2012 Drinking Water Consumer Confidence Report

Trusted life source for generations

VENTURA WATER

Featuring Calendar Year 2011 Water Quality Results

Dear Valued Ventura Water Customer,

We are pleased to present this important information about Ventura's drinking water quality. This year's report explains our local water supplies and our promise to deliver reliable and quality services around the clock, 365 days a year. Ventura Water, a member of the City's community, has been providing essential water services since 1923 to keep our home strong and vital. As environmental stewards, we believe that integrated water management will create the best opportunities for long-term health and economic benefits. As financial stewards, we are focused on operating efficiently, using resources wisely, and protecting our infrastructure by replacing our aging facilities and pipelines at the right time, at the best price. We invite you to view Ventura Water's performance measures, reported regularly to the community (www.cityofventura.net/water/performancemeasures). 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 Mike Oakley, Interim Water Utility Manager at (805) 652-4500. 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.

Este informe contiene información muy importante sobre su agua potable. Traduzcalo o hable con alguien que lo entienda bien. Para más información o para obtener copias del informe de agua en espanol llame (805) 652-4500.

Our Continuing Commitment to You

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

- High-quality drinking water that meets or exceeds 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:

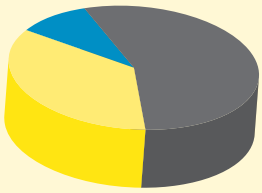
- Ventura's drinking water quality and its monitoring program successfully met all State and Federal regulatory standards.
- Our staff conducts many routine tests beyond those presented in this report to monitor and optimize water quality.
- We actively monitor the quality of our water supplies and collaborate 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'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

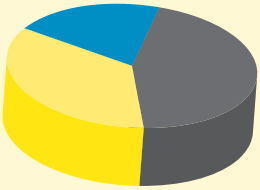
Ventura is one of the largest cities in California that relies exclusively on local water supplies. We manage our water portfolio of three distinct sources based on the flow of our Ventura River supply. When more river water is available, less groundwater is used and during dryer conditions, groundwater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

Dry Year



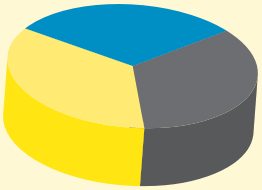
Ventura River	10%
Groundwater Wells	55%
Lake Casitas	35%

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.

Important Water Treatment Infomation

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 (TTHMs) 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.

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

Over the decades, Ventura Water has reliably planned, developed and managed our local water supply portfolio. With continued years of drought and tightening water restrictions and environmental responsibilities, Ventura's future supply availability is being impacted. 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. Allocations from two groundwater basins, Oxnard Plain and Santa Paula Basins, are increasingly regulated and monitored, which may potentially limit the quantity from these sources. Also, as a major supplier of our water, environmental challenges facing Casitas could result in both supply restrictions and higher costs.

While our residents have historically responded to calls for water conservation, Ventura Water recently launched a more coordinated program in response to tightening water supplies and our environmental and financial stewardship role. As detailed in the five-year Water Efficiency Plan (www.cityofventura.net/water/efficiency), the first year will focus on promoting water efficient landscaping. Since 40-60% of our water is used outdoors, replacing grass with low or no water-use native plants and/or monitoring and upgrading irrigation systems to prevent water waste and pollution are sustainable actions that will produce long-term water savings for our community.

Water efficiency is a cost effective solution that will create more supply without sacrificing convenience. Water rates are calculated, in part, on the amount of water used by customers. If customers use less water than projected, this does result in a loss of revenue to the utility. Consequently, it is possible that rates may rise in the future to recover more revenues because of lower water use. This future cost, however, should be compared with potential expenses, and the rates that would be necessary, to import expensive water supplies or build desalination or other water treatment facilities.

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. As discussed at the March 5, 2012 City Council meeting, Ventura Water will be conducting surveys and public education this year to determine if there is community support for higher rates to improve the quality of this water supply.

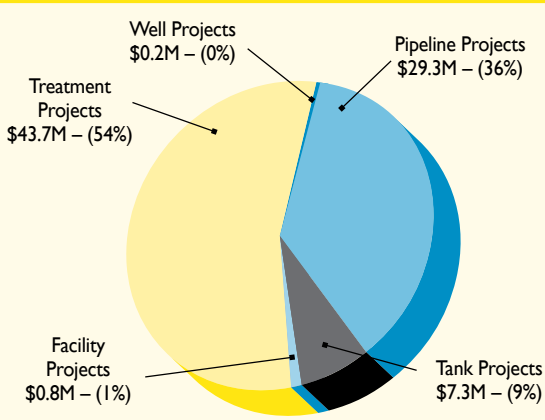
Water System

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.

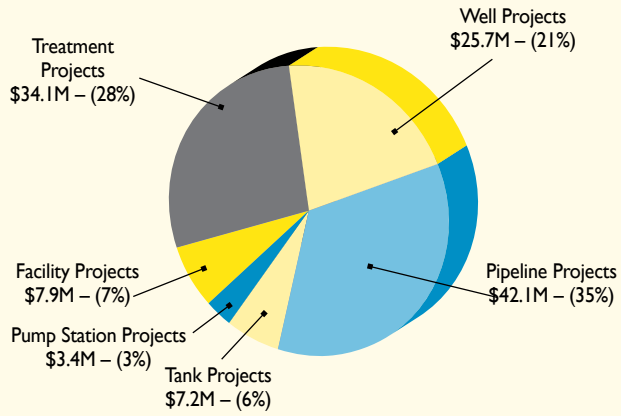
Booster Pump Stations	23
Storage Reservoirs	31
Valves	16,000
Meters	32,000
Fire Hydrants	3,700
Groundwater Wells	11
Lake Casitas Connections	2
Water Treatment Facilities	3
Pressure Zones	14

Over the past ten years, customers have invested over $80 million, through their water rates, to upgrade pipelines and tanks and to replace the Avenue Treatment facility in 2007.

Water Infrastructure Renewal 2002-2012 Actual $81.3 Million



Water Infrastructure Renewal 2012-2022 Projected $120.4 Million



The planned capital renewal program during the next ten years is projected to cost over $120 million. Two replacement groundwater wells are included that will help improve the quality of this water source. With an average age of 43 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. More than 10 miles of pipelines are planned to be replaced during this time period. The recent Water Master Plan shows that an even more aggressive program will be needed in the following two decades as the majority of pipelines reach the end of their lifecycle. In addition, the plan also calls for a reverse osmosis membrane treatment process to be installed to improve groundwater quality. Ventura Water will be conducting more customer outreach this year to determine if there is support from the community for this project.

Water Pipeline Replacement

Total:	380 Miles
Average Age of Pipelines:	43 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

Water Quality Monitoring

Ventura owns and operates a full-scale, State-certified laboratory and also uses outside State-certified labs to monitor water quality. Water quality constituents that were detected by the laboratories during 2011 are listed on the Water Quality Summary Table. As reflected, we are proud that our drinking water successfully met all State and Federal requirements and did not have any violations during the reporting period.

Ventura Water submits monthly, quarterly and annual reports to the State for review that summarize treatment and distribution operations and drinking water quality. The State annually 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.

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.

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).

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 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 http://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).

Connect With Us

Customer Care 667-6500 myvtawater@cityofventura.net

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youtube.com/venturawater

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

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 highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

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.

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

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 2007 to 2011.

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

TT: A required process 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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Ventura's Water Quality Summary 2012

Only water quality constituents detected by laboratory testing appear in the chart.

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Using Data Collected in 2011 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	0.02(a)	.02 - .05	0.19	0.1 - 0.7	0.06(b)	0.06	1
Radioactive Contaminants (e)										
Gross Alpha particle activity	pCi/l	15	NA	3.6	1 - 5.5	9.89	9.58 - 10.3	1.1	0.3 - 2.1	2
Radium 226	pCi/l	5	NA	0.13	ND - 0.3	0.2	0.1 - 0.2	NA	NA	2
Uranium (c)	pCi/l	20	0.5	2.5	1.5 - 4.9	7.34	6.43 - 7.99	NA	NA	2
Inorganic Contaminants										
Fluoride	ppm	2	1	0.53	0.35 - 0.65	0.55	0.45 - 0.70	0.4	0.4	4
Selenium	ppb	50	NA	ND	ND	10	6-16	NA	NA	5
Nitrate (as Nitrogen)	ppm	10	10	.99	ND - 1.6	3.57	ND - 4.1	0.7	0.7	6
Thalium	ppb	2	0.1	0.3	ND - 1.07	0.5	ND - 1.52	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	.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	2.45	2.28 - 2.58	Drinking water disinfectant added for treatment.
Disinfection By Products						
Total Trihalomethanes	ppb	80	NA	30(c)	22 - 32	By-product of drinking water chlorination.
Total Haloacetic Acids	ppb	60	NA	25(c)	18 - 29	By-product of drinking water chlorination.
Microbiological Contaminant Samples						
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 Level MCL	Ventura River Average	Ventura River Range	Ground Water Average	Ground Water Range	CMWD Average	CMWD Range
Aesthetic Standards	Color	Color	15	5	ND - 5	5	ND - 5	ND	ND
	Odor	Threshold	3	ND	ND	ND	ND	ND	ND
	Chloride	ppm	500	45	31 - 56	66	52 - 82	17	17
	Corrosivity	ppb	Non corrosive (+)	0.5	.34 - .74	0.47	.23 - .75	- 0.1	- 0.1
	Iron (TT)	ppb	300	ND	ND	ND	ND	50	50
	Total dissolved solids	ppm	1000	705	605 - 780	1283	987 - 1901	330	330
	Specific conductance	umhos	1600	968	898 - 1014	1630	987 - 2301	545	545
	Sulfate	ppm	500	238	154 - 259	552	463 - 755	130	130
Additional Constituents	pH	pH units	6.5 - 8.5	7.6	.46 - 7.79	7.4	7.2 - 7.58	7.5	7.5
	Hardness	ppm	NS	402	368 - 439	596	502 - 728	230	230
	Calcium	ppm	NS	114	101 - 129	158	127 - 194	56	56
	Magnesium	ppm	NS	29	28 - 30	49	42 - 59	22	22
	Manganese (TT)	ppb	50	ND	ND - 02	ND	ND - .03	ND	ND
	Sodium	ppm	NS	46	44 - 53	125	97 - 172	25	25
	Phosphate	ppm	NS	ND	ND - .05	0.12	ND - .2	ND	ND
	Potassium	ppm	NS	2.1	2.0 - 2.3	4.83	4 - 6.4	3	3
	Total Alkalinity	ppm	NS	228	147 - 298	272	230 - 306	120	120

Presented by: LIMONEIRA SINCE 1893 patagonia VENTURA WATER

Water: Take 1
Online Short Film Contest

Submit your film now!

Details:
Submissions must address the topic of water in less than five minutes and may be any genre - documentary, drama, comedy, animation, sci-fi or experimental.

Deadline:
September 4, 2012

How to submit:
Log on to www.watertake1.com for application, eligibility and entry form.

The top 10 finalists will be announced this Fall.

AWARDS

1st Place:
Sponsored by Limoneira
$1,500.00 Cash Prize

Audience Choice:
Sponsored by Patagonia
Canon EOS 7D Digital SLR Camera

California-Nevada Section American Water Works Association
FILMVENTURA California
Friends of the Ventura River
iThentic not everything, just the good stuff.
Matilija
Surfrider Foundation. www.surfrider.org
Ventura Hillsides Conservancy
Brooks Institute PASSION. VISION. EXCELLENCE.
carollo Engineers...Working Wonders With Water®
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For special needs please call 805-652-4587.