

2013 Drinking Water Consumer Confidence Report



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Featuring Calendar Year 2012 Water Quality Results

Dear Valued Ventura Water Customer,



Each year we are pleased to present important information to you about Ventura's drinking water quality. This report contains 2012 water quality testing results, explanation of our 100% local water sources, progress of improvement projects to keep our water system reliable and healthy

as well as 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. We proudly look forward to serving you, your family, and business today as well as future generations tomorrow.

Sincerely,

Shana Epstein, General Manager

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/drinking. 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.

Ventura City Council

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

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.

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. However, our testing program violated a single monitoring procedure in May 2012. As our customers, you have a right to know what happened and what we did to correct the situation (see page 4).
- 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".



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 805/652-4500.

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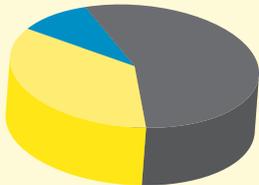
Ventura's Water Sources & Treatment



	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

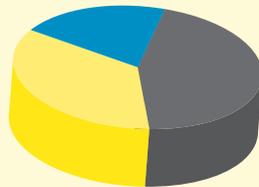
Ventura is one of the largest cities in California that relies exclusively on local water supplies. We manage our water portfolio of three distinct sources based on the flow of our Ventura River supply. When more river water is available, less groundwater is used and during dryer conditions, groundwater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

Dry Year



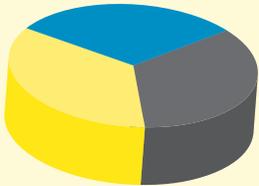
	Ventura River	10%
	Groundwater Wells	55%
	Lake Casitas	35%

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 minimum purchase agreement of 6,000 acre-feet (about 2 billion gallons) per year.



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. 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. In the first year, Ventura Water successfully met these new 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 State 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.

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. Our collective ability to find solutions to meet the following supply and quality challenges will be essential to our water future.

Climate

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 and may limit the quantity from these sources in the future.

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 Plants. 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 for higher rates to improve the quality of this water supply, Ventura Water will be conducting public education and surveys this year.

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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 2012 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 December 2010 that the City's water sources, facilities, and operations are capable of producing safe and reliable water quality. The next inspection is expected in 2013.

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.

Monitoring Violation Notice

Ventura Water's monitoring program violated a single procedure relating to the drinking water standards during the past year. While this was not an emergency issue, as our customer, you have the right to know what happened and what we did to correct the situation. We are required to monitor your drinking water for specific contaminants on a regular basis and those results indicate whether or not our drinking water meets health standards.

In May 2012, one water sample tested positive for Total Coliforms and as required, Ventura Water retested at the sample location and two additional sample locations within 24 hours as a follow-up action. However, Ventura Water failed to also test the groundwater source providing water to the sample location within the required 24 hours and therefore, cannot be sure of our drinking water quality at that time. The results of all retests and subsequent monitoring for Total Coliforms have been negative since this incident, indicating that your water continues to be safe for consumption.

To correct this situation, Ventura Water has retrained staff on the provisions requiring the testing of groundwater sources within 24 hours of a positive sample, created a new written sampling procedure, and revised our Coliform Action Plan accordingly.

While coliforms are predominantly harmless bacteria, we test for them because they can live in the same environment as harmful bacteria. Coliform positive results can occasionally occur due to operator or sampling error which is why follow-up testing is required within 24 hours to confirm whether further investigation is needed. If a water quality problem had been determined, customers would have notified and instructed by Ventura Water as directed by the California Department of Public Health in accordance with drinking water safety procedures.

While this notice requires no action from you, please share this information with all other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

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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.

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).

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 May 2011 to review the Triennial Public Health Goals Report (www.cityofventura.net/water/drinking). To align our reporting schedule, the next Triennial Public Health Goals Report is scheduled to be prepared and presented by July 2013.

Water Conservation



Improving water efficiency, without sacrificing convenience, is more cost effective than importing or creating new water supplies. This is why Ventura Water promotes water conservation as one way of meeting our need for water in the future. Now in the second year of our five-year Water Efficiency Plan (www.cityofventura.net/water/efficiency), consumer efforts continue to focus on managing landscape watering. Since 40-60% of our water is used outdoors, monitoring and upgrading irrigation systems and/or replacing grass with low or no water-use climate appropriate plants will prevent water waste and pollution and produce long-term water savings for our community.

Reducing water use will also help keep rates as low as possible. How? Water rates are set to generate enough revenue to meet the utility's expenses and are calculated, in part, on the amount of water projected to be used by customers. If customers use less water than projected, the utility does not earn enough revenue and rates may potentially need to rise to keep the utility financially stable. However, this rate scenario is much more cost effective in comparison to importing expensive water supplies or building desalination or other water treatment facilities. Rates to support these types of new supply costs would be significantly much higher and less sustainable over the long run.

Connect With Us



Customer Care 667-6500 myvtawater@cityofventura.net

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 twitter.com/venturawaterCA

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 [venturawater.org](http://www.venturawater.org)

Sign-up for *Pipeline*, our E-Newsletter at www.venturawater.net

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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.

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 2012 Unless Noted

PRIMARY STANDARDS (PDWS)		Units	Maximum Level MCL	State Goal PHG	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	0.07(a)	.02 - .07	0.24	0.1 - 0.4	0.16(b)	NA	1	
Radioactive Contaminants (e)												
Gross Alpha particle activity		pCi/l	15	NA	4.1	1.0- 7.3	8.7	2.9 - 22.2	0	0	2	
Radium 226		pCi/l	5	NA	0.13	ND - 0.3	0.26	.12 - .44	NA	NA	2	
Uranium (c)		pCi/l	20	0.5	2.4	1.8 - 8.9	6.3	3.4 - 13.3	NA	NA	2	
Inorganic Contaminants												
Fluoride		ppm	2	1	0.52	.49 - .65	0.53	.44 - .67	0.3	0.3	4	
Selenium		ppb	50	NA	ND	ND	8.8	ND - 15	NA	NA	5	
Nitrate (as Nitrogen)		ppm	10	10	.66	ND - 1.8	1.6	ND - 3.2	0.6	0.6	6	
Thalium		ppb	2	NA	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	4	4	2.48	2.28 - 2.71	Drinking water disinfectant added for treatment.					
Disinfection By Products												
Total Trihalomethanes		ppb	80	NA	52(c)	20 - 63	By-product of drinking water chlorination.					
Total Haloacetic Acids		ppb	60	NA	34(c)	16 - 43	By-product of drinking water chlorination.					
Microbiological Contaminant Samples												
Total Coliform Bacteria		NA	5%	0	0	1	Naturally present in the environment.					
Fecal Coliform Bacteria		NA	0	0	0	0	Human and animal fecal waste.					
SECONDARY STANDARDS		Units	Maximum Level MCL	Ventura River Average	Ventura River Range	Ground Water Average	Ground Water Range	CMWD Average	CMWD Range			
Aesthetic Standards	Color	Color	15	ND	ND - 5	5	ND - 9	ND	ND			
	Odor	Threshold	3	ND	ND	ND	ND	ND	ND			
	Chloride	ppm	500	44	39 - 47	68	54 - 85	17	17			
	Corrosivity	ppb	Non corrosive (+)		0.5	-1 - .9	0.47	.23 - .77	- 0.2	- 0.2		
	Iron (TT)	ppb	300	ND	ND	ND	ND - .1	ND	ND			
	Total dissolved solids	ppm	1000	659	525 - 713	1243	969 - 1458	320	320			
	Specific conductance	umhos	1600	913	780 - 977	1560	1166 - 1939	553	553			
	Sulfate	ppm	500	240	226 - 250	568	449 - 749	132	132			
Additional Constituents	pH	pH units	6.5 - 8.5	7.6	7.1 - 7.9	7.4	7.2 - 7.8	7.4	7.4			
	Hardness	ppm	NS	386	260 - 476	619	517 - 793	221	221			
	Calcium	ppm	NS	109	96 - 135	162	132 - 225	54	54			
	Magnesium	ppm	NS	30	28 - 34	52	43 - 63	21	21			
	Manganese (TT)	ppb	50	ND	ND	ND	ND - .15	ND	ND			
	Sodium	ppm	NS	47	42 - 51	134	101 - 184	24	24			
	Phosphate	ppm	NS	ND	ND - .13	0.1	ND - .15	ND	ND			
	Potassium	ppm	NS	2.1	1.9 - 2.3	4.8	4 - 6.1	3	3			
	Total Alkalinity	ppm	NS	231	208 - 258	269	235 - 294	120	120			

Water Infrastructure Investment Today Reliability for Tomorrow



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	

A Vital Investment



The City of Ventura and its residents own our community water system. In the last decade, over \$80 million has been invested to replace and upgrade aging pipelines, tanks and facilities. Capital renewal and improvement projects are funded 100% from the rates paid by customers and spent here at home, supporting our local economy and jobs. Capital projects are generally financed either by accumulated cash or monies raised by long-term revenue bonds, which have annual payments (similar to a mortgage) paid by the revenues generated by water rates. This financial strategy spreads capital costs over a long period of time, usually 30 years, so that customers today and tomorrow share in funding projects that benefit them.

The Cost of Service and Rate Design Study completed in March 2012 included financial planning for the next 10 years of capital improvements (www.cityofventura.net/water/resources). Future rate increases, in large part, will be driven by capital needs to keep Ventura's extensive water treatment and distribution system reliable and capable of meeting increasingly stringent water quality regulations.

10-Year Capital Renewal Plan



Projected to cost over \$120 million over the next decade, the capital program will focus on replacing aging pipelines and facilities and projects to improve water quality.

Water Quality

Two replacement groundwater wells, one that began construction this year, are expected to improve the quality of water delivered to our customers. In the near term, new pressure monitoring stations will be installed to collect system information to improve operations and overall reliability. A reverse osmosis membrane treatment process to improve groundwater quality is a significant proposed project scheduled in the later years of the plan. Customer outreach will be conducted this year to determine if there is support from the community for this project.

Pipelines

With an average age of 44 years old, about 25% of Ventura's water distribution pipes are made of older cast iron which is known to rust and become susceptible to breaking due to the iron material's interaction with certain types of soil. Last year, over a mile of waterline was replaced in the Market Street area and the second phase of Fairview Drive at a total estimated cost of \$3.6 million. Several additional miles are scheduled to be replaced in the near term in the North Catalina and Harbor Blvd areas. Overall, more than 20 miles of replacement pipelines are planned during the next 10 years and an even more aggressive program will be needed in the following two decades as the majority of pipelines reach the end of their lifecycle.

Water Pipeline Replacement



Total:	380 Miles	
Average Age of Pipelines:	44 Years	
Expected Pipeline Lifespan:	60-100 Years	
Replaced 10 Year:	10 Miles (2.5%)	
Planned Replacement 10 Year:	20 Miles (5%)	
Pipeline System Replacement Cost & Asset Value:	\$646M	

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