

# An Introduction To Wastewater Treatment

Got Questions Or Want To Know More?

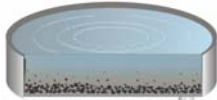


The City of Grass Valley Public Works Department operates the City's wastewater treatment plant that provides sewer service to 12,100 residents and 1,700 businesses (including industries).

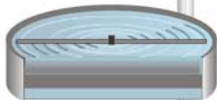
On average, the City discharges 2,100,000 gallons per day of treated wastewater effluent to Wolf Creek.

**The City's wastewater treatment system consists of many processes.**

All wastewater first goes through the primary treatment process, which involves screening and settling out large particles.



Wastewater then moves on to the secondary treatment process, in which organic matter is removed by allowing bacteria to break down the pollutants.



The City also puts the wastewater through advanced treatment (filtration) to further remove particulate matter. The treated wastewater is then disinfected with chlorine to remove the remaining bacteria and dechlorinated before it is discharged to Wolf Creek.



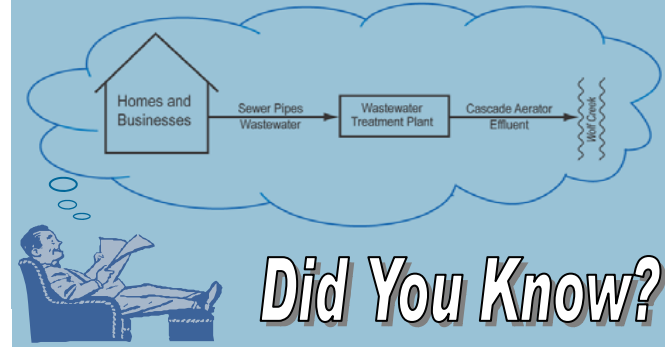
- To read the City's new Discharge Permit: [www.cityofgrassvalley.com](http://www.cityofgrassvalley.com)
- To read the City's current Industrial Pretreatment Program Ordinance: [www.cityofgrassvalley.com](http://www.cityofgrassvalley.com) then to Municipal Code Chapter 13.20
- To read about Federal pretreatment program requirements: [www.epa.gov/epahome/cfr40](http://www.epa.gov/epahome/cfr40) then to 40 CFR Part 403
- To read about new water quality standards: [www.swrcb.ca.gov/rwqcb5](http://www.swrcb.ca.gov/rwqcb5) (Water Quality Goals) [www.swrcb.ca.gov/](http://www.swrcb.ca.gov/) (State Implementation Policy) [www.swrcb.ca.gov/](http://www.swrcb.ca.gov/) (California Toxics Rule)
- To read about National Pollution Discharge Elimination System (NPDES) permits <http://www.epa.gov/npdes/pubs/101pape.pdf>
- To learn more about wastewater treatment plants: [www.wef.org/wefstudents/gowithflow/index.htm](http://www.wef.org/wefstudents/gowithflow/index.htm)

## Want to Participate?

The City has formed a Pretreatment Sewer Advisory Committee to assist and enhance outreach to businesses. For additional information on the City of Grass Valley's Pretreatment Program, please contact the Public Works Department at (530)274-4350 or [debbiew@cityofgrassvalley.com](mailto:debbiew@cityofgrassvalley.com).

# CITY OF GRASS VALLEY

## Wastewater Pretreatment Program



Wastewater from homes and businesses travels in the City's sewer system to the wastewater treatment plant (WWTP). After treatment, the effluent is discharged to Wolf Creek via a cascade aerator (shown below). The effluent must meet water quality standards that protect public health and the environment.



Grass Valley's effluent discharge to Wolf Creek via a cascade aerator.



## Did You Know About the City's New Discharge Requirements?

The City's permit to discharge effluent to Wolf Creek now includes many new State and Federal requirements to provide better protection of public health and the environment.

One of these requirements is that the City upgrade its pretreatment program (Municipal Code, Chapter 13.20) controlling the amounts of pollutants in discharges to the City's sewer system from commercial and industrial businesses.

Pollutant discharges from businesses can be reduced by changing business practices that cause pollution and/or by on-site treatment (pretreatment) prior to discharge to the City's sewer system.

For some pollutants, pretreatment at the source is a more cost-effective and equitable way for the City's wastewater effluent discharge to Wolf Creek to meet State and Federal requirements (and to improve water quality) than to make costly improvements to the wastewater treatment plant.

Pollution prevention can have other positive effects:

- Reduce disposal costs.
- Give customers what they want: "green" products and "environmental-friendly" business.
- Reduce future liability associated with the disposal of solid wastes.



**Pure water leads to a longer, healthier life for all.**

## What Is A Pretreatment Program?

### Pretreatment Program Objectives

- To protect the City's sewer system, wastewater treatment plant, and wastewater workers from potential adverse impacts resulting from untreated commercial and industrial wastewater.
- To prevent regulated pollutants from businesses and industries passing through the City's wastewater treatment plant and into Wolf Creek.



### Pretreatment Program Activities

- Identify businesses that must be regulated to comply with the new State and Federal requirements.
- Determine the amount of pollutants that regulated businesses can safely discharge to the sewer system.
- Issue permits to commercial and industrial businesses, as needed.
- Sample and inspect businesses on an on-going basis.
- Evaluate compliance with pretreatment requirements.
- Take enforcement actions, as warranted.



## What Is The City Doing?

- Sampling the City's sewer system to find out how much pollution is coming from homes and how much is coming from businesses.
- Developing "local limits" that establish the amount of certain pollutants that businesses can discharge, and still have the City's effluent comply with water quality standards.
- Surveying all businesses to determine which ones will be required to get a permit from the City to discharge sewage to the City's sewer system.
- Evaluating possible improvements to the City's WWTP.
- Holding workshops to inform the public about what the City is doing, and why, and what the pretreatment program will cost.
- Updating the City's Municipal Code to comply with Federal requirements.



Wolf Creek downstream of Grass Valley's WWTP effluent discharge.