictions within the FCGMA boundary. These reductions include an additional 10 percent reduction in pumping on July 1, 2014, an additional 5 percent on January 1, 2015, and an additional 5 percent on July 1, 2015. In addition, Emergency Ordinance E states the following, "...conservation credits shall not be obtained and may not be used to avoid paying surcharges for extractions while this emergency ordinance is in effect." Emergency Ordinance E may impact the City's extraction of local groundwater and management of groundwater conservation credits. Therefore the City's current reliable water supply from the Oxnard Plain Basin is 3,918 AFY with further reduction to 3,799 AFY by 2020. **Table 2-1** provides a summary of current and projected City water supplies.

2.4 Santa Paula Groundwater Basin

The City owns and operates two wells within the Santa Paula Groundwater Basin. The older of the two, Saticoy Well No. 2, is located at the City's Saticoy Water Conditioning Facility. **Figure 2-2** provides a graphical summary of the groundwater basins within the County. Well No. 2 has a sustainable production capacity of 1,600 AFY. (Ventura, 2014a) The City also owns and operates a second well, Saticoy Well No. 3, located in Saticoy on Aster Street. Saticoy Well No. 3, which should be operational by February 2015, is anticipated to have a production capacity of approximately 3,000 AFY. Water from the City's Golf Course Wells, Mound Wells, and Saticoy Wells may be mixed and distributed to the Saticoy area depending on many factors including wells in operation, date of year, water quality, and water demand, etc.

In March 1996, the City ended a five-year stalemate over the use of the Santa Paula Basin. Under a court stipulated judgment, the United Water Conservation District (United), the Santa Paula Basin Pumpers Association (an association of ranchers and businesses), and the City all have an interest in the Santa Paula Basin. The City can pump on average 3,000 AFY from the Santa Paula Basin. The City is not limited to this allocation in any single year, but may produce seven times its average annual allocation (21,000 AF) over any running seven-year period. In addition, the City may pump an additional 3,000 AFY in case of an emergency resulting from a long-term drought situation.

If the court finds that the safe yield of the Santa Paula Basin is less than the total pumping allocations, then the City may have reductions in pumping allocations. (Ventura, 2014a) Stage 2 reduces the City's pumping to 1,141 AFY, Stage 3 reduces the City's pumping allocations to 641 AFY, Stage 4 reduces the City's pumping allocations to 481 AFY, and Stage 5 reduces the City's allocations to zero.

The City's Comprehensive Water Resources Report (City, 2014) indicates that the City's current reliable water supply from the Santa Paula Basin is 1,600 AFY (based on production from Saticoy Well No. 2). However, the addition of Saticoy Well No. 3 should provide the City with a reliable water supply for the Saticoy area of approximately 1,600 to 3,000 AFY under normal water supply conditions. **Table 2-1** provides a summary of current and projected City water supplies including from the Santa Paula Basin.

2.5 Surface Water from Casitas Municipal Water District

Casitas Municipal Water District supplies water to agricultural and urban users in western Ventura County including the Ojai Valley, City of Ventura, and the coastal area between the City and Santa Barbara County. The City purchases treated surface water from Casitas to provide water supply to a portion of the City. In the western portion of the City approximately 30 percent of the City's water accounts are located within the Casitas service area. (Ventura, 2014a) Storm water runoff from local watersheds is stored in Lake Casitas, located approximately 10 miles northwest of the City, then treated and delivered to customers by Casitas. Casitas supplies potable water to agricultural, domestic, municipal, and industrial users within its service area. Use of Casitas water is restricted to areas within its boundaries. In general, water from Lake Casitas is not distributed to the Saticoy area.

The 'safe yield' of Lake Casitas is defined to be the amount of water that can be removed from the lake each year without excessive risk that the lake will become dry. The safe yield of Lake Casitas is currently estimated to be 21,920 acre-feet per year (AFY), based on the critical historical dry period from 1944 to 1965. (Ventura, 2014a) Studies by Casitas' engineering department have shown that this period represents the most critical dry spell for the lake's watershed of all the years for which historical data is available.

To maintain the future operation of Lake Casitas at safe yield, Casitas established an allocation program for its customers in 1992. (Ventura, 2014a) The City's allocation can be as high as the in-District demand for Stage I (wet or average year or 8,000 AFY), or reduced to 7,090 AFY for Stage 2 (dry conditions). This amount is incrementally reduced during Stages 3 and 4 dry weather conditions and results in 4,960 AFY for Stage 5 (extremely dry conditions). Stage 2 is initiated when Lake Casitas storage drops below 95,000 AF and Stage 5 is initiated when levels drop below 65,000 AF. The lower allocation remains in effect until the storage is recovered to 90,000 AF. A possible future impact to the multistage allocation system may be the operation of the fish ladder at the Robles Diversion. Casitas is currently reviewing its allocation program and this may limit the amount of water available to the City.

In July 1995, the City signed the present operating agreement with Casitas establishing the City's minimum annual purchase at 6,000 AFY, which is subject to the allocation program described above during drought periods. (Ventura, 2014a) However, due to recent demand reductions within the Casitas boundary City customers are currently using approximately 5,000 AFY. The City is presently renegotiating the water supply agreement with Casitas. While additional supply (up to 8,000 AFY) may be available to the City in future years, the present annual supply used within the Casitas district boundary of the City service system is approximately 5,000 AFY. Therefore the City's current reliable water supply from Casitas is 5,000 AFY. **Table 2-1** provides a summary of current and projected City water supplies including from Casitas.

2.6 Ventura River Surface Water Intake and Upper Ventura River Groundwater Basin/Subsurface Intake and Wells

Surface water from the Ventura River is collected via surface diversion, subsurface collector, and shallow wells and delivered to the Avenue Treatment Plant through the City's Foster Park facilities. (Ventura, 2014a) Production from this source is a function of several factors including diversion capacity, local hydrology, environmental impacts, and the storage capacity of the Ventura River alluvium and upstream diversions. In general, water from the City's Ventura River facilities is not distributed to the Saticoy area.

The Ventura River water source is dependent upon local hydrology. Currently, the surface intake structure at Foster Park is unused due to the natural channeling of the active river channel bypassing the structure. (Ventura, 2014a) Each year the flows can change the position of the active river channel in relation to the intake structure. According to a model of the Ventura River developed in 1984 and modified in 1992, the Upper Ventura River Basin fills after one or more years of above average rainfall. Once full, it takes three successive years of drought, with below average rainfall to deplete the river basin subsurface storage and

cause river water production to drop until the drought ends. More recent ongoing studies are looking at the interaction between groundwater diversion and surface water flow in the Foster Park reach.

The Foster Park facilities produce groundwater throughout the year. However, due to storm flows, the wells are subject to inundation and erosion. The early 2005 winter storms destroyed Nye Well 1A and damaged Nye Wells 2, 7, and 8. (Ventura, 2014a) The pipeline between Nye Wells 7 and 8 along the west bank of the river and the pipeline that crosses the river from Nye Well 8 to the intake pipeline for the Avenue Treatment Plant were also damaged during the storms. Nye Wells 7 and 8 were repaired in late 2006, the pipeline across the river was repaired in late 2007 and the pipeline repair between Nye Wells 7 and 8 was completed in early 2009. To date, Nye Well 2 has not been repaired.

With input from resource agencies and consultants in 2008, the City began conducting studies of the Ventura River flow conditions and is presently operating the Foster Park facilities in an environmentally sustainable manner. (Ventura, 2014a) Presently, the City operations staff has voluntarily adopted a well production schedule that limits its pumping based on annual rainfall conditions. The City intends to work with experts to ascertain a pumping regime that will balance production demands with environmental concerns and is presently studying the relationship between groundwater production and surface flows. (Ventura, 2014a)

Estimations of approximately 6,000 AFY on average from Foster Park facilities is available based on this operational scenario and is comparable to the 50-year average historical City production records between 1960 and 2009. (Ventura, 2014a) However, current operational constraints allow a diversion efficiency of up to 70 percent (average 4,200 AFY) to be obtained under the City's operations schedule, which can be considered reliable for planning purposes and is roughly equal to the annual average for the last 10 years. Therefore the City's current reliable water supply from the Ventura River / Foster Park facilities is 4,200 AFY. **Table 2-1** provides a summary of current and projected City water supplies including from the Ventura River. However, this supply may be drastically reduced by proposed regulatory and environmental constraints such as groundwater regulations, reductions for endangered species, and cutbacks by Casitas.

2.7 Recycled Water

The City collects and treats wastewater at its Ventura Water Reclamation Facility (VWRF). The VWRF is a tertiary treatment facility with primary clarification, equalization basins, activated sludge process designed for biological nutrient removal, secondary clarification, tertiary filtration, chlorination and dechlorination. (Ventura, 2011) The VWRF treats domestic, commercial, and industrial wastewater flows from the City. The reclamation facility has a current capacity of 12 million gallons per day (MGD), while average daily flows to VWRF total approximately 9 MGD. A portion of the effluent is pumped to recycled water customers and the remaining effluent is discharged to the Santa Clara River Estuary (Estuary).

The recycled water produced from the VWRF is used for general irrigation of two City golf courses, a City park, and landscape irrigation areas located along the existing distribution alignment. The City's current average annual recycled water demand is approximately 700 AFY. (Ventura, 2014a) **Table 2-1** provides a summary of current and projected City water supplies, including from recycled water.

2.8 Water Conservation

The City recognizes that water use efficiency is an integral component of a responsible water strategy and is committed to providing education, tools, and incentives to help its customers reduce the amount of water they use. (Ventura, 2011) The City has seen a steady decline in water consumption since the mid-1990s through a combination of outreach, attention to system losses, and a conservation-oriented pricing structure.

In 2011, the City Council adopted a five-year Water Efficiency Plan that focused on, educating customers, reducing outdoor landscape demands, maintaining the existing savings threshold, City Park landscapes, demonstration gardens, residential and business assistance grants, and energy and water efficiency improvements. The City estimates that outdoor landscaping accounts for 40 percent to 60 percent of water use for residential units.

In February 2014, the City Council approved an ordinance requesting customers to voluntarily reduce their water usage by 10 percent.

The State Water Resources Control Board (SWRCB) adopted new water conservation regulations (Resolution 2014-0038) in July 2014, including select prohibitions for all water users and required actions for all water agencies. City water use restrictions resulting from the SWRCB Resolution include the following:

- Sprinklers that spray pavement, such as sidewalks, driveways or streets
- Irrigation water that runs onto pavement, such as sidewalks, driveways or streets
- Leaking irrigation systems or broken sprinklers that are not repaired within 48 hours of discovery
- Using a hose to wash a driveway, sidewalk or other paved surface
- Washing a car without a shutoff nozzle on the hose
- Serving water at a restaurant without being requested by the customer.

In addition, the City Council declared a Stage 3 Water Shortage Emergency in September 2014 as local water supplies continued to drop during the third year of California's historic drought. Ventura Water customers are now required to limit outdoor watering through a sprinkler irrigation system to two days a week and not water between the hours of 9 a.m. to 6 p.m.

The City is committed to actively implementing numerous water conservation measures. Implementation of these water conservation measures will help sustain existing water supplies and delay the need for new water supplies. (Ventura, 2013) Implementation of residential water conservation measures within the Saticoy Area could result in water savings of approximately 40 percent per household compared to existing residential customers without water conservation measures. This residential water demand reduction could be achieved via changes in personal water use habits, use of highly water efficient indoor fixtures and appliances, and exterior drought tolerant landscaping with improved irrigation management. Similarly, implementation of commercial and industrial measures could result in water savings of approximately 20 percent per business compared to existing customers without water conservation measures. This commercial/industrial water demand reduction could be achieved via changes in employee water use habits, use of highly water efficient indoor fixtures and equipment, and exterior drought tolerant landscaping with improved irrigation management.

2.9 Ventura Water Quality

In general, the City meets all national (US Environmental Protection Agency, USEPA) and State (SWRCB) primary drinking water standards. As noted earlier in this Section, the City has multiple sources of water supplies. The City distributes a blend of treated groundwater, treated Ventura River water, and treated CMWD surface water to customers. If necessary, the City can temporarily shift production or purchases between water sources while resolving a water quality issue with a specific source.

A few of the City's groundwater samples exceeded secondary maximum contaminant levels (aesthetics; i.e., taste and odor) including iron, total dissolved solids, specific conductance, and sulfate. (Ventura, 2014b) A copy of the City's 2014 Consumer Confidence Report, which summarizes the City's water quality for 2013, is provided in **Appendix C**. The City's Ventura River and Casitas supplies did not exceed any primary or secondary maximum contaminant levels. Water from groundwater wells contains higher levels of dissolved solids, minerals and sulfur than Ventura's other water sources. (Ventura, 2014b)

While treated groundwater meets all health requirements, its mineralized content results in deposits on plumbing fixtures and less aesthetically pleasing water quality. A City program to blend water sources to reduce these levels has been in operation while more permanent options are being studied. The City does not anticipate the loss of any of its current or planned supplies or change in reliability due to water quality impacts.

2.10 Potential Future Water Supplies

As previously described, the City of Ventura will provide potable water for the Proposed Project. Anticipated future water supplies for the City as a whole, include CMWD water, City groundwater, and recycled water. Available water supply for 2025 could range from 20,384 to 24,284 AFY. (Ventura, 2014a) Long term water supplies may exceed 25,500 AFY by 2035 (Ventura, 2011) Future potential increases in City water supply are defined in the following sections. **Table 2-1** provides a summary of current and projected City water supplies. As previously noted, each of these water supplies has been impacted by legal proceedings, weather/drought, and/or infrastructure challenges. Therefore, it may be necessary for the City to obtain additional water from one or more sources. The following section provides a summary of the potential future water supplies.

2.10.1 Mound Groundwater Basin

The City anticipates conducting a study within the next few years to review the perennial yield of the Mound Basin. One of the primary objectives of this future study would be to determine if the present understanding of the annual average yield of the basin remains accurate. The anticipated future water supply from the Mound Basin will remain approximately 4,000 AFY. **Table 2-1** provides a summary of current and projected City water supplies. Water from the City's Golf Course Wells, Mound Wells, and Saticoy Wells will continue to be mixed and distributed to the Saticoy area depending on many factors including wells in operation, date of year, water quality, and water demand, etc.

2.10.2 Oxnard Plain Groundwater Basin

Due to the FCGMA Emergency Ordinance E, the City will be restricted to 3,799 AFY by January 1, 2016. (Ventura, 2014a) This reduced allocation equates to a reduction of approximately 31 percent from the City's historical baseline allocation of 5,472 AFY. In addition, the City may be required to pay FCGMA surcharges for exceeding the reduced allocation since the City may not rely on its conservation credits that were set aside during wet years. **Table 2-1** provides a summary of current and projected City water supplies. Water from the City's Golf Course Wells, Mound Wells, and Saticoy Wells will continue to be mixed and distributed to the Saticoy area depending on many factors including wells in operation, date of year, water quality, and water demand, etc.

2.10.3 Santa Paula Groundwater Basin

The low range of this water supply has been increased from zero to the current reliable water supply of 1,600 acre-feet based on recent agreements and studies underway. (Ventura, 2014a) The City is currently constructing Saticoy Well No. 3, which will improve the water supply from the Santa Paula Basin. It is anticipated that Saticoy Well No. 3 will have an operational capacity of 3,000 AFY. In addition, the City recently acquired 5.8 AFY of water rights in the Santa Paula Basin from the past development of Tract 4632. (Ventura, 2014a) Thus, with these adjustments, the City will soon be able to maximize use of the 3,000 AFY allocation from the Santa Paula Basin. **Table 2-1** provides a summary of current and projected City water supplies. Water from the City's Golf Course Wells, Mound Wells, and Saticoy Wells will

continue to be mixed and distributed to the Saticoy area depending on many factors including wells in operation, date of year, water quality, and water demand, etc.

2.10.3.1 Saticoy County Yard Well

In 2004 the County of Ventura proposed relocating its maintenance yard to a site within the Saticoy Community contiguous to the City's water system. (Ventura, 2014a) In exchange for City water service, which required an extraterritorial water service agreement, the County provided the City with a new well (Saticoy County Yard Well) and pipeline facilities. The new well was provided to offset the County's anticipated water demand, as well as, provide significant additional water supply. The County also provided pipeline facilities to a location where the City would eventually complete the remainder of the raw water pipeline to the City's existing Saticoy Conditioning Facility for treatment. The Saticoy County Yard Well was originally anticipated to begin production in 2007, with an estimated 75 percent of design production capacity of 2,400 AFY. (Ventura, 2011)

The City completed the raw water pipeline that connected the County provided raw water pipeline to the City's Saticoy County Yard Well in 2009. (Ventura, 2014a) In November 2009 the City Council was to certify the Final Environmental Impact Report (EIR) for the Saticoy & Wells Community Plan and Development Code. During the certification process the FCGMA and United Water Conservation District (UWCD) voiced concerns regarding the water supply anticipated from the Saticoy Yard Well. Consequently, the City approved a *Limitation and Tolling Agreement* whereby the parties agreed to a cooperative Operations Testing Plan to provide testing of the impact of the water drawn from the Saticoy County Yard Well. As a result of the testing under the Operations Plan it was determined that the April 2004 County of Ventura Saticoy Operations Yard EIR was not sufficient for the anticipated operations of the Saticoy County Yard Well and therefore additional environmental clearance was warranted for operation of the well.

Therefore, due to legal and environmental challenges, the available future water supply from the Saticoy County Yard Well is not known at this time.

2.10.4 Casitas Municipal Water District

While additional Casitas supply (up to 8,000 AFY) may be available to the City in future years, the present annual supply available within the CMWD boundary of the City service system is approximately 5,000 AFY. The City anticipates additional water demand located within the Casitas service area is 379 AFY. (Ventura, 2014a) Therefore, the anticipated future water supply from Casitas will increase by an equivalent amount, to approximately 5,379 AFY, by Year 2020. In general, water from the Lake Casitas facilities will not be distributed to the Project Area in the future.

Casitas recently stated that there may be some time in the near future that Lake Casitas could be at risk due to continued drought conditions and depletion of the Lake Casitas water supply to minimum pool. (Ventura, 2014a) Lake Casitas is currently below 60 percent capacity and is anticipated to reach 50 percent below capacity by the end of 2014. Once Lake Casitas reaches 50 percent capacity, it is anticipated that Casitas will require a cutback to the City's supply. Casitas is presently reviewing its Drought Program and will likely have some changes and improvement to the Program by this summer. The City anticipates a reduction of 10 percent to the City's Casitas supply for the projection of the current drought through 2015. **Table 2-1** provides a summary of current and projected City water supplies.

2.10.5 Ventura River Surface Water Intake and Upper Ventura River Groundwater Basin/Subsurface Intake and Wells

Due to the continued drought conditions, the City's ability to draw water from the Ventura River has been significantly impacted. It is anticipated that future construction of the Foster Park Wellfield Production Restoration Project and the expansion of the Avenue Treatment Plant to its maximum capacity will increase the supply from this source in the future. These improvements are anticipated to restore historical

production capabilities to produce up to 6,700 AFY. (Ventura, 2014a) Therefore, the City estimated a range 0 to 6,700 AFY of potential supply from the Ventura River for the current drought. **Table 2-1** provides a summary of current and projected City water supplies. In general, water from the City's Ventura River facilities will not be distributed to the Project Area in the future.

2.10.6 Recycled/Nonpotable Water

The City's existing Reclaimed Water Policy encourages the use of recycled water. New development located near existing recycled water mains or within the defined recycled water focus area is required to use recycled water in lieu of potable water for irrigation and other uses as appropriate. In general, the City's recycled water facilities are focused along Harbor Boulevard near the City's VWRWF, Ventura Harbor, and Olivas Park Drive from Harbor Boulevard to the Ventura Auto Center. Current total recycled water demand within the City service area is 700 AFY, while anticipated future recycled water demand was estimated at 1,400 AFY (by 2025). In addition, a City recycled water market study determined that there is approximately 18,000 AFY of potential recycled water demand within and adjacent to the City's service area. (City, 2010) **Table 2-1** provides a summary of current and projected City water supplies.

In 1990, the City Council adopted a policy on recycled water use mandating that all new commercial development located near existing recycled water distribution systems must install a dual water system to allow the use of recycled water for landscape irrigation. Recycled water could be used to meet Project Area nonpotable commercial and industrial water demands and landscape irrigation water demands. Recycled water could be used for landscape irrigation in place of potable water. Recycled water could be used for nearly 100 percent of the anticipated landscape irrigation water demands for the proposed residential, commercial, and industrial elements. This Project could include separate recycled pipelines and water meters for all properties. Recycled water demands for the Proposed Project were not estimated as part of this report.

The Proposed Project could include extensive use of City of Ventura recycled water. However, the City does not currently own distribution facilities to provide recycled water to the Project Area. Funding has not been identified to construct a recycled water pipeline to the Project Area. In addition, the Saticoy Sanitary District (SSD) could provide recycled water to the Project Area. However, the SSD does not currently own treatment or distribution facilities to provide recycled water to the Project Area. The SSD does not have sufficient funding to construct the necessary treatment nor distribution facilities to provide recycled water to the Project Area. One other alternative includes use of nonpotable ground water that could be used directly, blended with potable water, and or blended with recycled water. However, there are no known extraction, treatment, or distribution facilities to provide the nonpotable water to the Project Area. Funding has not been identified to construct applicable nonpotable water facilities to the Project Area.

2.10.7 Ocean Desalination

The citizens of Ventura voted November 3, 1993 in favor of desalinating seawater over importing water through the SWP, as the preferred supplemental water supply option. To date, the City has not completed any facilities related to ocean desalination. Funding has not been identified to construct City desalination facilities. City staff have engaged in discussions with other local water agencies in regard to potential regional desalination projects and will continue to do so. (Ventura, 2013)

A report by the Pacific Institute (2006) indicated that the potential benefits of ocean desalination are great, but the economic, cultural, and environmental costs of wide commercialization remain high. Alternatives such as treating low-quality local water sources, regional water transfers, improving conservation and efficiency, and accelerating wastewater recycling and reuse can provide the same freshwater benefits of ocean desalination at far lower economic and environmental costs. The Pacific Institute analysis found that the cost to produce water from a desalination plant is high but subject to significant variability depending

on location, design, plant size, energy costs, etc. Cost estimates for plants proposed in California ranged from \$1,000 per AF to more than \$2,700 per AF. (Pacific Institute, 2006)

2.10.8 State Water Project

The State Water Project (SWP) is the largest state-built, multi-purpose water project in the country. It was authorized by the California State Legislature in 1959, with the construction of most initial facilities completed by 1973. The SWP is owned by the State of California and operated by the DWR. The primary purpose of the SWP is to deliver water to 29 urban and agricultural water suppliers in Northern California, San Francisco Bay Area, San Joaquin Valley, Central Coast, and Southern California, including 20 million urban users and 750,000 acres of farmland. Of the contracted water supply, approximately 70 percent goes to urban users and 30 percent goes to agricultural users.

SWP facilities originate in northern California at Lake Oroville on the Feather River. **Figure 2-3** illustrates the location of major SWP facilities. Storage released from Lake Oroville flows into the Feather River, goes downstream to its confluence with the Sacramento River, and then travels into the Sacramento-San Joaquin River Delta (Delta). Water is pumped from the Delta region to contractors in areas north and south of the San Francisco Bay and south of the Delta. SWP deliveries consist solely of untreated water. The SWP system currently consists of 700 miles of canals and pipelines, 33 storage facilities, 21 reservoirs and lakes, 5 hydro-electric power plants, 4 pumping-generating plants, and 20 pumping plants. (DWR, 2013a)

In 1964, Ventura County Flood Control District contracted with the State of California for future delivery of up to 20,000 AFY of SWP water to Ventura County. (Ventura, 2011) In 1971, administration of the contract for SWP water was assigned to Casitas. The City executed an agreement in 1971 with Casitas and DWR to allocate 10,000 AFY of the entitlement to the City. This obligation extends to 2035. In the contract with Casitas, the City retains full authority and responsibility for advance scheduling of its SWP water and for determining the point and method of delivery. 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 to deliver allocations of water throughout the state. (Ventura, 2011)

To date, the City has not received delivery of its annual SWP allocations directly or through Casitas. At this time the City does not have the facilities required to deliver SWP water into the distribution system. In 1999, the City became a signatory to the SWP Monterey Amendment Settlement Agreement. The Monterey Amendment allows the City and other SWP contractors to sell surplus allocated SWP water back to DWR (also known as the “turn back pool”) to be purchased by other SWP contractors. (Ventura, 2011) The City has taken part in the “turn back” pool in recent years, which has allowed the City to recoup a small part of its annual SWP payment obligation. The City has also worked with United, which requests a portion of the City’s annual SWP allocation (depending on local hydrologic conditions and percent of SWP water available each year) at the “turn back” pool rate. This provides water recharge benefits to the County area as a whole.

Another option for the City includes “wheeling” the water via an agency that has direct access to the SWP. Wheeling is defined as when one agency conveys water through another agency's available infrastructure. Local examples of agencies with direct access to SWP water include City of Oxnard (via Calleguas Municipal Water District, CMWD, and Metropolitan Water District of Southern California, MWD) and Carpinteria Valley Water District (via Central Coast Water Authority). Prior to wheeling water through an agency system, the City may be required to annex to the service area of the corresponding agency which may include significant fixed costs. In addition, most agencies that wheel water require reimbursement for costs associated with capital, maintenance, and operation of the associated facilities. Recent estimates indicate the City would be required to pay over \$1,300/AF to wheel water through MWD’s facilities, not including the wheeling charges assessed by local agencies (i.e., Oxnard and CMWD) and the DWR fixed/variable costs for the SWP water. (Ventura, 2013)

Recent changes in the regulations and the current potential market for state water has provided a possible opportunity for the City to recover a more significant revenue offset. (Ventura, 2014a) However, at the same time the annual costs associated with SWP water are anticipated to increase substantially while the available supplies (Table A amounts) from the state has decreased resulting in a reduction of allocation to SWP Contractors in recent years to 40 to 50 percent. The higher costs and lower supplies are primarily due to several years of drought and environmental concerns over protecting endangered species. The City is evaluating the existing policy on SWP water and the City’s options related to short term and long term leases of its SWP entitlement. (Ventura, 2014a)



Source: CA DWR.

FIGURE 2-3
STATE WATER PROJECT FACILITIES

2.10.8.1 SWP Reliability

The DWR "State Water Project Delivery Reliability Report" (DWR, 2013a) provides SWP contractors with an assessment of the reliability of the SWP component of their overall supplies. "Water delivery reliability" is defined as the annual amount of water that can be expected to be delivered with a certain frequency. Water delivery reliability depends on three general factors: the availability of water, the ability to convey water to the desired point of delivery, and the magnitude of demand for the water. SWP delivery reliability is calculated using computer simulations based on 82 years of historical data. The DWR Report includes "Table A" which provides a projection of potential deliveries of imported surface water for the SWP contractors for the average water year scenario, single dry-year scenario, and multiple dry-year scenario. Table A contract amounts do not reflect actual deliveries a contractor should expect to receive. The DWR Report also discusses factors having the potential to affect SWP water delivery reliability including the following:

- Restrictions on SWP and Central Valley Project (CVP) operations due to new regulations and legal findings to protect endangered species
- Climate change and sea level rise, which is altering the hydrologic conditions in the State
- Vulnerability of Delta levees to failure due to floods and earthquakes
- Annual snowpack
- Reservoir capacity.

Contractors' requests for SWP water deliveries cannot always be met. In some years there are water shortages and in other years water surpluses. It was thought at the time that the SWP was constructed that the system could deliver about 50 percent of the allocations in a very dry year. In 2012, SWP contractors received 2,564,902 AF (61 percent) of their SWP Table A allocations. (DWR, 2013a) Deliveries for the 2003-2012 period averaged 2,226,000 AF (53 percent) for Table A allocations. The DWR Report provides a projection of DWR's water delivery reliability of the SWP for current (2013) scenario and future (2033) scenario.

The DWR Report indicated that the SWP, using existing facilities operated under current regulatory and operational constraints and future anticipated conditions, and with all contractors requesting delivery of their full Table A allocations in most years, could deliver 58 percent of Table A allocations on a long-term average basis. However, in a single dry-year (worst case scenario) DWR estimated delivery of an average of only 11 percent of Table A allocations. In a four- year drought scenario, the DWR estimated delivery of an average of 31 percent of Table A allocations.

The DWR Report recognized continuing challenges to the ability of the SWP to deliver full contractual allocations of SWP water. Factors that affect the ability to estimate existing and future SWP water delivery reliability include the following:

- water availability at the source
- water rights with priority over the SWP
- climate change
- regulatory restrictions on SWP exports
- ongoing environmental and policy planning efforts
- San Joaquin River/Sacramento River Delta levee failure.

2.11 Establish Water Dedication and In-Lieu Fee Ordinance

In September 2012, Ventura Water took the concept of a water dedication and in-lieu fee ordinance to the City Council. As new development is proposed, a consistent methodology is important for securing water resources and projecting water demands. To maintain the City's supply levels and support long term sustainability, Ventura Water drafted language for inclusion in a new Water Dedication and In-Lieu Fee Ordinance. The draft Ordinance includes requirements for developers to transfer water rights to the City (i.e., ground water), developers to pay to offset new development demand, and or developers to pay in-lieu fees. Parcels that are within the Fox Canyon Groundwater Management Agency (FCGMA) boundary that use groundwater for current water use have an opportunity to bring water rights with any proposed development. The draft Ordinance would establish two zones to levy the water dedication in-lieu fee. Zone 1 would encompass the area that can be served by Casitas, while Zone 2 would encompass the area outside the Casitas service area. The Proposed Project would be located in Zone 2. The draft in-lieu fees ranged from \$8,000 to \$18,000 per acre foot of new demand. This draft Ordinance could require in-lieu fees of up to \$10,000,000 (\$18,000/AF x 560 AF; see **Section 3.3** for details). At present, the water dedication and in-lieu fee Ordinance remains in draft form. No timeline is known for adoption of the final Ordinance.

This draft Ordinance could have implications for the Proposed Project. If developers of projects within the Proposed Project area do not provide a reliable and acceptable water supply to the City, then the in-lieu fee provisions could apply to all new development within the Project Area. The draft in-lieu fees ranged from \$8,000 to \$18,000 per acre foot of new demand. It is not known whether the Ordinance would modify City Municipal Code 22.110.055.A.2.d that restricts meter sizes to less than three-fourths inch (3/4 in) for water connections outside City limits.

2.12 Ventura-Oxnard Emergency Intertie

The City has identified the Ventura/Oxnard Emergency Intertie Project as a potential emergency interconnection with the City of Oxnard. (Ventura, 2011) This project would provide an interconnection with the City of Oxnard's Booster Station No. 4 and the City's 430 Pressure Zone. The West County Water Supply Reliability Study, which recommended an emergency connection with the City of Oxnard water system, was completed in late 2003. The West Ventura County Emergency Intertie Initial Study/Mitigated Negative Declaration was completed in June 2007. The Ventura/Oxnard Emergency Water Intertie is a potential project identified in the City's Capital Improvement Project Plan 2008-2013, but is unfunded at this time. As noted in **Section 2.10.8**, this intertie option may require the City to annex to the City of Oxnard service area which may include significant fixed costs. In addition, the City of Oxnard may require Ventura to pay for reimbursement of costs associated with capital, maintenance, and operation of the associated facilities.

2.13 Climate Change

State and local water resources and water demands may be impacted by climate change via one or more processes including precipitation, air temperature, runoff, sea level change, and flooding. Rainfall variability is expected to increase, leading to more frequent droughts and floods. Runoff from snowpack may be earlier and less predictable, and precipitation may fall as more rain and less snow.

In the DWR Water Plan (2013b), an assessment of the impacts of global climate change on the State's water supply was conducted using a series of computer models based on decades of scientific research. Model results for California indicate a significant likelihood of increased temperature, reduction in Sierra Nevada mountains snow depth, early snow melt, and a rise in sea level. These changing hydrological

conditions could affect future planning efforts which are typically based on historic conditions. Difficulties in water resources planning that may arise include, but are not limited to, the following:

- hydrological conditions, variability, and extremes that are different than what current water systems were designed to manage
- changes occurring too rapidly to allow sufficient time and information to permit managers to respond appropriately
- special efforts or plans to protect against surprises and uncertainties.

As such, DWR will continue to provide updated results from these models as further research is conducted and information becomes available.

2.13.1 Local Water Supply Strategies to Adjust to Climate Change

As climate change continues to unfold in the coming decades, water agencies, may need to mitigate and adapt to new strategies, which may require reevaluating existing agency missions, policies, regulations, facilities, funding priorities, and other responsibilities. Examples of mitigation and adaptation strategies include, but not limited to, the following:

- prepare long-term facility and sustainability master plan including specific elements for climate change adaptation
- increase ground water recharge using additional surface water and recycled water
- promote use of recycled water
- promote water use efficiency for urban, agricultural, commercial, and industrial best management practices
- increase investments in infrastructure that promotes adaptation strategies (such as ground water recharge, and recycled water) and existing principal facilities susceptible to impacts of climate change.

SECTION 3: WATER DEMANDS

This section summarizes the current water demands and estimated future water demands within the Project Area.

3.1 Current Project Area Water Demand

As noted in **Section 2.1**, the Project Area is served potable water by the Ventura Water (City of Ventura). Current water demand within the Project Area is 150.4 AFY based on data available for fiscal year 2011 to 2012. (Ventura, 2012) This is the most recent data available from the City. This water demand includes all potable and nonpotable demands. Current water demand within the Project Area includes the following:

- 78.3 AFY for estimated current residential developments
- 72.1 AFY for estimated current commercial, industrial, and community developments.

3.2 Current City Water Demand

Total 2013 water consumption for all City accounts was 17,723 AFY (including 6.5 percent water loss factor), down slightly from 2012 (18,004 AFY). (Ventura, 2014a) This decrease can mainly be attributed to the prolonged economic downturn and increased water rates. **Table 3-1** summarizes current and future City water demands from 2013 to 2021. Over the past five years (2009-2013), the City experienced an average annual water demand of 17,343 AFY, while over the past ten years (2004-2013), the annual average water demand was 18,373 AFY. City staff support the five year annual average demand (17,343 AFY) as the City's baseline demand (i.e., consistent with current conditions).

**TABLE 3-1
CURRENT AND PROJECTED CITY WATER DEMAND**

	2013	2014	2015	2016	2017	2018	2019	2020	2021
Total Water Demand (a,b)	17,723	17,501	17,660	17,819	17,977	18,136	18,295	18,428	18,428

Notes:

- a) Source: Ventura, 2014.
b) All values in AFY.

3.3 Future Project Area Water Demand

3.3.1 Estimated Project Water Demand

As noted above, current water demand within the Project Area is estimated to be 150.4 AFY based on data for fiscal year 2011 to 2012. (Ventura, 2012) **Table 3-2** provides a summary of the estimated current and proposed water demands for the Proposed Project. Build-out of the Proposed Project may include a reduction of 23 single family units (compared to existing Saticoy Area Plan scenarios), an increase of 123 multi-family units, and 1,812,600 square feet of additional commercial and industrial development. Based on water demand factors provided by the City, additional water demand for the Proposed Project is

estimated to be 563 AFY. Total water demand for the Proposed Project at build-out is estimated to be 713.4 AFY which includes current and proposed water demands for potable and non-potable water. As proposed, the additional water demand will be achieved over the 20 year projected time horizon (2015 to 2035) of the Proposed Project. Therefore, the annual increase in water demand is estimated to be 56 AFY based on a 10-year absorption rate, or 28.2 AFY based on a 20-year absorption rate.

The Proposed Project will utilize water primarily for the following:

- 150.4 AFY for estimated current residential, commercial, industrial, and community developments
- 24.9 AFY for proposed new residential developments
- 538.1 AFY for proposed new commercial, industrial, and community developments.

**TABLE 3-2
ESTIMATED CURRENT AND PROPOSED PROJECT AREA WATER DEMAND**

Water Demand	Net Change in Number of Units (b)	Daily Demand Factor (c)	Total Annual Demand (AFY) (d)
Existing Water Demand			
Residential (a)			78.3
Commercial, Industrial, Community (a)			72.1
Total Existing Water Demand			150.4
Proposed Additional Water Demand			
Residential – single family (du) (0-8 du/ac) (e)	-23	370	-9.5
Residential – multiple family (du) (9-21+ du/ac) (e,f)	123	250	34.4
Commercial, Industrial, Community (1,000 sf) (g)	1,812.6	265	538.1
Total Proposed Additional Water Demand			563.0
Total Water Demand at Build-out			713.4

Notes:

(a) Source: email from Ventura Water to County of Ventura, August 30, 2012. Data for July 2011 – June 2012.

(b) Source: email from County of Ventura, October 15, 2014.

(c) Ventura Water, Comprehensive Water Resources Report, 2014, Table 3-6.

(d) Total demand values rounded.

(e) Demand factor units – gallons per dwelling unit per day.

(f) Net change = summation of multifamily units and convalescent hospital units

(g) Demand factor units – gallons per 1,000 square feet of developed area per day.

The Proposed Project could incorporate extensive water conservation measures for indoor and outdoor elements. Annual water demand values in **Table 3-2** incorporate significant water demand reductions including but not limited to highly water efficient fixtures and appliances by the proposed residential, commercial, and industrial elements. These water efficient fixtures and appliances are anticipated to be used throughout the bathrooms, kitchens, and laundry facilities for development within the Plan Area. In

addition, the Proposed Project could incorporate use of landscape standards that require use of drought tolerant plants and low water use landscape design.

State of California, Ventura County, and City policies for water conservation and water resources will be incorporated in the Proposed Project. As an example, the Ventura County Draft Saticoy Area Plan Update (Ventura County, 2015 anticipated), includes water conservation-related policies PF-2.1, LU-1.1, and RES-2.2. Policy PF-2.1 states the following:

“Discretionary development shall be designed to protect water quality and maximize the use of water conservation measures including, but not limited to:

- *Water-conserving landscaping and irrigation systems;*
- *Low impact development techniques;*
- *Use of gray water systems; and*
- *Dual plumbing systems that allow use of recycled water for non-potable purposes”.*

The County Water Management Plan (1995) also includes policies and programs related to water supplies, water demand management, and water recycling. In addition, the Proposed Project will be required to comply with the 2013 California Green Building Standards Code (incorporated in County Building Code), which sets mandatory green building measures, including use of water conserving plumbing fixtures and fittings for indoor water use, as well as regulations addressing landscape irrigation and design.

Recycled water could be used for landscape irrigation in place of potable water. Recycled water could be used for nearly 100 percent of the anticipated landscape irrigation water demands and limited commercial/industrial interior uses for the proposed residential, commercial, and industrial elements. This Project could include separate recycled pipelines and water meters for all properties. An average-sized local single family residential unit may achieve a reduced potable water demand of approximately 25 percent on an annual basis via use of recycled water for exterior uses and approximately 50 percent during the dry months of the year. Commercial and industrial customers may achieve a reduced potable water demand of approximately 10 to 25 percent on an annual basis via use of recycled water for exterior uses and limited interior uses. The Project could include extensive use of City of Ventura recycled water for nonpotable residential, commercial, and industrial water demands and landscape irrigation water demands. However, the City does not currently own distribution facilities to provide recycled water to the Project Area. In addition, the Saticoy Sanitary District (SSD) could provide recycled water to the Project Area. However, the SSD does not currently own treatment or distribution facilities to provide recycled water to the Project Area. Recycled water demands for the Proposed Project were not estimated as part of this report.

The County anticipates that 64 percent of the proposed additional industrial development within the Project Area will include a mixture of light and medium industrial businesses (955,100 square feet) at build-out. Anticipated additional heavy industrial businesses will be only 36 percent (542,000 square feet) of the additional industrial development at build-out. The County estimates that existing Project Area industrial development results in very low water demand due to business types present, negligible landscape present, and the City requirement for use of a maximum of three-fourths inch meters for all customers outside City limits (as per City Municipal Code 22.110.055.A.2.d). Therefore, the County proposes an alternative water demand factor for the light and medium industrial development of 60 gallons per 1,000 square feet of developed area per day (compared to City’s value of 265 gallons per 1,000 square feet of developed area per day; see **Table 3-3**).

This alternative water demand factor is based on the light industrial development water demand factor of 60 gallons per 1,000 square feet of developed area per day by City of Thousand Oaks (2005). In addition, this alternative water demand factor is similar to the industrial water demand factor of 71 gallons per 1,000 square feet of developed area per day by City of Santa Barbara (2009). For proposed heavy industrial development, the County will utilize the City’s water demand factor of 265 gallons per 1,000 square feet of developed area per day. **Table 3-3** indicates that the alternative water demand factor for the proposed light

and medium industrial development results in a total proposed additional water demand of 343.6 AFY and a total water demand of 494 AFY at build-out. Use of the alternative industrial water demand factor (**Table 3-3** used 60 gallons per 1,000 square feet of light and medium industrial developed area per day compared to 265 gallons per 1,000 square feet) results in total proposed additional water demand of 343.6 AFY (as compared to 563 AFY) for a reduction of 219.4 AFY. See **Tables 3-2 and 3-3** for additional details.

TABLE 3-3
ESTIMATED CURRENT AND PROPOSED PROJECT AREA WATER DEMAND
WITH ALTERNATIVE WATER DEMAND FACTOR

Water Demand	Net Change in Number of Units (b)	Daily Demand Factor (c)	Total Annual Demand (AFY) (d)
Existing Water Demand			
Residential (a)			78.3
Commercial, Industrial, Community (a)			72.1
Total Existing Water Demand			150.4
Proposed Additional Water Demand			
Residential – single family (du) (0-8 du/ac) (e)	-23	370	-9.5
Residential – multiple family (du) (9-21+ du/ac) (e,f)	123	250	34.4
Commercial and Retail (1,000 sf) (g)	315	265	93.6
Light Industrial (1,000 sf) (g,h)	604.9	60	40.7
Medium Industrial (1,000 sf) (g,h)	350.2	60	23.5
Heavy Industrial (1,000 sf) (g)	542.2	265	161
Total Proposed Additional Water Demand			343.6
Total Water Demand at Build-out			494.0

Notes:

(a) Source: email from Ventura Water to County of Ventura, August 30, 2012. Data for July 2011 – June 2012.

(b) Source: email from County of Ventura, October 15, 2014.

(c) Ventura Water, Comprehensive Water Resources Report, 2014, Table 3-6.

(d) Total demand values rounded.

(e) Demand factor units – gallons per dwelling unit per day.

(f) Net change = summation of multifamily units and convalescent hospital units.

(g) Demand factor units – gallons per 1,000 square feet of developed area per day.

(h) daily demand factor based on City of Thousand Oaks.

3.3.2 City Water Dedication and In-Lieu Fee Ordinance

As noted in **Section 2.11**, the Proposed Project may be required to comply with a draft City Ordinance in order to obtain approval of future development within the Project Area. If implemented the draft Ordinance would require developers to dedicate adequate water resources to support a new or intensified development or pay an in-lieu fee so that the City can develop the necessary water supplies. The City Ordinance remains in draft form at the current time with no known timeline for approval.

As previously noted, this draft Ordinance could have significant implications for the Proposed Project. If developers of projects within the Proposed Project area do not provide a reliable and acceptable water supply to the City, then the in-lieu fee provisions could apply to all new development within the Project Area. The draft in-lieu fees ranged from \$8,000 to \$18,000 per acre foot of new demand. This draft Ordinance could require in-lieu fees of up to \$10,000,000 ($\$18,000/\text{AF} \times 560 \text{ AF}$) for the entire Project Area. In addition, it is not known whether the Ordinance would modify City Municipal Code 22.110.055.A.2.d that restricts meter sizes to less than three-fourths inch (3/4 in) for water connections outside City limits.

3.4 Future City Water Demand

The City's Comprehensive Water Resources Report (Ventura, 2014a) projected water demands including the current baseline and future growth (near term of 8 years only; 2014 to 2021). As previously noted, the current City water demand (baseline demand) is 17,343 AFY (based on annual average for most recent 5-year period). Water demands for future growth were based on development projects that have been approved by the City but are not yet connected to the City's water system. This includes projects that are currently under construction or were under construction in December 2013, and projects with necessary City approvals, but have yet to begin construction. Water demand for future growth was estimated to be 1,085 AFY. Therefore, the total near-term water demands were estimated to be 18,428 AFY by 2021, as noted in **Table 3-1**. (Ventura, 2014a) In addition, the Proposed Project may include an additional water demand with a range of 343.6 to 563 AFY at build-out. Including the maximum potential water demand for the Proposed Project, the City's total water demands would be approximately 18,988 AFY.

3.5 Comparison of Future City Water Supplies and Water Demands

Comparison of future City water supplies and water demands must be completed in context of meteorological conditions, status of water production facilities, City's financial status and regulatory climate, among other factors. Based on the most current City estimates (Ventura, 2014a), and assuming all factors are normal, the City's projected future water demands will be approximately 18,988 AFY (including the Proposed Project). Projected City water supplies, assuming all factors are normal, will be approximately 19,684 to 23,584 AFY by 2020 and 20,384 to 24,284 AFY by 2025. (Ventura, 2014a) A range for the water supplies was provided due to uncertainties associated with environmental and legal constraints. Under normal water-year conditions, the City should have a water supply surplus of approximately 700 to 1,400 AFY through 2025.

However, the current drought and regulatory responses to the drought may force the City to significantly reduce groundwater extractions and reduce surface water purchases. The City estimated that water supplies could be reduced by 20 to 25 percent of normal for 2015 (14,824 to 16,824 AFY) if extreme reductions in water supplies were necessary. (Ventura, 2014a) In a true worst-case scenario, available water supplies would be reduced to or beyond extreme levels, yet water demands would remain flat (or increase) creating a condition when demand exceeds supply. Based on the last 2 years, both were drought years locally, City water demands decreased by nearly 300 AFY. This demand reduction occurred prior to the significant State and City public outreach programs initiated in 2014. It is anticipated that City water demands for existing

connections will continue to decrease due to implementation of additional water conservation programs. In addition, the City has an extensive water shortage contingency plan available (Ventura, 2010) with provisions for creating demand reductions of 10 to 50 percent. Therefore, if all of the water supply reductions were implemented simultaneously reducing supplies to 14,824 to 16,824 AFY (based on 2015 example), the City would implement measures to reduce water demands to levels that achieve a balance with available supplies.

SECTION 4: SUMMARY AND CONCLUSIONS

4.1 Proposed Project

The Proposed Project is a comprehensive update of the Saticoy Area Plan (see **Section 1** for details). Collectively, these revisions are referred to as the Proposed Project (PL14-0066). The Proposed Project will require a General Plan Amendment, adoption of a new Development Code for Old Town Saticoy and limited text amendments to the Non-Coastal Zoning Ordinance (NCZO). The time horizon for the Proposed Project is 20 years, which is 2015 to 2035. The Proposed Project is located within the jurisdiction of the County of Ventura and adjacent to the eastern boundary of the City of Ventura (i.e., outside City limits). Build-out of the Proposed Project may include a reduction of 23 single family units (compared to existing development), an increase of 123 multi-family units, and 1,812,600 square feet of additional commercial and industrial development.

4.2 Water Supply

The primary source of potable water for the Project Area is provided by the Ventura Water (City of Ventura). Originally, water was provided to the Project Area by the Saticoy Water Company, which was purchased by the City in the late 1960's. As part of that purchase, the City agreed to continue service to all customers served by the Saticoy Water Company. City Municipal Code 22.110.055 includes a provision (subsection A.2.d) that restricts meter sizes to a maximum of three-fourths inch (3/4 in) for customers outside City limits. This provision significantly restricts new development within the Project Area.

The City's potable water supply is derived from local groundwater basins, Lake Casitas, and sub-surface water from the Ventura River. The City also has a 10,000 acre-foot per year allocation from the California State Water Project. To date the City has not received any of this water because there are no facilities to get the water to the City. There are presently six local water sources that provide water within the City including the following:

- Mound Groundwater Basin
- Oxnard Plain Groundwater Basin
- Santa Paula Groundwater Basin
- Casitas Municipal Water District
- Ventura River Foster Park Area
 - * Surface Water Intake
 - * Upper Ventura River Groundwater Basin/Subsurface Intake and Wells
- Recycled (and/or nonpotable) water.

In addition, the City recognizes that water use efficiency is an integral component of a responsible water strategy and is committed to providing education, tools, and incentives to help its customers reduce the amount of water they use. (Ventura, 2011) Recent actions by the City Council include declaration of a Stage 3 Water Shortage Emergency in September 2014 as local water supplies continued to drop during the third year of California's historic drought.

As previously noted, each of the City's existing water supplies has been impacted by legal proceedings, weather/drought, and or infrastructure challenges. Therefore, it may be necessary for the City to obtain additional water from one or more sources. In addition to maximizing production from the existing six sources of water noted above, the City may pursue future additional water supplies from the following:

- Ocean Desalination
- State Water Project Water.

Water from the City's Golf Course Wells, Mound Wells, and Saticoy Wells will continue to be mixed and distributed to the Project Area depending on many factors including wells in operation, date of year, water quality, and water demand, etc. In general, water from the Lake Casitas facilities and Ventura River facilities will not be distributed to the Project Area in the future.

It is anticipated that the City of Ventura will continue to provide potable water through the 20 year time horizon of the Proposed Project. The City's available water supply is constantly changing, depending upon environmental and legal constraints. The City's 2015 available water supply is 19,535 to 20,935 AFY (see **Table 2-1** for details). However, drought impacts and regulatory restrictions could reduce the 2015 available water supply to an annual average of 14,824 to 16,824 AFY (amount is less than the projected water demand). (Ventura, 2014a) Available water supply for 2025 could range from 20,384 to 24,284 AFY. (Ventura, 2014a) Long term water supplies may exceed 25,500 AFY by 2035 (Ventura, 2011)

4.3 Water Demand

Total 2013 water demand for all City customer accounts was 17,723 AFY. (Ventura, 2014a) See **Table 3-1** for details associated with water demand within the City. Near term City water demand was estimated to be 18,428 AFY by 2021 (Ventura, 2014a), while long term water demand may exceed 22,345 AFY by 2035. (Ventura, 2011)

Current water demand within the Project Area is estimated to be 150.4 AFY (Ventura, 2012) based on data for fiscal year 2011 to 2012 (see **Table 3-2** for details). Based on water demand factors provided by the City, additional water demand for the Proposed Project is estimated to be 563 AFY. Total water demand for the Proposed Project at build-out is estimated to be 713.4 AFY which includes current and proposed water demands for potable and non-potable water. As proposed, the additional water demand will be achieved over the 20 year projected time horizon (2015 to 2035) of the Proposed Project. Therefore, the annual increase in water demand is estimated to be 56 AFY based on a 10-year absorption rate, or 28.2 AFY based on a 20-year absorption rate.

The County estimates that light and medium industrial development within the Proposed Project area will tend to result in very low water demand due to anticipated business types present, negligible landscape installed, and the City requirement for use of a maximum of three-fourths inch meters for all customers outside City limits (as per City Municipal Code 22.110.055.A.2.d). Therefore, the County proposes an alternative water demand factor for the light and medium industrial development of 60 gallons per 1,000 square feet of developed area per day (compared to City's value of 265 gallons per 1,000 square feet of developed area per day; see **Table 3-2**). This alternative water demand factor is based on the light industrial development water demand factor of 60 gallons per 1,000 square feet of developed area per day by City of Thousand Oaks (2005). In addition, this alternative water demand factor is similar to the industrial water demand factor of 71 gallons per 1,000 square feet of developed area per day by City of Santa Barbara (2009). For proposed heavy industrial development, the County will utilize the City's water demand factor of 265 gallons per 1,000 square feet of developed area per day. **Table 3-3** indicates that the alternative water demand factor for the proposed light and medium industrial development results in a total proposed additional water demand of 343.6 AFY and a total water demand of 494 AFY at build-out. Use of the alternative industrial water demand factor (60 gallons per 1,000 square feet of developed area per day) for

the proposed light and medium industrial development results in total proposed additional water demand of 343.6 AFY (reduction of 219.4 AFY) as compared to 563 AFY following use of the City's water demand factor (265 gallons per 1,000 square feet of developed area per day). See **Tables 3-2 and 3-3** for additional details.

The Proposed Project could incorporate extensive water conservation measures for indoor and outdoor elements. Annual water demand values in **Table 3-2** and **Table 3-3** incorporate significant water demand reductions including but not limited to highly water efficient fixtures and appliances by the proposed residential, commercial, and industrial elements. These water efficient fixtures and appliances are anticipated to be used throughout the bathrooms, kitchens, and laundry facilities within the development. In addition, development within the Proposed Project area could incorporate use of landscape standards that require minimal landscape design and irrigation demands.

State of California, Ventura County, and City policies for water conservation and water resources will be incorporated in new development and re-development projects within the Proposed Project area during the development permitting processes. As an example, the Ventura County Draft Saticoy Area Plan Update (Ventura County, 2015 anticipated), includes several policies including PF-2.1 which states the following:

“Discretionary development shall be designed to protect water quality and maximize the use of water conservation measures including, but not limited to:

- *Water-conserving landscaping and irrigation systems;*
- *Low impact development techniques;*
- *Use of gray water systems; and*
- *Dual plumbing systems that allow use of recycled water for non-potable purposes.”*

The County Water Management Plan (1995) also includes policies and programs related to water supplies, water demand management, and water recycling. In addition, development within the Proposed Project area will be required to comply with the 2013 California Green Building Standards Code (incorporated in County Building Code), which sets mandatory green building measures, including use of water conserving plumbing fixtures and fittings for indoor water use, as well as regulations addressing landscape irrigation and design.

The City's existing Reclaimed Water Policy encourages the use of recycled water. New development located near existing recycled water mains or within the defined recycled water focus area is required to use recycled water in lieu of potable water for irrigation and other uses as appropriate. Recycled water could be used to meet Project Area nonpotable residential, commercial, and industrial water demands and landscape irrigation water demands. Recycled water could be used for nearly 100 percent of the anticipated landscape irrigation water demands for the proposed residential, commercial, and industrial elements. This Proposed Project could include separate recycled pipelines and water meters for all properties. However, the City does not currently own distribution facilities to provide recycled water to the Project Area. In addition, the Saticoy Sanitary District (SSD) could provide recycled water to the Project Area. However, the SSD does not currently own treatment or distribution facilities to provide recycled water to the Project Area.

Development within the Proposed Project area may be required to comply with a draft City Water Dedication and In-Lieu Fee Ordinance in order to obtain approval of the future development within the Project Area. The City Ordinance remains in draft form at the current time with no known date for final approval. However, if implemented the Ordinance would require developers to dedicate adequate water supplies to support a new or intensified development or pay an in-lieu fee so that the City can develop the necessary water supplies. This draft Ordinance could have significant implications for the Proposed Project. If proposed development within the Proposed Project area does not provide a reliable and acceptable water supply to the City, then the in-lieu fee provisions could apply to all new development within the Project Area. The draft in-lieu fees ranged from \$8,000 to \$18,000 per acre foot of new demand. This Ordinance could require in-lieu fees of up to \$10,000,000 for the entire Project Area. In addition, it is not known

whether the Ordinance would modify City Municipal Code 22.110.055.A.2.d that restricts meter sizes to less than three-fourths inch (3/4 in) for water connections outside City limits.

4.4 Conclusions

The City's water supply and water projections, including the various unknowns associated with the drought and regulatory restrictions, may present significant challenges for the City moving forward in the ability to allocate water supply to development projects that generate additional water demands. Comparison of future City water supplies and water demands must be completed in context of meteorological conditions, status of water production facilities, City's financial status, regulatory climate, among other factors. Based on the most current City estimates (Ventura, 2014a), and assuming all factors are normal, the City's projected future water demands will be approximately 18,988 AFY (including the Proposed Project). Projected City water supplies, assuming all factors are normal, will be approximately 19,684 to 23,584 AFY by 2020 and 20,384 to 24,284 AFY by 2025 (Ventura, 2014a). A range for the water supplies was provided due to uncertainties associated with environmental and legal constraints. Under normal water-year conditions, the City should have a water supply surplus of approximately 700 to 1,400 AFY through 2025.

However, the current drought and regulatory responses to the drought may force the City to significantly reduce groundwater extractions and reduce surface water purchases. The City estimated that water supplies could be reduced by 20 to 25 percent of normal for 2015 (14,824 to 16,824 AFY) if extreme reductions in water supplies were necessary due to the drought. (Ventura, 2014a) In a true worst-case scenario, available water supplies would be reduced to or beyond extreme levels, yet water demands would remain flat (or increase) creating a condition when demand exceeds supply. Based on the last 2 years, both were drought years locally, City water demands decreased by nearly 300 AFY. This demand reduction occurred prior to the significant State and City public outreach programs initiated in 2014. It is anticipated that City water demands for existing connections will continue to decrease due to implementation of additional water conservation programs. In addition, the City has an extensive water shortage contingency plan available (Ventura, 2010) with provisions for creating demand reductions of 10 to 50 percent. Therefore, if all of the water supply reductions were implemented simultaneously reducing supplies to 14,824 to 16,824 AFY (based on 2015 example), the City would implement measures to reduce water demands to levels that achieve a balance with available supplies.

New and re-development efforts associated with the Proposed Project should include measures to mitigate the water supply challenges such as dedication of water supplies to support the new development, pay an in-lieu fee so that the City can develop the necessary supplies, and or develop nonpotable/recycled water supplies within the Project Area.

REFERENCES

- State of California Department of Water Resources (DWR). 2013a. The State Water Project Draft Delivery Reliability Report 2013.
- DWR. 2013b. California Water Plan.
- State of California Building Standards Commission. 2013. Green Building Standards Code. California Code of Regulations, Title 22, Part 11.
- Fox Canyon Groundwater Management Agency. 2007. 2007 Update to the Fox Canyon Groundwater Management Agency Groundwater Management Plan.
- Fugro West, Inc. 1997. Mound Groundwater Basin Annual Report.
- Pacific Institute. 2006. Desalination, With a Grain of Salt – A California Perspective.
- City of Santa Barbara. 2009. Water Demand Factor Update Report.
- City of Thousand Oaks. 2005. Water Master Plan.
- City of Ventura. 2014a. 2014 Comprehensive Water Resources Report. Prepared by RBF Consulting.
- City. 2014b. Drinking Water Consumer Confidence Report.
- City. 2013. 2013 Comprehensive Water Resources Report. Prepared by RBF Consulting.
- City. 2012. Email from Mary Landis, Ventura Water, to Shelley Sussman, County of Ventura.
- City. 2011. Urban Water Management Plan. Prepared by Kennedy/Jenks Consultants.
- City. 2010. Recycled Water Market Study Phase 1 Report.
- Ventura County. 2015. Preliminary Draft Saticoy Area Plan Update. In preparation.
- County. 1995. Ventura County Water Management Plan.
- Watersheds Coalition of Ventura County. 2014. Integrated Regional Water Management Plan.
- Western Regional Climate Center (WRCC). 2014. Monthly Climate Summary and Temperature Summary obtained via WRCC website, <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca9285>, November 2, 2014.

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APPENDICES

- A Agreement for Sale of Saticoy Water Company Water System
- B City of Ventura Policy, Water Connections Outside of City Limits
- C City of Ventura, 2014 Drinking Water Consumer Confidence Report

Appendix A

Agreement for Sale of Saticoy Water Company Water System

JUL 17 1968

AGREEMENT FOR SALE OF
SATICOY WATER COMPANY
WATER SYSTEM

I.

INTRODUCTION

THIS AGREEMENT, made and entered into this
22nd day of July, 1968, by and
between the CITY OF SAN BUENAVENTURA, a municipal corpor-
ation of the State of California (the "City") and SATICOY
WATER COMPANY, a California corporation (the "Seller").

II.

RECITALS AND DEFINITIONS

2.01 - Seller's Service Within the City.

The seller is a public utility which serves por-
tions of the City with water service and, as a part of the
same integrated system it provides such service to areas
outside the City pursuant to a franchise and certificate of
convenience and necessity and has constructed, maintained
and installed water system facilities, both within and with-
out the boundaries of the City in connection with such ser-
vice.

2.02 - City's Plan for Municipal Ownership.

The City has determined that as a matter of public
policy all portions of the City should receive water service

3

from facilities owned by the City and to that end, either by means of condemnation or by negotiated purchase, the City proposes to acquire the properties and facilities of the seller in the City and such other properties and facilities of the seller as are integrally connected to the facilities of the seller that are used to render service in the City.

2.03 - Basis of Agreement.

The parties share the belief that it is desirable to avoid the expense, delay and other difficulties which would result from proceedings by the City to condemn said properties and facilities of the seller and, in lieu of such condemnation proceedings, have agreed to arrange for such acquisition by entering into this Agreement.

2.04 - Water System Revenue Bonds.

In anticipation of the acquisition contemplated hereby and the further improvement of water service within the City, on or before October 1, 1968, electors of the City will vote on whether or not to approve the issuance and sale of water system revenue bonds pursuant to an ordinance to be adopted by the City Council of the City.

2.05 - Definitions.

(a) Water System. The "Water System" is the property and assets of seller which are used or useful in rendering water service to the customers of seller and are listed as follows:

(1) All of the parcels of real property and the other properties and assets described in Exhibit "A", attached hereto and made a part hereof, subject only to matters or exceptions set forth in

said Exhibit "A".

(2) Other property and all leases, agreements, easements, rights of way, franchises, certificates of public convenience and necessity, permits, licenses, and similar rights and privileges, owned by seller on the Closing Date which are used or useful in rendering service to seller's customers. It is understood that Alta Mutual Water Company's lease of land occupied by seller's office building will not be transferred and that Alta Mutual Water Company's lease of Well No. 10 to Saticoy will terminate upon sale of Company to City.

(3) All water rights, both surface and subsurface (including inchoate rights and undivided interests and rights), owned or claimed by seller on the Closing Date.

(4) All records and maps of seller relating to the operation and ownership of the property to be transferred hereunder, including customer accounts, operating and title records of every nature, including engineering records and billing records; provided that seller's corporate minute book, capital stock records, seal and other corporate records not pertinent to said Water System shall not be transferred hereunder. Seller shall be permitted to have access to such records and maps to be transferred hereunder at all reasonable times whenever necessary or desirable in connection with the winding up of the affairs of seller.

(b) Purchase Price. The "Purchase Price" is

see
10/1 \$ 1,963,634.78, of which \$

is allocated by the parties to real property, plus

(1) The net cost to the seller of all property added to the Water System after date of agreement and prior to the Closing Date less the book value of any property retired, as determined by accounting procedures approved by the Public Utilities Commission, plus

(2) The appraised value of the real property located on the northwesterly corner of Telephone Road and Wells Road, shown as Parcel G, Account 306, on Exhibit "A", as determined by a qualified real estate appraiser approved by seller and City. Such appraisal to be based on the assumption that the highest and best use is commercial and that the property can be annexed to the City for utility and sewer purposes.

(c) Closing Date. The "Closing Date" shall be within 90 days after the successful election or such earlier date as may be agreed upon by the parties, and provided that if the City's electorate has approved the issuance and sale of revenue bonds for acquisition of the Water System and if the City has used its best efforts to effect the sale of such bonds, and through no neglect or omission on its part has been unable to do so, then City may on the Closing Date, extend the Closing Date to a date not later than January 31, 1969. In the event that both the seller and the City wish to extend the Closing Date but to different dates the Closing Date shall be the end of the month which falls most nearly at the middle of the time period between the dates selected by the parties. The City shall give seller at least 12

days notice prior to any extension of the Closing Date.

(d) Closing. The "Closing" is the ceremony on the Closing Date, at which all actions provided herein then to occur will be performed. The Closing will take place at 10:00 o'clock A.M., Pacific Standard Time, at City Hall of City, 625 East Santa Clara Street, Ventura, California.

(e) Main Extension Agreements. The "Main Extension Agreements" are the agreements entered into by the seller under which the seller is liable for refunds of advances for construction and which are referred to in Section 2.06, hereof.

2.06 - Main Extension Agreements - Disposition.

The City shall not be responsible for or liable in any way as to seller's obligations under any main extension agreements, customer's deposits or agreements with respect thereto, or any similar arrangements, except as set forth in Exhibit "A", herein, it being understood that seller is and shall remain responsible therefor. Seller agrees to carry out, or to arrange for the carrying out of all such obligations. The City will, upon request of seller, advise seller as to water delivered, billings made, or such other comparable information as seller shall require in carrying out such obligations. Seller shall, at or prior to the Closing Date, provide the City with a list of all such arrangements with appropriate names and locations.

2.07 - Guarantee Deposits.

The seller may hold certain so-called guarantee deposits made by customers to establish credit. If the sale to the City of the Water System as herein contemplated is con-

summed, the seller shall repay any such deposits to its customers entitled thereto in accordance with the understanding between the seller and said customers pursuant to which such deposits were made. The seller shall hold the City harmless from and against any and all liability and obligation with respect to any such deposits or any such repayment thereof.

2.08 - Filing of Notice of Intended Sale.

Not later than eleven days before the Closing Date, seller shall record the Notice of Intended Sale required by Division 6 of the Commercial Code of the State of California, and not later than six days prior thereto shall cause the same to be appropriately published.

III.

COVENANTS OF THE SELLER

3.01 - To Sell Water System.

The seller promises to sell the Water System to the City on the Closing Date.

3.02 - Title Matters.

(a) At his own cost, seller shall order from and prior to the Closing Date shall furnish City with preliminary title reports issued by the Title Insurance and Trust Company, Ventura, California, on the title to the parcels of real property set forth in Exhibit "A", to be sold hereunder.

(b) The seller promises to provide to the City a policy of title insurance in the form of the CLTA Standard Form Owner's Policy with aggregate liability in the amount of the purchase price allocated to land and the

appraised value of the property at Telephone Road and Wells Road, showing title to the land described under the "Fee" and "Title Easements" in Exhibit "A" vested in City, subject to approved exceptions shown on the preliminary title report.

(c) Title to all parts of the Water System other than those parts for which title insurance is to be provided pursuant to the foregoing subsection 3.02(b) shall not be warranted or guaranteed by the seller, but the seller shall quitclaim all of its right, title and interest in and to such parts to the City.

3.03 - To Pay Revenue Stamp Taxes.

The seller promises to pay all revenue stamp taxes imposed upon the sale of the Water System.

3.04 - To Pay All Expenses and Taxes Accruing Prior to Closing Date.

All ad valorem taxes with respect to the said Water System, whether prepaid or whether constituting a lien payable against it at the Closing Date, shall be cancelled or refunded as the case may be to the extent permitted by Section 4986 and 5096 to 5096.7 of the California Revenue and Taxation Code, all other such taxes not so cancelled or refunded shall be prorated between seller and City as of 12:01 o'clock A.M. on the Closing Date. It is specifically agreed that City shall not assume and shall not in any manner be responsible for any liability of seller for any income taxes, any assessments, interest, penalties or other charges relating to such taxes, or for any other taxes or charges levied or imposed by any federal, state or local government except as herein expressly provided.

3.05 - To Maintain the Water System.

The seller promises that after the date hereof and prior to the Closing Date, the seller shall continue its usual upkeep, maintenance and repair of the Water System and any and all expense incurred by the seller in so doing shall be borne by the seller.

3.06 - To Submit Certain Water System Additions for Approval.

The seller promises that after the date of this Agreement and before the Closing Date, it will submit to the City for approval any capital expenditure in excess of \$1,000.00 before incurring the same or incurring obligations therefor, for any proposed addition, betterment or extension to the Water System for which the City is obligated to pay any increase in the Purchase Price. No such approval shall be required for any other expenditures.

3.07 - Further Assurance.

The seller promises to deliver to the City on the Closing Date all deeds, bills of sale, assignments and other documents required to effectuate transfer of title of the Water System to the City in accordance with this Agreement. As and when from time to time requested by City, but not later than five years after the Closing Date, or date of dissolution of seller, whichever is earlier, and without further consideration, seller at seller's expense, will execute and deliver such further instruments of conveyance and transfer and will take such other action as may be necessary in order to more effectively convey and transfer any and all of the properties and assets comprising said Water System. Nothing herein shall be deemed or construed as preventing seller from dissolving.

3.08 - Further Representations.

Seller further represents, warrants and agrees:

(a) Organization and Standing of Seller. Seller is a corporation duly organized and existing and in good standing under the laws of the State of California, with full corporate power to carry on the business of operating said Water System.

(b) Seller's Authority. The execution of this Agreement by seller and its delivery to the City have been duly authorized by the seller's Board of Directors. The execution of this Agreement and the sale of seller's properties and assets pursuant to it will be duly approved by the holders of a majority of the seller's voting stock within 30 days hereof, and evidence thereof shall be furnished to City within 5 days after such approval. No further corporate action or further action by or filing with any governmental authority (except for the order of the Public Utilities Commission mentioned in Section 5.02(c), hereof) will be necessary for the valid execution or delivery of this Agreement by seller or for the transfer to the City of said Water System. Neither such execution and delivery nor the performance of this Agreement on the part of seller will result in any breach of any term or provision of, or constitute a default under, seller's Articles of Incorporation or By-Laws or any indenture, mortgage, deed of trust, agreement, instrument, judgment, decree, statute or governmental regulation to which seller is a party or which is applicable to seller.

(c) Seller's Title to Properties to be Conveyed.

(1) Seller has good and marketable title to the properties and assets set forth in Exhibit "A",

subject to matter or exceptions, if any, set forth therein, subject to provisions of Section 3.02(c) and to approved exceptions set forth in said preliminary title report, and on the Closing Date hereinafter referred to will have and will transfer to the City good and marketable title to such properties (except such of said properties as may be consumed by use and replaced by substantially equivalent properties or disposed of in the ordinary course of business) free and clear of all liens, charges, mortgages, encumbrances, claims or equities of any kind whatsoever, except as stated in said Exhibit "A", Section 3.02(c) and said preliminary title report. In the event of involuntary encumbrances, the provisions of Section 5.02(g) shall be the measure of damages.

(2) Seller shall quitclaim its entire right, title and interest in and to all properties being transferred hereunder which are not set forth on Exhibit "A" and represents that (i) seller has been in possession of said properties under claim of right and except for the matters set forth in Exhibit "A" and has no knowledge or notice that such claim is disputed; (ii) seller has not heretofore conveyed any interest in said properties which in its opinion would materially interfere with seller's or City's right to the use of or possession of said properties in the conduct of its business; and (iii) seller does not know of any liens, charges, encumbrances, claims or equities whatsoever upon or in said properties which would materially interfere with the use

thereof except for the matters set forth on said Exhibit "A".

(3) The City shall assume no obligations or liabilities with respect to said properties except such as are specifically hereunder provided to be assumed by City.

(d) No Litigation. There is no suit, action or legal, administrative, arbitration or other proceeding pending, or to the knowledge of seller any existing claim against seller which affects said Water System or the sale thereof hereunder. In the event any new proceedings shall be commenced or, to seller's knowledge, a new claim is made with respect to seller or any part of said Water System, seller shall promptly upon gaining notice or knowledge thereof mail notice thereof to the City at the address set forth in this Agreement.

(e) Sales and Use Tax. Seller is not engaged in any business or activities in which any sales or use tax is payable under the California Sales and Use Tax law and does not hold and is not required to hold a seller's permit under said law; and the sale of the properties to the City contemplated by this Agreement, will be, if consummated, an occasional or casual sale within the meaning of that law.

Should a California sales tax be assessed with respect to this transaction, it is understood and agreed that the amount thereof will be paid one-half by the City and one-half by the seller. Either party shall, without expense to the other, have the right to contest and recover any such tax if it wishes, and the other party agrees to cooperate in any way necessary to accom-

plish this purpose.

Provided, however, that any sales tax collectible on motor vehicles shall be paid by the City.

(f) Agreement Not to Sell Assets. No part of said water works in excess of \$500.00 and no water rights and easements will be voluntarily sold, transferred or encumbered by seller without the prior written consent of City.

(g) Access to Records, Documents. As and when from time to time requested by City, whether before or after the date of closing, seller will give to the City and its counsel, accountants and other representatives full access, in such manner as does not interfere with the operation of seller's business during normal business hours, to all the properties, contracts, documents, maps and records of seller which in any way pertain to said Water System and customer accounts, and will furnish City all such documents and copies of documents and records and information with respect to said Water System, including, without limitation, copies of seller's corporate minutes, material to this sale, as City may from time to time reasonably request.

IV.

COVENANTS OF THE CITY

4.01 - To Pay Purchase Price.

The City promises to pay the Purchase Price to the seller on the Closing Date.

4.02 - To Provide Service to the Public.

✓ (a) Continuation of Service. City agrees that from and after the Closing Date it will serve water without unfair or unreasonable discrimination to all customers in the area wherein seller is certificated to provide water service by the California Public Utilities Commission whether such customers are located within or without the territorial boundaries of the City and will continue to so serve all of such customers.

(b) Rates. City agrees that for a period of 60 days following the Closing Date it will not alter the rates being charged any customer of the Water System, provided, however, the City may change such rates as may be deemed necessary in order to provide revenue sufficient to adequately secure payments on any revenue bonds issued. City reserves the right to alter said rates in its best judgment at any time subsequent to the expiration of said 60-day period.

4.03 - Seller's Accounts Receivable and Unbilled Charges.

Billed Accounts. All pre-payments deposited with seller for water service (other than deposits to establish credit provided for in Section 2.07 hereof) subsequent to the Closing Date shall be paid over by the seller to the City at the time of such transfer and City shall assume the seller's liability as to all such pre-payments so paid over to it insofar as such pre-payments cover service rendered after the Closing Date.

City agrees to use its best efforts to collect seller's customer's accounts receivable billed by seller and unbilled charges for water served prior to the Closing Date. The City need not make any effort to collect accounts more

than six months outstanding and if collected, shall become the property of the City. In using its best efforts to collect charges hereunder, City agrees to suspend service to those customers whose accounts remain unpaid for more than 45 days. The amounts collected hereunder shall be remitted to seller, less 6% thereof to be retained by the City for its expenses of collection.

4.04 - Best Efforts.

City covenants to use its best efforts, to the extent permitted by law, to secure:

(a) Favorable action upon the proposition to be submitted to the electorate of City as described in Section 2.04.

(b) Advertise for sale of Water System revenue bonds no later than 60 days after the election referred to in Section 2.04.

V.

CONDITIONS

5.01 - To Seller's Sale.

The obligations of the seller pursuant to Sections 3.01, 3.02, 3.03, and 3.04 are subject to the conditions precedent that the seller shall receive on the Closing Date an opinion by the City Attorney to the effect that City can lawfully acquire and operate the Water System upon the terms and conditions and for the consideration provided in this Agreement. Seller's obligations are also dependent upon the authorization of the Public Utilities Commission as specified in Section 5.02(c) hereof.

5.02 - To City's Purchase.

The obligation of the City to purchase the Water System is subject to the conditions precedent that:

(a) There shall have been the affirmative vote required by law to authorize the issuance and sale of the Water System revenue bonds referred to in Section 2.04, and

(b) Revenue bonds referred to in Section 2.04 shall have been sold by the City. Provided, however, that this condition (b) shall be operative only if the City shall have used its best efforts to complete such sale within 90 days after the successful election thereon in an amount necessary to pay the Purchase Price. As part of such efforts, by way of illustration and not by way of limitation, the City shall have offered such bonds upon terms no less favorable to purchasers than the terms upon which comparable issues have been sold during the bond market condition prevailing when such offer is made by the City, and marketing or offering procedures and efforts customary for similar issues shall have been utilized, and provided further, that if no such comparable issues have been sold, the City will offer said bonds on reasonable terms as advised by Stone & Youngberg, financial consultants.

(c) Order of Public Utilities Commission. The Public Utilities Commission of the State of California shall have issued an order giving seller the authority to transfer its Water System to the City, relieving seller of its obligation to render public utility water service, and cancelling seller's filed tariffs, and said order shall not contain any conditions inconsistent with the pro-

visions of this agreement of sale. In the event that the said Commission conditions its order so that the Commission assumes jurisdiction to control any aspect of the operation of the Water System by the City, then City is not bound thereby and seller hereby stipulates that the Purchase Price recited herein is the fair market value for the purposes of condemnation of the Water System by the City.

Each of the parties agrees that there will be a diligent filing of a joint application with the Public Utilities Commission for the order contemplated by this subsection (c).

(d) Validating Proceedings. If deemed necessary for the bond opinion by bond counsel for the City, the parties shall cause their attorneys to institute and obtain a final judgment, each bearing its own costs and expense in a proceeding in a court of competent jurisdiction, adjudging and declaring this agreement and the corporate proceedings of seller in connection therewith to be valid and binding.

(e) Opinion of Bond Counsel. At the Closing Date, seller and City shall have received, at City's expense, from O'Melveny & Myers, attorneys, or such other attorney or attorneys acceptable to seller and City, an opinion or opinions, in form and substance satisfactory to City, that this Agreement is valid and that all proceedings required by law or by this Agreement to be taken by City on or prior to the Closing Date in connection with the transfer of said Water System have been duly and validly taken. Seller and City shall furnish to O'Melveny & Myers, or other attorney, or attorneys, such documents as

may be requested for the purpose of rendering such opinion or opinions.

(f) Loss or Destruction of Properties. Seller or the properties and assets to be sold hereunder shall not have suffered any material and substantial damage (whether or not the loss therefrom shall have been insured) by fire, flood, accident or other calamity.

(g) Involuntary Encumbrance. No part of said Water System having a value in excess of \$5,000.00 shall have been sold, transferred or encumbered involuntarily, and in the event there has been such an involuntary sale, transfer or encumbrance of said Water System in an amount less than \$5,000.00, the purchase price to be paid by City to seller shall be reduced by the amount of such sale, transfer or encumbrance, plus 40% of such amount.

(h) Seller's Representations and Warranties True at Closing. All representations and warranties by seller which are contained in this Agreement shall be true on and as of the Closing Date as though said representations and warranties were made at and as of such time, and a certificate to that effect, dated not more than five days prior to the Closing Date signed by the president or other officer of the seller shall be delivered to the City.

VI.

MISCELLANEOUS AND PROCEDURAL

6.01 - Completion of Purchase of Land from Alta Mutual Water Company. Purchase of Water Main.

(a) The Purchase Price shall be reduced by the amount of \$34,084.00 if the City is unable to purchase the

parcel of land (the westerly 100 feet of Lots 14, 15, and 16 of Block 22, Township of Saticoy) on which the General Office building of the seller now exists at 1164 Welis Road at an appraised value to be determined by an appraiser approved by City and Alta Mutual Water Company. City agrees to purchase such parcel subject to a covenant not to drill a water well thereon. In the event the City cannot purchase the parcel, said General Office building will remain the property of seller.

(b) City shall acquire from Alta Mutual approximately 1,320 feet of 14-inch asbestos cement Class 150 water main located in North Kimball Road southerly of Foothill Road which was installed in July 1963. The purchase price shall be \$12,054.34.

6.02 - Interim Service.

Seller agrees to serve water to existing and future City customers at its usual rates from and after the execution of this Agreement and until the Closing Date, provided that seller shall not be obligated to make any capital expenditure exceeding \$1,000 to provide such service. Interim service to any or all customers served through City facilities regardless of when service commenced may be terminated by seller after 120 days notice if this agreement is terminated for any reason.

6.03 - Notices and Demands.

All notices, demands or other writing in this Agreement provided to be given or made or sent or which may be given or made or sent by the parties hereto shall be deemed to have been given or made or sent when made in writing and

deposited in the United States mail addressed as follows:

To Seller: 1164 Wells Road
Saticoy, California 93003
Attention: Ernest Nichols

To City: P. O. Box 99
Ventura, California 93001
Attention: City Manager

The address to which any notice, demand or other writing may be given or made or sent to any party may be changed upon written notice given by such party as above provided.

6.04 - Counterparts.

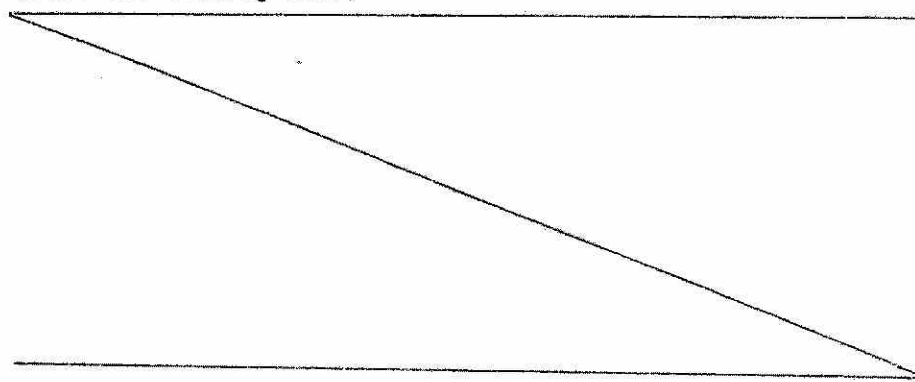
This Agreement may be executed in a number of counterparts all of which shall together constitute one Agreement.

6.05 - Continuation of Covenants.

All covenants, agreements, representations and warranties made herein shall survive the execution of this Agreement, and the execution and delivery of all documents delivered pursuant thereto.

6.06 - Release of Liability on Closing.

Except for the obligations contained in this agreement, the reciprocal obligations of the parties hereto shall cease after the Closing Date.



IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by the persons thereunto duly authorized the day and year first above written.

CITY OF SAN BUENAVENTURA

By Charles W. Rein
City Manager

ATTEST:
[Signature]
City Controller and Ex-Officio
City Clerk of said City

APPROVED AS TO FORM

CA Carlson
City Attorney

SATICOY WATER COMPANY

By Ernest Yacht
President

By Ed Toomey
Secretary

ATTEST:
Ed Toomey
Secretary

SATICOY WATER COMPANY
WATER SYSTEM

Exhibit "A"

All of the real property, facilities and property of whatever kind or character owned by Saticoy Water Company and known as the "Saticoy Water Company Water System" used or useful in obtaining, producing, conducting, storing, treating, and distributing water within the entire area served by said water system.

Such facilities and property shall include, but not be limited to the following:

Pipes, and pipelines, valves, tanks, pumps and pumping equipment, motors, service connections, meters and meter testing equipment, hydrants, aqueducts, flumes, water treatment equipment, power operated equipment, transportation equipment, tools, shop and garage equipment, materials and supplies.

The fee title to all property owned in fee by Saticoy Water Company, and other real property interests owned in other than fee by said Company, together with all right, title, and interest of Company in real property, office buildings, structures, wells, reservoirs, and easements, particularly the fee title in the following: (Full legal description to be attached as Exhibit "1" hereto upon receipt of preliminary title report)

Account 306 - Land		Approximate
<u>Parcel</u>	<u>Location</u>	<u>Area, Acres</u>
A	Well site, Grand Avenue and Ann Street, Montalvo	0.0138
B	Well and tank site, 1st Street, E/O Grand Avenue, Montalvo	0.3197
C	Nob Hill Tank Site, N/O 1192 Colina Vista, Ondulando area	0.2755

Exhibit "A"

<u>Parcel</u>	<u>Location</u>	<u>Approximate Area, Acres</u>
D	Ondulando Tank Site, 1162 Colina Vista, Ondulando area	0.5268
E	Sexton tank site, Foothill Road at Kimball	0.9513
F	Corbett Tank Site, Foothill Road 350 feet east of Kimball	1.5577
G	Saticoy Yard and Well Site, Telephone and Wells Roads	1.0028

Easements: (Full legal description to be attached as Exhibit "2" hereto upon receipt of preliminary title report)

EXCEPTIONS AND SPECIAL CIRCUMSTANCES:

1. Existing special agreements whereby Alta Mutual Water Company is permitted to serve irrigation water through Saticoy lines without payment for the use thereof.

a. KIMBALL-HAILS. There is an existing contract between E. C. Kimball, Charlotte K. Hails, and the Saticoy Water Company dated February 1, 1962, whereby Kimball and Hails contributed \$17,805.80 toward the construction of the 24-inch pipeline by Saticoy and Saticoy agreed to provide a certain capacity for service of irrigation water and some domestic water by the Alta Mutual Water Company. Service by Alta Mutual will cease and Kimball-Hails will obtain a pro-rata refund (less depreciation) upon the urbanization of the subject property. It is understood that the City will continue to permit service by Alta Mutual through City's facilities and in accordance with said contract and agrees to assume the contract to refund. The net book value of the Water System will be adjusted to reflect the rights of Kimball-Hails in the 24-inch line.

b. ERNEST NICHOLS PROPERTY. There is an existing

contract between the Saticoy Water Company and Alta Mutual Water Company, dated November 9, 1964, wherein Saticoy and Alta agree to use each other's facilities to serve irrigation water to the Ernest Nichols property comprising 50 acres of land on the south side of Telegraph Road across from Kimball Road. It is understood that the City will continue to permit Alta Mutual to serve irrigation water to the Nichols property through City's facilities and in accordance with that agreement until such time as the irrigation service is terminated.

c. INEZ BEAN PROPERTY (OXNARD CELERY DISTRIBUTORS). There is an existing arrangement whereby Alta Mutual serves irrigation water to the former Inez Bean property located approximately 3/4 mile west of the intersection of Saticoy Avenue and Telegraph Road. It is understood that City will continue to permit Alta Mutual to serve irrigation water through City's facilities to this property until such time as the property is developed for non-agricultural uses.

d. WILLIAMS PROPERTY. There is an existing arrangement whereby Alta Mutual serves irrigation water to the Williams property near the intersection of Telegraph Road and Kimball Road. It is understood that City will continue to permit Alta Mutual to serve irrigation water through City's facilities to this property until such time as the property is developed for non-agricultural uses.

e. EFFIE LOU BURNHAM PROPERTY. There is an existing oral arrangement between Effie Lou Burnham, Alta Mutual and Saticoy Water Company whereby Alta Mutual serves irrigation water to the Burnham property at Foothill and

Victoria through the 6" Saticoy-owned main located on the common boundary between the Burnham property and Ondulando Estates. It is understood that the City will continue to permit Alta Mutual to serve irrigation water to the Burnham property through City's facilities until such time as the irrigation service is terminated.

2. Existing special arrangements whereby Alta Mutual Water Company was permitted to serve domestic water through Saticoy lines without payment for the use thereof.

a. FOOTHILL ROAD, EAST OF WELLS ROAD. There is an existing arrangement whereby Alta Mutual serves some of its customers and members with domestic water from a Saticoy line running along Foothill Road easterly of Wells Road. These customers and their addresses are as follows:

<u>Alta Meters on Foothill Road</u> <u>Served by Saticoy Water Company</u>			
<u>Name</u>	<u>No.</u>	<u>Location</u>	<u>Size of Meter</u>
Louise H. Cummings		Foothill Road	1½"
Ed Orr	11246	Foothill Road	1½"
John Pinkerton	10681	Foothill Road	1"
B. L. Hawley	11477	Foothill Road	5/8"
B. L. Hawley	11477	Foothill Road	1"
E. C. Bernhardt	11431	Foothill Road	5/8"
H. R. Mangan	11265	Foothill Road	1"

It is understood that City will continue to permit Alta Mutual to serve these customers through this line.

3. Main Extension Agreements to Serve Individuals.
There are existing agreements with certain individuals whereby Saticoy serves customers from various saticoy lines. Each agreement provides for certain rebates under P.U.C. rules if certain developments take place within ten years. The names and addresses of said individuals are listed below:

<u>Date of Agreement</u>	<u>Name</u>	<u>Liability</u>
1-23-59	Victorian Park	\$ 409.95
12-20-60	C. E. Held	71.71
3-22-61	D. W. Fether	299.87
8-8-61	Edwin Duval	176.41
4-1-66	Ventura County Crippled Children's Society	1,499.38
4-1-66	Sacred Heart Church	936.72
5-3-68	Church of the Foothills	<u>2,409.42 (Est.)</u>
		<u>\$5,803.46</u>

City will assume the obligation to discharge the promised rebates in accordance with said agreements.

4. SPECIAL CONDITION - ALTA MUTUAL WATER COMPANY. It is understood that agreements regarding the service of water by Alta Mutual Water Company through City facilities shall be terminated in the event that Alta Mutual or its assignee, in whole or in part, is no longer providing water pursuant to said agreements. Provided, however, that said agreements shall terminate if Alta Mutual voluntarily becomes a public utility purveying domestic water, or if its rights and obligations under such agreement are assigned to or are succeeded to by a public utility.

5. METER. The Fujii property located on Foothill Road now owns a meter and service serving said property. It is understood that Saticoy will obtain this meter and service and that the reasonable cost thereof shall be added to the selling price.

6. SATICOY COUNTRY CLUB WATER SYSTEM. Saticoy Water Company now has contractual rights for acquisition of facilities now used to serve the new Saticoy Country Club located on the south side of the Santa Clara River. Included is Saticoy's right and obligation to serve adjacent area as it develops. It is understood that City will succeed to the rights

- 6 -

and obligations of seller with respect to these facilities. No value is assigned to these rights and they shall not be included in a computation of the net book value of the Water System for the purpose of determining Purchase Price.

Exhibit "A"

Appendix B

City of Ventura Policy, Water Connections Outside of City Limits

Sec. 22.110.055. Water connections outside city limits.

A. The City will provide water service to land uses on property located outside of the incorporated territory of the City meeting any one of the following four criteria:

1. The use is a single family dwelling unit or a second unit built or to be built on a lot of record in existence on the date an application for water service is filed with the City, provided that the use can be supplied with City water service without extending the City's water distribution mains.
2. The use is a low water consuming commercial or industrial use, provided that:
 - a. The use meets the zoning and land use requirements of the County of Ventura;
 - b. The use does not require a land division of five or more parcels regardless of whether the land division is accomplished by a subdivision map or parcel map;
 - c. The use does not conflict with the City's land use, open space, phasing, hillside, flood plain, or other related land use policies, and does not include irrigated agricultural cultivation; and
 - d. The use does not require extending the City's water distribution mains and does not require a water meter larger than three-fourths inch.
3. The use is any residential, commercial or industrial use located on property within the North Avenue Community, as defined and delineated in the City's Comprehensive Plan, provided that:
 - a. The use meets the zoning and land use requirements of the County of Ventura; and
 - b. The use meets all appropriate policies of the City's Comprehensive Plan, including RGMP policies, zoning and subdivision requirements.
4. The use is any residential, commercial or industrial use located on property within the boundaries of the Saticoy Country Club area as described and delineated in recorded tract maps 1619, 1900, 4061 and 4236.

B. Water service will to be provided to a land use located on property outside of the incorporated territory of the City that meets one of the criteria set forth in subpart A. of this section, only if the owner of such property also complies with all of the following conditions:

1. Constructs and installs, or causes the construction and installation of any public improvements and facilities necessary to provide water service to the property;
2. Complies with the provision of Section 912 of the Uniform Plumbing Code relating to water saving devices;
3. Enters into an agreement recorded against the property that:
 - a. Sets forth the terms and conditions under which water service is being provided to the property; and
 - b. Includes the property owner's waiver of any right to protest annexation of the property to the incorporated territory of the City, except in those cases where the property is located within the boundaries of the Saticoy Country Club;
4. Reimburses the City for all costs and expenses, including City staff costs, incurred in connection with proceedings before the Ventura Local Agency Formation Commission that are required to obtain Commission approval to the extension of water service to the property; and
5. Also reimburses the City for all costs and expenses, including City staff costs, incurred in connection with proceedings before the Ventura Local Agency Formation Commission that are required to annex the property to the incorporated territory of the City in those cases where the property is contiguous to the incorporated boundaries of the City.

Appendix C

City of Ventura, 2014 Drinking Water Consumer Confidence Report

2014 Drinking Water Consumer Confidence Report



Trusted life source for generations

Featuring Calendar Year 2013 Water Quality Results

Dear Valued Ventura Water Customer,

We are pleased to present important information to you about Ventura's drinking water quality for 2014. This report contains 2013 water quality testing results, explanation of our 100% local water sources, and specific information for sensitive persons. Ventura Water, a member of the City's family of services, has been providing essential around-the-clock water services since 1923 to keep our community strong and vital. On behalf of the entire staff, we thank you for taking the time to read this report that explains where your water comes from, how we treat it and what you can do to safeguard our local water sources. We proudly look forward to serving you, your family, and business today as well as future generations to come.



Sincerely,

Shana Epstein, General Manager

Our Continuing Commitment to You

Ventura Water's trained, State-licensed water professionals are committed to:

- High-quality drinking water meeting or exceeding all regulatory standards.
- A proactively maintained and reliable water system.
- A customer-focused organization that anticipates future community needs.

We know that our customers value their tap water. We appreciate your support and investment that is critical to achieving our service, operations and capital improvement goals.

For More Information

If you would like more information regarding Ventura's water quality, facility improvements, or studies, please contact Omar Castro, Water Utility Manager at (805) 652-4581. This Drinking Water Consumer Confidence Report is available in Spanish and on the City's website at www.cityofventura.net/water/ccr.

You are also invited to express your opinions at City Council meetings held most Monday evenings in the Council Chambers at Ventura City Hall, 501 Poli Street. Please visit the City Council link at www.cityofventura.net for a complete schedule.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien. Para más información o para obtener copias del informe de agua en español llame (805) 677-6500.

Water Quality Report Highlights

This year's Drinking Water Consumer Confidence Report shows:

- Ventura's drinking water quality met all State and Federal regulatory standards.
- Our staff conducts many routine tests beyond those presented in this report to monitor and optimize water quality.
- We actively monitor the quality of our water supplies and collaborate with others to maintain and improve them.
- Ventura Water's drinking water treatment systems employ multiple barriers to protect our water from disease-causing microorganisms and other constituents.
- Vulnerable populations should pursue additional information about their drinking water because no municipal or bottled drinking water is 100% "pure".



Ventura City Council

Cheryl Heitmann, Mayor
Erik Nasarenko, Deputy Mayor
Neal Andrews, Councilmember
James L. Monahan, Councilmember
Carl E. Morehouse, Councilmember
Mike Tracy, Councilmember
Christy Weir, Councilmember

Trusted life source for generations

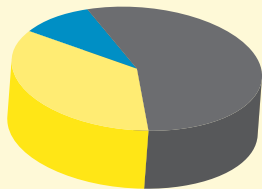
Ventura's Water Sources & Treatment



	Ventura River	Casitas	Groundwater Wells
Supply Type	Surface Water & Groundwater	Surface Water	Groundwater
Fraction of Total Supply	10-30%	35%	35-55%
Location	At Foster Park	Lake Casitas	Victoria & Saticoy
General Service Area	West & Midtown	West	Midtown & East

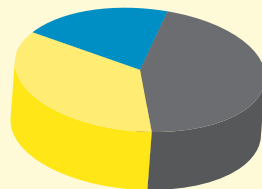
Ventura is one of the largest cities in California that relies exclusively on local water supplies. We manage our water portfolio of three distinct sources based on the flow of our Ventura River supply. When more river water is available, less groundwater is used and during dryer conditions, groundwater or Lake Casitas supplies a greater percentage of your drinking water (based on your service area).

Dry Year



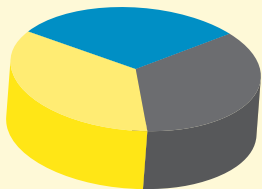
■ Ventura River	10%
■ Groundwater Wells	55%
■ Lake Casitas	35%

Normal Year



■ Ventura River	20%
■ Groundwater Wells	45%
■ Lake Casitas	35%

Wet Year



■ Ventura River	30%
■ Groundwater Wells	35%
■ Lake Casitas	35%

Ventura River

Ventura's oldest water supply is provided from the Ventura River at Foster Park, pumped from four shallow wells and a subsurface collector. This water drains from a 51,000-acre lower watershed in the Ojai and Ventura River Valleys that includes the tributaries of the San Antonio and the Coyote Creeks. In 2007, the Avenue Water Treatment Facility was modernized to treat this water source with membrane ultrafiltration (UF). An effective and reliable process, thousands of UF hollow fiber filtration membranes create a physical barrier to remove pathogens and particles larger than the 0.02 micron pore size, including bacteria, viruses, Giardia, and Cryptosporidium. Chloramines are added for disinfection prior to delivery into the water distribution system as well as a corrosion inhibitor to help protect the plumbing in your home and the distribution pipes.



Casitas

Treated water is purchased from the Casitas Municipal Water District (Casitas), the operator of Lake Casitas. Lake Casitas' water drains from the upper watershed and is federally protected to limit contamination of the lake. Casitas treats the water from Lake Casitas with direct media filtration and with chloramines for disinfection prior to delivery into the City's distribution system. Ventura Water works closely with Casitas through a purchase agreement of approximately 5,000 acre-feet (about 1.6 billion gallons) per year to supply in-district demand.



Groundwater Wells

Water is also pumped from deep groundwater wells located in the east side near Victoria Avenue and in Saticoy. Water quality from the aquifers in the Oxnard Plain, Mound, and Santa Paula groundwater basins are similar. Compared to water from the Ventura River or Lake Casitas, this groundwater contains about two times the amount of total dissolved solids (TDS) or minerals (hardness). The groundwater sources are treated at either the Bailey or Saticoy Plants with prechlorination and direct media filtration to remove iron, manganese, and turbidity particles, and disinfected with chloramines. A corrosion inhibitor is also added to protect the plumbing in your home and the distribution pipes.



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Important Water Treatment Information



Ventura Water and Casitas use chloramines -- chemicals that contain chlorine and ammonia -- for continuous disinfection of the drinking water. Chloramines are preferred because of their ability to provide disinfection over a longer period of time, and improve taste and odor as compared to using chlorine alone. Chloramines have been proven to effectively kill microorganisms while producing lower levels of disinfection byproducts such as trihalomethanes (THMs) and haloacetic acids (HAAs), which are potentially harmful constituents. Drinking water containing these byproducts in excess of the regulated maximum contaminant level (MCL) may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of cancer. Starting in 2012, large water agencies were required to meet more stringent standards for these byproducts by maintaining and reporting levels at all site specific locations instead of averaging test results system wide. Ventura Water continues to successfully meet these requirements through effective management of water treatment, reservoir and distribution system operations.

Water treatment plants are continuously monitored for specific water constituents by special automated instrumentation to ensure that the process is always producing water of high quality. Turbidity is a measure of the cloudiness of the water and both Ventura Water and Casitas measure turbidity every 15 minutes as a good indicator of the effectiveness of the filtration processes, especially for surface waters. High turbidity can hinder the effectiveness of disinfectants and may indicate the presence of contaminants.

The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agriculture and livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals that may be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Pesticides and herbicides from a variety of sources, such as agriculture, urban stormwater runoff and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems.

- Radioactive contaminants that can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the California Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Water System



Since the early days of the Mission, Ventura's water system infrastructure has continually evolved, with major pipeline expansion in the 1950s and 60s with the purchase of the Saticoy and Mound Water Companies. Today, with three different water supplies, the inter-related infrastructure system is categorized by the California Department of Public Health as a "grade 5," indicating the highest degree of treatment and distribution complexity.

Booster Pump Stations	23
Storage Reservoirs	31
Valves	16,000
Meters	32,000
Fire Hydrants	3,700
Groundwater Wells	11
Lake Casitas Connections	2
Water Treatment Facilities	3
Pressure Zones	14



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Water Quality Monitoring



Ventura owns and operates a full-scale, State-certified laboratory and also uses outside State-certified labs to monitor water quality. Ventura Water submits monthly, quarterly and annual reports to the State for review that summarize treatment and distribution operations and drinking water quality. Water quality constituents that were detected by the laboratories during 2013 are listed on the Water Quality Summary Table. As reflected, our drinking water met all State and Federal water quality requirements.

The State regularly inspects the City's water system and reported in April 2013 that the City's water sources, facilities, and operations are capable of producing safe and reliable water quality. In 2011, Ventura Water met the triennial lead and copper corrosion monitoring requirements by sampling 50 locations to test consumers' tap water. The test results, provided in the Water Quality Summary Table, indicated that no additional corrosion control treatment is required. The next testing will be conducted in summer 2014.



Early detection of threats from potential contaminants is important to sustaining a healthy water supply. The five-year update to the Sanitary Survey of the Lower Ventura River Watershed was completed in 2010 (www.cityofventura.net/water/drinking). The purpose of the survey is to identify potential sources of water contamination to reduce risks to the water supply. While no

new issues were identified, the study recommends continued collaboration with stakeholders to protect the watershed. In addition, the City has voluntarily tested for specific contaminants along the Ventura River and San Antonio Creek since 2002 to aid in early identification of emerging water quality concerns.

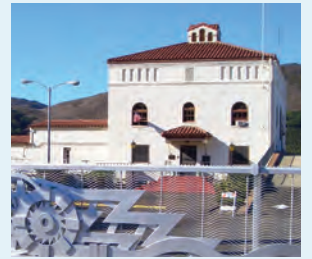
The 1996 Safe Drinking Water Act amendments require the Environmental Protection Agency (EPA) to issue a new list of no more than 30 unregulated contaminants to be monitored by public water systems, such as Ventura Water, once every five years. The first Unregulated Contaminant Monitoring Rule (UCMR 1) was published in 1999, the second (UCMR 2) in 2007, and the third (UCMR 3) in 2012 (<http://water.epa.gov/lawsregs/rulesregs/sdwa/ucmr/>). In accordance, Ventura Water conducted assessment monitoring of 24 unregulated contaminants for UCMR 2 and reported the results in 2010. Ventura Water will conduct testing for UCMR 3 during a 12-month period before December 2015.

The UCMR program benefits the environment and public health by providing EPA and other interested parties with scientifically valid data on the occurrence of these contaminants in drinking water. EPA uses this data to develop regulatory decisions for emerging contaminants to protect public health.

Water Supply Status



For more than a century, the City has invested in its water sources and systems to maintain a stable water supply, recognizing the importance of clean water to the health of a thriving community. The current drought highlights the importance of working together to achieve our long-term goals. As detailed in the 2014 Comprehensive Water Resources Report (www.cityofventura.net/water/supply), our collective ability to find solutions to meet the following supply and quality challenges will be essential to our water future.



Climate Change and Drought

Continued years of drought and potential impacts of climate change will require more flexibility and resiliency planning.

Environmental

Due to concerns for the health of the Ventura River ecosystem, pumping restrictions are limiting how much water and what time of year this water supply is available. Also, as a major supplier of our water, environmental challenges facing Casitas could result in both supply restrictions and higher costs to Ventura Water.

Groundwater Supply

Water allocations from groundwater basins which are shared regionally are increasingly regulated and monitored. Our quantity is limited from groundwater sources, especially during the current drought conditions.

Groundwater Quality

Water from groundwater wells contains higher levels of dissolved solids, minerals and sulfur than Ventura's other water sources. While treated groundwater meets all health requirements, its mineralized content results in deposits on plumbing fixtures and less aesthetically pleasing water quality. A program to blend water sources to reduce these levels has been in operation while more permanent options are being studied. A Groundwater Treatment Study report was completed in March 2011 that included preliminary evaluations of treatment alternatives including lime-soda chemical precipitation, ion-exchange, and reverse osmosis (RO) membrane treatment processes at the Bailey and Saticoy Treatment Plans. The study concluded that RO treatment was the preferred alternative but that more evaluation was needed to select a disposal method for the concentrate that would be generated by this process. To determine if there is community support to improve the quality of this water supply, Ventura Water will be developing a public outreach strategy and program.

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Potential Concerns For Vulnerable Populations



Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).



If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Ventura Water is responsible for providing high quality drinking water, but cannot control the variety of materials used in residential or commercial property plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

Ventura Water and Casitas use chloramines for continuous disinfection of the drinking water and its presence requires additional precautions for some water uses. If a member of your household requires dialysis, you should contact your physician or dialysis service provider to assure proper protective equipment is used during the treatment. If you use tap water for fish or other aquatic animals that use gills for breathing, you need to test and be sure the chloramines are completely removed before use. Setting water in an open container for 24 hours prior to use will not remove all chloramines in the water. Your local pet store can provide information and products for the proper removal of chloramines.

Public Health Goals Reporting



As a water supplier, the City must evaluate its drinking water supply every three years with respect to Public Health Goals (PHG). The goals are advisory only and are not mandatory limits, but do require public notification. To fulfill this requirement, a public meeting was held in July 2013 to review the Triennial Public Health Goals Report (www.cityofventura.net/water/drinking). The next Triennial Public Health Goals Report is scheduled to be prepared and presented by July 2016.

Water Efficiency



Since our community relies 100% on local water sources, we live, work and play within the watersheds that supply us and our surrounding natural ecosystems with vital water resources. It is our collective responsibility to safeguard our water and use water efficiently in all ways, especially during dry conditions. Here are some quick tips (www.cityofventura.net/water/efficiency) to help you be a good water steward:

- Use lawn and garden fertilizers and pesticides sparingly – they contain hazardous chemicals that can reach your drinking water source.
- Always pick up after your pets – even in your own yard.
- Dispose of chemicals properly at a Household Hazardous Waste event (www.cityofventura.net/HHW).
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and early in the mornings to reduce evaporation.
- Fix leaking toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Take short showers and use a water-efficient showerhead. They are inexpensive, easy to install, and can save up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full to save up to 1,000 gallons a month.
- Teach your children about water conservation so that the next generation learns to use water wisely. Make it a family effort to reduce next month's water usage!

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Water Quality Terminology

The Water Quality Summary shows constituents measured in Ventura's water and reported to the State Department of Health Services, and in some cases the USEPA. Some of the terminology used is described below:

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary (health related) MCLs are set as close to the Public Health Goals (PHGs) or Maximum Contaminant Level Goals (MCLGs) as is economically and technologically feasible. Secondary (aesthetically related) MCLs are set to protect the odor, taste and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): The level of contaminant in drinking water below which there is no known or expected risk to one's health. MCLGs are set by the USEPA.

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to one's health. The California Environmental Protection Agency sets PHGs.

Maximum Residual Disinfectant Level (MRDL): The maximum level of a disinfectant added for water treatment that may not exceed at the customer's tap.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Primary Drinking Water Standard (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Secondary Drinking Water Standard (SDWS): MCLs for contaminants that affect taste, odor, or appearance of drinking water. Secondary contaminants are not based on health effects at MCL levels.

Regulatory Action Level (RAL): The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow.

Notification Level (NL): Notification levels are health-based levels established by CDPH for chemicals in drinking water that lack MCLs.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Footnotes

- 1 Process and source variations.
 - 2 Erosion of natural deposits.
 - 3 Erosion of natural deposits; runoff from orchards; glass and electronics production waste.
 - 4 Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.
 - 5 Discharge from refineries or manufacturers; erosion of natural deposits.
 - 6 Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits.
 - 7 Leaching from ore-processing sites, discharge from electronics and glass factories.
 - 8 Internal corrosion of household plumbing systems.
- (a) Average is maximum reading. Avenue Plant Surface Filtration (TT) = 95% of samples equal or below 0.1 NTU.
 - (b) Average is maximum reading. CMWD Direct Filtration (TT) = 100% of samples equal or below 0.2 NTU.
 - (c) Highest running average cannot exceed the MCL.
 - (d) Samples were taken at selected households on a first draw in August 2011.
 - (e) Monitoring completed in 2012.

Legend

ppm	Parts per million or milligrams per liter.
ppb	Parts per billion or micrograms per liter.
pCi/l	Picocuries per liter, a measure of radioactivity in water.
CMWD	Casitas Municipal Water District
UMHOS	Micro Ohms per Centimeter
<	Less than
TT	A required treatment technique intended to reduce the level of contaminant in drinking water
NA	Not applicable
ND	Not detectable
NS	No standard
NTU	Turbidity, a measure of the clarity or cloudiness of the water.

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Using Data Collected in 2013 Unless Noted

PRIMARY STANDARDS (PDWS)	Units	Maximum Level MCL	State Goal PHG (MCLG)	Ventura River Average	Ventura River Range	Ground Water Average	Ground Water Range	CMWD Average	CMWD Range	Major Sources of Contamination in Drinking Water (Footnotes)
Water Clarity Treated Turbidity	NTU	TT	NA	0.06(a)	.03 -.30	0.24	0.1 - 1.1	0.09(b)	0.09	1
Radioactive Contaminants (e) Gross Alpha particle activity	pCi/l	15	(0)	3.81	.39-10	7.2	4.34 - 9.35	ND	ND	2
Radium 226	pCi/l	5	0.05	0.1	ND-0.3	0.463	ND - 0.9	NA	NA	2
Uranium (c)	pCi/l	20	0.43	3.16	1.5 - 4.9	5.58	3.39 - 9.81	NA	NA	2
Inorganic Contaminants Fluoride	ppm	2	1	0.51	.48 -.54	0.55	.44 - .65	0.5	0.5	4
Selenium	ppb	50	50	ND	ND - 3	7.8	ND - 25	ND	ND	5
Nitrate (as Nitrogen)	ppm	10	10	0.87	.6 - 1.0	1.7	ND - 4.8	0.5	0.5	6
Thalium	ppb	2	0.1	ND	ND	ND	ND	NA	NA	7
Lead and Copper Samples	Units	RAL	PHG	Samples Collected	Above RAL	90th Percentile	Major Sources of Contamination in Drinking Water			
Lead	ppb	15	0.2	51(d)	0	1	8			
Copper	ppb	1300	300	51(d)	1	1054	8			
PRIMARY STANDARDS for Distribution System	Units	MCL (MRDL)	PHG (MCLG) (MRDLG)	Distribution System Average	Distribution System Range	Major Sources of Contamination in Drinking Water				
Disinfection Chloramine Residual	ppm	(MRDL) 4	(MRDLG) 4	(MRDL) 2.6	(MRDL) 2.36 - 2.80	Drinking water disinfectant added for treatment.				
Disinfection By Products Total Trihalomethanes	ppb	80	NA	55.8(c)	22 - 90	By-product of drinking water chlorination.				
Total Haloacetic Acids	ppb	60	NA	42.5(c)	13 - 56	By-product of drinking water chlorination.				
Microbiological Contaminant Samples		No more than								
Total Coliform Bacteria	NA	5%	0	0	0	Naturally present in the environment.				
Fecal Coliform Bacteria	NA	0	0	0	0	Human and animal fecal waste.				
SECONDARY STANDARDS	Units	Maximum Contaminant Level	Ventura River Average	Ventura River Range	Ground Water Average	Ground Water Range	CMWD Average	CMWD Range		
Aesthetic Standards Color	Color	15	ND	ND	5	ND-10	ND	ND		
Odor	Threshold	3	ND	ND	ND	ND	ND	ND		
Chloride	ppm	500	53	46 - 61	69	54-95	18	18		
Manganese	ppb	50	ND	ND	ND	ND-.15	ND	ND		
Iron	ppb	300	ND	ND	ND	ND - 760	ND	ND		
Total Dissolved Solids	ppm	1000	754	681-821	1296	969-1662	340	340		
Specific Conductance	umhos	1600	1038	939-1078	1699	1166-2000	547	547		
Sulfate	ppm	500	244	238-254	559	449-741	135	135		
Zinc	ppm	5	0.06	.06 - .08	0.16	.13 - .22	ND	ND		
Additional Constituents pH	pH units	NS	NS	7.6 - 7.9	7.3	7.1 - 7.5	7.3	7.3		
Hardness	ppm	NS	446	407-504	671	517-939	224	224		
Calcium	ppm	NS	124	114-138	182	132-244	52	52		
Magnesium	ppm	NS	29	28-30	49	42-59	22	22		
Corrosivity	ppb	Non Corrosive(+)	0.74	.63 - .94	0.41	.24 - .74	-0.4	-0.4		
Sodium	ppm	NS	51	48-54	140	101-235	52	52		
Phosphate	ppm	NS	ND	ND	0.07	ND-.17	ND	ND		
Potassium	ppm	NS	2.2	2.1-2.4	4.97	4.0 - 7.0	3	3		
Total Alkalinity	ppm	NS	241	227-262	265	250-293	120	120		

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California shower



Take five and no more because
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The official 2014
California sprinkler



Use more efficient watering systems because
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