

## WATER CONSERVATION PROGRAM

The City of Modesto thanks its water customers for doing their part to help combat the increasing demand for water. Our water flow reports indicate a decrease in consumption over the past several years. Since 2003, water consumption by City of Modesto water customers has reduced almost 20% and is at or around 1997 levels. Modesto is not experiencing a critical water shortage like much of the State; however, it is still vitally important to conserve water year round as it is a precious resource.

In March of 2003, the Modesto City Council adopted Stage One Water Restrictions of the City's Drought Contingency Plan. This plan was developed to address water capacity issues, including implementing measures to reduce water consumption through the water restrictions and the year-round watering schedule. Stage One Water Restrictions include:

- Outdoor water use is prohibited on Mondays.
- Outdoor water use is prohibited daily between the hours of noon and 7 p.m.
- Addresses ending in odd-numbers are only allowed to water on Wednesday, Friday and Sunday.
- Addresses ending in even-numbers are only allowed to water on Tuesday, Thursday and Saturday.

Year-round watering schedule for City of Modesto customers.

For more information, or to report water waste call **209.342.4580**

ODD NUMBERED ADDRESSES END IN 1, 3, 5, 7, 9  
EVEN NUMBERED ADDRESSES END IN 0, 2, 4, 6, 8

	SUN	MON	TUES	WED	THURS	FRI	SAT
IF YOUR ADDRESS IS...	ODD	DO NOT WATER	EVEN	ODD	EVEN	ODD	EVEN
MIDNIGHT TO NOON	WATER	DO NOT WATER	WATER	WATER	WATER	WATER	WATER
NOON - 7:00 PM	DO NOT WATER						
7:00 PM - MIDNIGHT	WATER	DO NOT WATER	WATER	WATER	WATER	WATER	WATER

- Car washing is subject to the above-cited limitation with the use of a positive shut-off nozzle.
- Hosing of concrete areas, building exteriors, etc. may only be done with a City-issued permit and a positive shut-off nozzle.
- Water leaks, once identified, must be repaired within 24 hours.
- Restaurants are encouraged to serve water only upon request.
- New landscaping (residential and commercial) must comply with existing landscape ordinances.
- All new single-family residences must have a water meter installed.

Water conservation is more important than ever to maintain our quality of life in the valley. Using only the proper amount of water and avoiding peak usage times has many benefits for the community such as:

- Preventing the waste of a precious resource that we all depend upon daily.
- Improving the pressures in the distribution system so customers and fire departments have enough water when they need it.
- Saving money by reducing the electricity demands necessary to pump the water to your home and business.
- Reducing unnecessary wear on equipment, which reduces maintenance costs.

## CONTACT US

**FIELD SERVICES - WATER**  
209.342.2246

**REPORT WATER WASTE**  
209.342.4580

**WATER QUALITY**  
209.342.2246

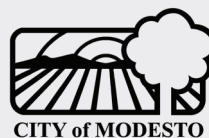
**UTILITY BILLING**  
209.577.5395

**WEB SITE:**  
[www.modestogov.com/pwd](http://www.modestogov.com/pwd)  
click on Utilities, then click on the Water Services Division.

**MAILING ADDRESS**  
City of Modesto  
Water Division  
PO Box 642  
Modesto, CA 95353

**GET INVOLVED**  
You are always welcome to participate in City Council meetings and voice your concerns about drinking water. The Modesto City Council meets the 1st, 2nd and 4th Tuesday of each month at 5:30 p.m. (unless otherwise posted) in the basement of Tenth Street Place, located at 1010 Tenth Street.

**COMCATE**  
[www.modestogov.com/comcate](http://www.modestogov.com/comcate)  
An easy way to send your questions, complaints and compliments directly to the City staff person who can help you.



# CITY OF MODESTO 2009 ANNUAL DRINKING WATER QUALITY REPORT FOR PUBLIC WATER SYSTEM 5010035

*The City of Modesto's water is safe and healthy to drink for most people. People with special health concerns can learn more about important health information on page 1.*

This report is being mailed to you as a requirement of the federal Safe Drinking Water Act and covers the data for the calendar year from January 1, 2009 to December 31, 2009.

*This report contains important information about your drinking water. If the report is not available in your native language, we encourage you to identify someone who understands it and can translate for you.*

*Este informe contiene información importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien. Para información en español, llame por favor al (209) 342-2246.*



## WATER METER PROGRAM

In September 2004, State Assembly Bill 2572 became law, requiring the installation of water meters on all water connections built before 1992, and mandating that all metered customers be billed based on the actual volume of water used. Volume-based billing for customers with meters installed at their residence must begin in 2010 and meters must be installed on all residences by 2025.

Most of Modesto was built prior to 1992; the year mandatory installation of water meters on new construction began. As a result, most of the city's residential water customers did not have water meters. In 2004, the City developed a plan to install water meters on all water connections; the work began in 2006, and by the year 2025, more than 76,000 water meters will be operating.

The City is installing an Automated Meter Reading (A.M.R.) system which allows a meter reader to electronically gather data simply by driving past (usually within 300 feet) of the meters on the route. This allows for a much faster collection of meter data. The system also detects leaks, so readings and billings are more accurate and service repairs are more efficient. To date, the City of Modesto Water Division has installed more than 44,000 water meters and upgraded more than 42,500 meters with A.M.R. technology. Some regions of the water system, such as Grayson and Del Rio, have been fully metered for several years and are billed by their metered water consumption. Salida and some areas of Northwest Modesto have been metered since November 2008 and billing by consumption has begun in those metered areas as well.

Once a water meter is installed, the meter measures how much water is used. The meter is read once a month, and a bill is produced based on the difference between the current month's and the previous month's usage. Studies by the California Public Utilities Commission have shown that communities with metered water systems use 7-20 percent less water than non-metered areas. In addition, city services are more cost effective and operate more efficiently with an automated water metering system in place. By metering water use and billing customers accordingly, we can begin working together to conserve water, which is our most precious natural resource.

For more information on where meters have already been installed and the planned future installations, please visit [www.modestogov.com/pwd/utilities/water/meters/installation\\_map.asp](http://www.modestogov.com/pwd/utilities/water/meters/installation_map.asp) or call (209) 342-2246.

## WATER SYSTEM IMPROVEMENTS

*The City of Modesto plans and implements projects to improve the quality of life, protect the quality of our water supply and to ensure a continued reliable water supply for the present and future. Some of the ways the City is accomplishing this includes:*

### MID SURFACE WATER PLANT EXPANSION

Since 1995, the Modesto Regional Water Treatment Plant (MRWTP) has provided approximately 30 million gallons per day (mgd) of treated surface water to the City of Modesto water system. Together, the City and the Modesto Irrigation District (MID) have been working on the expansion of the MRWTP from its existing average annual daily basis of 30 mgd to 60 mgd.

The MRWTP currently treats water from the Modesto Reservoir and conveys it to the City's service area to combine with groundwater sources to meet the City's water supply needs. The MRWTP began operation in 1995, significantly reducing the City's reliance on groundwater pumping and also eliminating the groundwater overdraft condition. The Phase Two Expansion project is needed to provide existing customers with a continued reliable water source and keep pace with the City's projected growth.

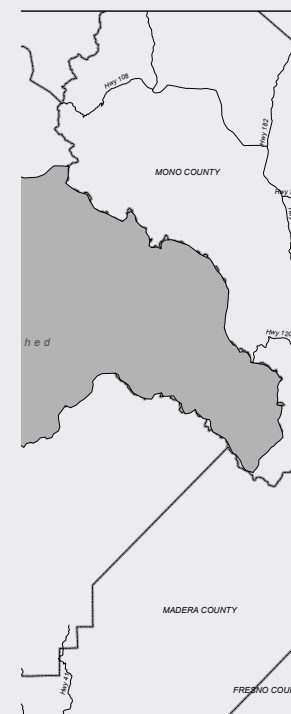
The MRWTP Phase Two Expansion project will double the current capacity on an average daily basis. The project also includes upgrades to the current plant's disinfection facilities and the Terminal Reservoir pumping capacity. The plant is 95% complete and should be ready to be placed into service by 2011.

### DOWNSTREAM IMPROVEMENTS

In addition to the expansion project at the MRWTP, the City of Modesto has determined that its existing water system needs additional improvements to fully integrate the expanded MRWTP with the City's distribution system. These downstream improvements primarily consist of additional storage reservoirs, transmission mains, and pressure regulating valves to control the flow of water between the MID-owned transmission facilities and the City system.

1. Water from Modesto Reservoir flows by gravity into the water treatment plant where ozone is added for the first round of disinfection.
2. Two additives (liquid alum and polymers) are mixed rapidly into the disinfected water to attract suspended particles in the water and cause them to come together into a substance known as floc.
3. The water then flows into sedimentation basins to allow the floc to settle at the bottom before the water goes to the filters.
4. Next, the water moves through a filter of anthracite coal and gravel where the floc is removed.
5. Chlorine is added as the final disinfection.
6. Next, lime and carbon dioxide are added to make the water less corrosive and more compatible with the groundwater it is about to be mixed with.
7. Treated water is then moved into water storage reservoirs, pumped into the distribution system and delivered to the City's customers.

The treated drinking water travels more than 20 miles from the plant to Modesto and into two large tanks where it is pumped out as needed into what are called transmission lines. These transmission lines are spread out through Modesto and feed into smaller water mains that go to the different neighborhoods. The mains feed into service lines that take the drinking water directly to homes and you get to drink it, cook with it, bathe with it, etc.



## WHAT'S IN MY DRINKING WATER?

The sources of City of Modesto drinking water (both tap water and bottled water) include rivers, streams, reservoirs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and some radioactive materials, and substances resulting from the presence of animals or from human activity. Contaminants that may be present in the source water include:

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

## How to Read the Tables

The table below lists contaminants which: 1) have associated primary Maximum Contaminant Levels (MCLs) that are regulated and 2) were detected by the City of Modesto's Water Services Division. Contaminants were detected below, at or above the California Department of Public Health's Detection Limits for Purposes of Reporting (DLR) during the 2009 calendar year. *The presence of these contaminants in the drinking water does not necessarily indicate that the water poses a health risk.* More information about contaminants and potential health risks can be obtained by calling the U.S. Environmental Protection Agency (EPA) at (800) 426-4791 or visiting the agency's Web site at [www.epa.gov/safewater/facts.html](http://www.epa.gov/safewater/facts.html). California action levels are available on the Department of Public Health Web site at [www.cdph.ca.gov](http://www.cdph.ca.gov).

**Table 1** lists all regulated contaminants with Primary MCLs that the City of Modesto's Water Services Division detected in the drinking water below, at or above the state DLR.

**Table 2** lists regulated contaminants with Secondary MCLs that were detected at or above the state DLR.

**Table 3** lists disinfection residuals and disinfection by-products that were detected in the treated water.

## Definitions of Terms

**AL (action level):** the concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

**MCL (maximum contaminant level):** the highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs or MCLGs as feasible using the best available treatment technology. Secondary MCLs are set to protect the odor, taste and appearance of drinking water.

**MCLG (maximum contaminant level goal):** the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**MRDL (maximum residual disinfectant level):** 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.

**MRDLG (maximum residual disinfectant level goal):** 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 contamination.

**TT (treatment technique):** a required process intended to reduce the level of a contaminant in drinking water.

## Abbreviations

**CDPH:** California Department of Public Health

**DLR:** detection limit for reporting

**mg/L:** number of milligrams in one liter of water

**n/a:** not applicable

**NTU:** nephelometric turbidity units

**pCi/L:** picocuries per liter (a measure of radiation)

**ppb:** parts per billion

**ppm:** parts per million

**ppt:** parts per trillion

**TT:** treatment technique

**µS/cm:** micro-siemens/cm

<: less than

>: greater than

**TABLE 1 - DETECTED REGULATED CONTAMINANTS WITH MCL'S**

### AT THE TAP CONTAMINANTS - LEAD AND COPPER RULE

CONTAMINANT	UNITS	ACTION LIMIT	PHG (MCLG)	CDPH DLR	NUMBER OF SAMPLES	90TH PERCENTILE CONCENTRATION	YEAR SAMPLED	# SAMPLES < ACTION LEVELS	TYPICAL SOURCE OF CONTAMINANTS
Copper	ppm	1.3	0.17	0.05	9	0.062	2008	0	Erosion of natural deposits; internal corrosion of household plumbing systems; leaching of wood preservatives
Lead	ppb	15	2	5	9	2.5	2008	0	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

**TABLE 2 - DETECTED REGULATED CONTAMINANTS WITH SECONDARY MCL'S**

### BACTERIOLOGICAL CONSTITUENTS

CONTAMINANT	UNITS	MCL	PHG (MCLG)	CDPH DLR	HIGHEST NUMBER OF POSITIVES IN A SINGLE MONTH	YEAR SAMPLED	VIOLATION	TYPICAL SOURCE OF CONTAMINANTS
Heterotrophic Plate Count	cfu/ml	n/a	n/a	n/a	5	2009	NO	n/a

**TABLE 3 - DETECTED DISINFECTION RESIDUAL**

### DISINFECTANT RESIDUAL

CONTAMINANT	UNITS	MCL MRDL	MCLG MRDLG	CDPH DLR	AVERAGE	RANGE	YEAR SAMPLED	VIOLATION	TYPICAL SOURCE OF CONTAMINANTS
Chlorine	mg/L	4.0	4.0	n/a	0.7	0.1-1.0	2009	NO	Drinking water disinfectant added for treatment