

CITY OF
ARCADIA



2018

Water Quality

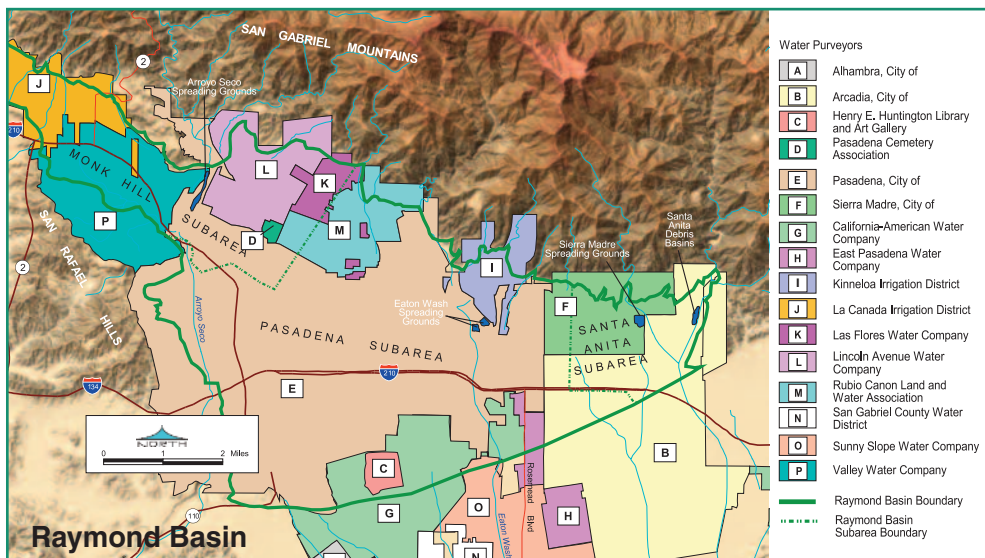
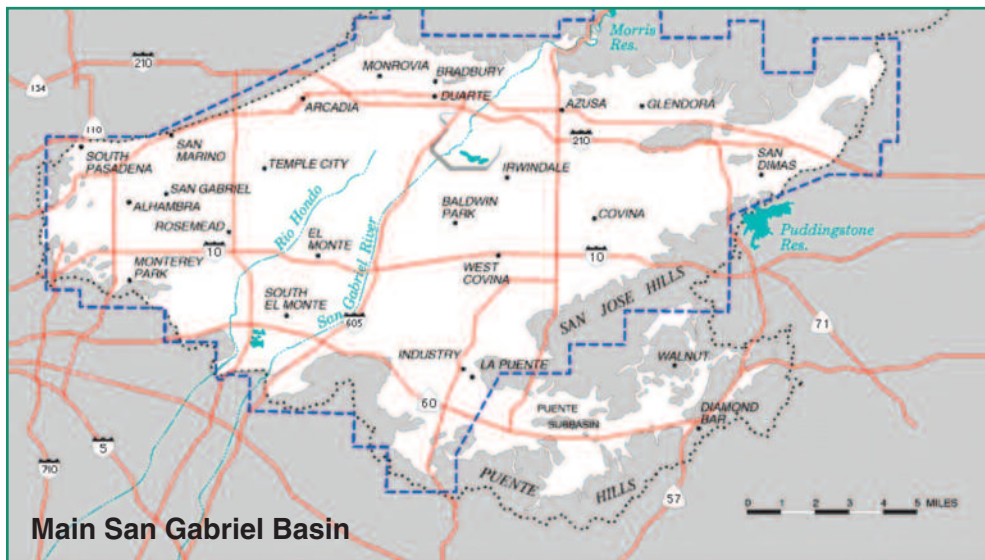
Report

The City of Arcadia is committed to keeping you informed on the quality of your drinking water and is dedicated to providing you with a safe and reliable supply of high quality water. This report is provided to you annually and includes information describing where your drinking water comes from, the constituents found in your drinking water and how the water quality compares with the regulatory standards. The drinking water provided by the City of Arcadia in 2018 complies with all Federal and State drinking water standards.

City Council meetings provide an opportunity for public participation in decisions that may affect the quality of your water. Regularly scheduled meetings of the City Council are held on the first and third Tuesday of each month at 7:00 PM in the City Council Chambers located at 240 West Huntington Drive in Arcadia.

Where Does My Drinking Water Come From?

The water supply for the City of Arcadia comes from two sources: (1) groundwater from wells in the Main San Gabriel Basin; and (2) groundwater from wells in the Raymond Basin.



Groundwater comes from natural underground aquifers that are replenished with local rainwater and imported water. The groundwater basins from which the City of Arcadia pumps its water lay beneath the San Gabriel Valley. More than 30 retail water systems draw from the basins to provide water to residents and businesses.

What are Water Quality Standards?

In order to ensure that tap water is safe to drink, the United States Environmental Protection Agency (USEPA) and the State Water Resources Control Board, Division of Drinking Water (DDW) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health.

Drinking water standards established by USEPA and DDW set limits for substances that may affect consumer health or aesthetic qualities of drinking water. The chart in this report shows the following types of water quality standards:

- Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.
- 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 pathogens.
- Primary Drinking Water Standard:** MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
- Regulatory Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Notification Level (NL):** An advisory level which, if exceeded, requires the drinking water system to notify the governing body of the local agency in which users of the drinking water reside (i.e. city council, board of directors, and county board of supervisors).

City of Arcadia-2018 Water Quality Table

Constituent and (units)	MCL or [MRDL]	PHG (MCLG) or [MRDLG]	DLR	LOCAL GROUNDWATER Result (a)	Range (Min-Max)	Typical Origins
PRIMARY DRINKING WATER STANDARDS - Health-Related Standards						
Microbiological						
Total Coliform (b)	5.0%	(0)	NA	2.8%	—	Naturally present in the environment
Disinfectant and Disinfection Byproducts (c)						
Total Trihalomethanes (TTHM) (µg/l)	80	NA	0.5	13	4.4 - 17	Byproduct of drinking water chlorination
Haloacetic acids (five) (HAA5) (µg/l)	60	NA	1-2	1.8	ND - 2.6	Byproduct of drinking water disinfection
Chlorine Residual (mg/l)	[4]	[4]	NA	0.71	0.2 - 1.6	Drinking water disinfectant
Organic Chemicals						
1,2,3-Trichloropropane (1,2,3-TCP) (µg/l)	0.005	0.007	0.005	<0.005	ND - 0.01	Discharge from industrial and agrichemical factories; byproduct of producing other compounds and pesticides; leaching from hazardous waste sites.
Tetrachloroethylene (PCE) (µg/l)	5	0.06	0.5	<0.5	ND - 2.7	Discharge from industrial activities
Trichloroethylene (TCE) (µg/l)	5	1.7	0.5	1.3	ND - 5.4	Discharge from industrial activities
Inorganic Chemicals						
Aluminum (mg/l)	1	0.6	0.05	<0.05	ND - 0.12	Erosion of natural deposits
Arsenic (µg/l)	10	0.004	2	<2	ND - 5.7	Erosion of natural deposits
Chromium, total (µg/l)	50	(100)	10	<10	ND - 16	Indujtrial discharge or erosion of natural deposits
Fluoride, Naturally-occurring (mg/l)	2	1	0.1	0.65	0.32 - 1.4	Erosion of natural deposits
Nitrate as N (mg/l)	10	10	0.4	3.1	ND - 7.4	Runoff and leaching from fertilizer use
Radioactivity (c)						
Gross Alpha Particle Activity (pCi/l)	15	(0)	3	<3	ND - 6.4	Erosion of natural deposits
Uranium (pCi/l)	20	0.43	1	2.6	ND - 6	Erosion of natural deposits
SECONDARY DRINKING WATER STANDARDS - Aesthetic Standards, Not Health-Related						
Aluminum (µg/l)	200	600	50	<50	ND - 120	Erosion of natural deposits
Chloride (mg/l)	500	NA	NA	24	7.6 - 41	Runoff/leaching from natural deposits
Color (color units)	15	NA	NA	0.3	ND - 3	Naturally-occurring organic materials
Iron (µg/l)	300	NA	100	<100	ND - 580	Runoff/leaching from natural deposits
Odor (threshold odor number)	3	NA	1	1	1	Runoff/leaching from natural deposits
Sulfate (mg/l)	500	NA	0.5	43	17 - 66	Runoff/leaching from natural deposits
Specific Conductance (µmho/cm)	1600	NA	NA	510	320 - 700	Substances that form ions in water
Total Dissolved Solids (mg/l)	1000	NA	NA	310	190 - 380	Runoff/leaching from natural deposits
Turbidity (NTU)	5	NA	0.1	0.41	ND - 3.3	Runoff/leaching from natural deposits
UNREGULATED CONSTITUENTS OF INTEREST						
Hardness as CaCO3 (mg/l)	NA	NA	NA	195	25.5 - 273	Runoff/leaching from natural deposits
Sodium (mg/l)	NA	NA	NA	29	14 - 54	Runoff/leaching from natural deposits
UNREGULATED CONSTITUENTS REQUIRING MONITORING						
Bromide (µg/l)	NA	NA	NA	83	23 -120	Industrial discharge
UNREGULATED CONSTITUENTS REQUIRING MONITORING AT ENTRY POINTS INTO THE DISTRIBUTION SYSTEM						
1,4-Dioxane (µg/l)	NL = 1	NA	NA	<0.07	ND - 0.1	Industrial waste discharge
Chlorate (µg/l)	NL = 800	NA	NA	120	ND - 290	Byproduct of drinking water chlorination; industrial processes
Chromium, Hexavalent (µg/l)	NA	0.02	NA	4.5	0.47 - 11	Industrial discharge or erosion of natural deposits
Chromium, Total (µg/l) (e)	50	(100)	NA	4.8	0.51 - 12	Industrial discharge or erosion of natural deposits
Manganese (µg/l) (f)	SMCL = 50	NA	NA	<0.4	ND - 1.1	Erosion of natural deposits
Molybdenum, Total (µg/l)	NA	NA	NA	3.8	ND - 18	Runoff/leaching from natural deposits
Strontium, Total (µg/l)	NA	NA	NA	290	99 - 540	Runoff/leaching from natural deposits
Vanadium, Total (µg/l)	NL = 50	NA	NA	11	3.6 - 48	Runoff/leaching from natural deposits
LEAD AND COPPER TESTING AT RESIDENTIAL TAPS						
Lead/Copper	Action Level (AL)	PHG	90th Percentile Value		Typical Origins	
Copper (mg/l) (g)	1.3	0.3	0.39		Corrosion of household plumbing system	
Lead (µg/l) (g)	15	0.2	ND		Corrosion of household plumbing system	
UNREGULATED CONSTITUENTS REQUIRING MONITORING IN THE DISTRIBUTION SYSTEM						
Chlorate (µg/l)	NL = 800	NA	NA	180	150 - 220	Byproduct of drinking water chlorination; industrial processes
Chromium, Hexavalent (µg/l) (e)	NA	0.02	NA	4.3	3.2 - 5.9	Industrial discharge or erosion of natural deposits
Chromium, Total (µg/l) (e)	50	(100)	NA	4.1	3.5 - 4.6	Industrial discharge or erosion of natural deposits
Haloacetic acids (HAA5) (µg/l)	NA	NA	NA	2.1	1.3 - 2.8	Byproduct of drinking water disinfection
Haloacetic acids (HAA6Br) (µg/l)	NA	NA	NA	2.6	1.6 - 3.9	Byproduct of drinking water disinfection
Haloacetic acids (HAA9) (µg/l)	NA	NA	NA	3.4	2.1 - 4.8	Byproduct of drinking water disinfection
Molybdenum, Total (µg/l)	NA	NA	NA	3	1.5 - 4.9	Runoff/leaching from natural deposits
Strontium, Total (µg/l)	NA	NA	NA	370	310 - 400	Runoff/leaching from natural deposits
Vanadium, Total (µg/l)	NL = 50	NA	NA	8.5	6.7 - 12	Runoff/leaching from natural deposits

Notes

mg/l = parts per million or milligrams per liter
 µg/l = parts per billion or micrograms per liter
 pCi/l = picocuries per liter
 µmho/cm = micromhos per centimeter
 NTU = Nephelometric Turbidity Units
 AL = Action Level
 DLR = Detection Limit for the Purpose of Reporting
 MCL = Maximum Contaminant Level
 MCLG = Maximum Contaminant Level Goal
 MRDL = Maximum Residual Disinfectant Level
 MRDLG = Maximum Residual Disinfectant Level Goal
 ND = Not Detected at DLR
 NA = No Applicable Limit
 NL = Notification Level
 PHG = Public Health Goal
 SMCL = Secondary MCL
 < = Detected but average is below the DLR

(a) The results reported in the table are average concentrations of the constituents detected in your drinking water during year 2018 or from the most recent tests done in compliance with regulations (2009-2018), except for TTHM, HAA5, lead and copper which are described below.
 (b) The result is the highest percentage of positive samples collected in a month during 2018. Coliforms are bacteria used as an indicator that if present, indicates other potentially harmful organisms may be present. According to the State Water Resources Control Board, Division of Drinking Water (DDW), no more than 5.0% of the monthly samples may be Total Coliform-positive. Total Coliforms were detected in three samples collected in the distribution system in July 2018. However, all follow-up confirmation samples were negative for Total Coliforms and Fecal/E. Coli bacteria. A routine sample and a repeat sample that are Total Coliform positive and where one of these is also Fecal/E. Coli positive constitutes an MCL violation. Therefore, the MCL was not violated in 2018.

(c) Four (4) locations in the distribution system are tested quarterly for disinfection byproducts. The highest locational running annual averages for TTHM and HAA5 are reported as "Result." The maximum and minimum of the individual results for TTHM and HAA5 are reported as "Range." Twenty (20) locations are tested weekly for chlorine residual.
 (d) Not all sources were sampled for radioactivity in 2018; sources were sampled between 2010 to 2018. The most recent results are included.
 (e) Total chromium was included as part of the unregulated constituents requiring monitoring
 (f) Manganese is regulated with a secondary standard of 50 µg/l but was not detected, based on the DL of 20 µg/l Manganese was included as part of the unregulated constituents requiring monitoring.
 (g) Thirty (30) residences were sampled in June 2016 and July 2016. Concentrations were measured at the tap. Copper was detected at twenty-nine (29) locations; none exceeded the copper Action Level. Lead was not detected at any of the locations. The next round of lead and copper samples will be collected in 2019. In 2018, no school submitted request to be sampled for lead.

What is a Water Quality Goal?

In addition to mandatory water quality standards, USEPA and DDW have set voluntary water quality goals for some contaminants. Water quality goals are often set at such low levels that they are not achievable in practice and are not directly measurable. Nevertheless, these goals provide useful guideposts and direction for water management practices. The chart in this report includes three types of water quality goals:

- **Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by USEPA
- **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.
- **Public Health Goal (PHG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

What Contaminants may be Present in Sources of Drinking Water?

The sources of drinking water (both tap water 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 maybe present in source water include:

- **Microbial contaminants**, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- **Inorganic contaminants**, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff,

industrial or domestic wastewater discharges, oil and gas production, mining or farming.

- **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- **Radioactive contaminants**, that can be naturally-occurring or be the result of oil and gas production and mining activities.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application and septic systems.

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 at (800) 426-4791.

Are There any Precautions the Public Should Consider?

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 (800) 426-4791.

What is in My Drinking Water?

Your drinking water is regularly tested using DDW-approved methods to ensure its safety. The table in this report lists all the constituents detected in your drinking water that have Federal and State drinking water standards. Detected unregulated constituents and other constituents of interest are also included. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

Arsenic

The following advisory is issued because in 2018 we recorded an arsenic measurement of 5.7 micrograms per liter (µg/l) in the drinking water supply, which is slightly above half of the MCL. While your drinking water meets the 10 µg/l MCL for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. The USEPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Nitrate

The maximum level of nitrate measured in the City of Arcadia's drinking water was 7.4 milligrams per liter (mg/l) in 2018.

Although nitrate in your drinking water never exceeds the MCL of 10

mg/l, nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. Nitrate in drinking water at levels above 10 mg/l is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 10 mg/l may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask for advice from your health care provider.

Lead in Tap Water

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. The City of Arcadia is dedicated to 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 <https://www.epa.gov/lead>.

Capital Improvement Projects - Water Utility

Every day, Arcadia's city-owned wells pump water from the Main San Gabriel and Raymond basins into the water distribution system, serving high-quality drinking water to the community. As part of the City's Capital Improvement Program (CIP), maintenance projects improving reliability and efficiency of the City's water utility infrastructure are implemented on an annual basis. These projects are vital in preserving infrastructure reliability, ensuring that safe and clean water is delivered with minimal service interruption.

Each year, the City's Public Works Services Department completes scheduled CIP projects. In 2018, the following projects were completed:

- Water Main Replacement Project on Camino Real Avenue from Second Avenue to Fourth Avenue: one 10-inch cast iron water main was replaced with a new 10-inch ductile water main and new valves to enhance reliability.
- Valve Replacement Project on Santa Anita Avenue between Duarte Road and Orange Grove Avenue: one 30-inch gate valve was replaced with a new 30-inch butterfly valve critical for water reliability in emergencies.



Coliform Bacteria

This Consumer Confidence Report reflects changes in drinking water regulatory requirements during 2016. All water systems are required to comply with the state Total Coliform Rule. Effective April 1, 2016, all water systems are also required to comply with the federal Revised Total Coliform Rule. The new federal rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of microbials (i.e., total coliform and E. coli bacteria). The USEPA anticipates greater public health protection as the new rule requires water systems that are vulnerable to microbial contamination to identify and fix problems. Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an assessment to determine if any sanitary defects exist. If found, these must be corrected by the water system

Drinking Water Source Assessment

In accordance with the Federal Safe Drinking Water Act, an assessment of the drinking water sources for the City of Arcadia was completed in December 2002. The purpose of the drinking water source assessment is to promote source water protection by identifying types of activities in the proximity of the drinking water sources which could pose a threat to the water quality. The assessment concluded that the City of Arcadia's sources are considered vulnerable to the following activities or facilities associated with contaminants detected in the water supply: gasoline stations, automobile repair shops, chemical/petroleum pipelines, utility stations, electrical/electronic manufacturing, waste dumps/landfills, high density housing and dry cleaners. In addition, the sources are considered most vulnerable to the following activities or facilities not associated with contaminants detected in the water supply: sewer collection systems, car washes, transportation corridors, junk/scrap/salvage yards and above or below ground storage tanks. A copy of the complete drinking water source assessment is available at the City of Arcadia, Public Works Services Department

located at 11800 Goldring Road, in Arcadia. You may request a summary of the assessment to be sent to you by contacting the City of Arcadia, Public Works Services Department at (626) 254-2700.

Fluoride in Drinking Water

Our local groundwater is not supplemented with fluoride. Fluoride levels in drinking water are limited under California state regulations at a maximum dosage of 2 parts per million (ppm).

Groundwater Facts

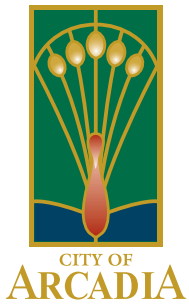
Groundwater is the result of precipitation that seeps down through the soil until it reaches rock material that traps it and becomes saturated with water, creating an underground basin. Water in the ground is stored in the spaces between rock particles. Groundwater slowly flows underground, generally at a downward angle, and may eventually seep into streams, lakes, and oceans.

The City of Arcadia relies almost exclusively on groundwater pumped from the Main San Gabriel and Raymond Basins.

Groundwater is a fragile resource that can be easily polluted, is very slow moving, difficult to monitor, expensive to treat, and slow to recharge. Protecting Arcadia's drinking water source is everyone's responsibility. You can help protect our water by eliminating/reducing excess use of fertilizers and pesticides, picking up after your pets, conserving water and using it efficiently; and disposing of chemicals properly.

Runoff

Water runoff from residential car washing, leaking sprinklers, and excessive irrigation picks up hazardous substances such as fertilizer, chemicals, oil, and pet waste into the City's storm drain system. This runoff then travels to the ocean. By limiting the amount of water running off your property, you can help protect the environment and save water at the same time!



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Water Conservation

Arcadia is located in a warm environment characterized by hot, dry summers. While the drought emergency may be over, we are not receiving consistent rainfall year after year. In fact, the Main San Gabriel Basin reached a new historic low in November 2018. This past winter, approximately 15 inches of rain fell locally and increased the Main Basin key well by 13 feet to 182.7 feet in March 2019. According to the Main San Gabriel Basin Watermaster, the basin is currently at 60% of full capacity and several consecutively wet years are needed to reach healthy levels. Taking into consideration our local context, water conservation is crucial in preserving our water supply and natural environment.



Since 2015, the City of Arcadia has partnered with WaterSmart Software to provide customers with a more complete understanding of

their water use. An educational quarterly Home Water Report is sent to single-family residential customers providing information about their home water use. The online portal is also accessible to customers, simply register at arcadia.watersmart.com.

The report and the companion online portal will help you to:

- View and understand your recent water use in gallons and how it compares to similar households throughout Arcadia.
- Find easy and effective tips to save water and money, with step-by-step advice.
- Register your account in the portal to update your information and access special features.
- Sign-up to receive notifications and e-mail alerts if your water consumption indicates a possible leak.
- Stay up-to-date on City of Arcadia water conservation news, programs, and events!

PLEASE OBSERVE THE CITY'S SEASONAL WATERING SCHEDULES:

Summer: May 1 through October 31
the watering days are Tuesdays, Thursdays, and Saturdays

Winter: November 1 through April 30
the watering days are Tuesdays, and Saturdays

Outdoor irrigation is permitted before 9:00 a.m. and after 6:00 p.m. to minimize evaporation. Limit overhead sprinklers to 10 minutes per station. Trees and shrubs may be irrigated any day of the week within permitted hours using a hand-held hose attached with shut-off nozzle.

The City's Water Conservation Program offers a variety of excellent resources to help our customers be water smart! For information on rebates, events, and giveaways, visit www.ArcadiaCA.gov/watercon. Follow [@ShapeArcadia](https://twitter.com/ShapeArcadia) on Twitter to keep up to date on City projects and smart strategies that promote sustainability.



Questions?

For more information or questions regarding this report, please contact the City of Arcadia, Public Works Services Department at (626) 254-2700

Este informe contiene información muy importante sobre su agua potable. Para mas información ó traducción, favor de contactar the City of Arcadia, Public Works Services Department. Telefono: (626) 254-2700.

此份有關你的食水報告,內有重要資料和訊息,請找
他人為你翻譯及解釋清楚。

City of Arcadia Public Works Services Department, (626) 254-2700