

Wastewater Questions

Q: What is "point source" pollution?

A: Point source pollution originates from a specific location, such as a factory discharge pipe. Point source pollution is typically easy to locate and control.

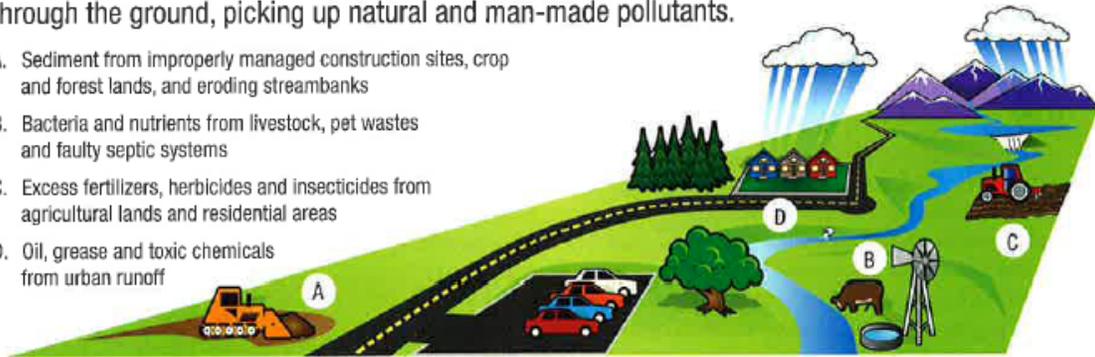
Q: What is "nonpoint" source pollution?

A: Nonpoint source pollution comes from various land use practices, air pollutants, and sewer overflows -- plus daily human activity. It is harder to control nonpoint sources of pollution. An example includes excess farm and lawn nutrients moving throughout the soil and into the groundwater, or the pollutants enter local waters directly through runoff during heavy rains.

Nonpoint Source Pollution: Water Quality's Number One Threat

Nonpoint source pollution is caused by rainfall or snowmelt moving over and through the ground, picking up natural and man-made pollutants.

- A. Sediment from improperly managed construction sites, crop and forest lands, and eroding streambanks
- B. Bacteria and nutrients from livestock, pet wastes and faulty septic systems
- C. Excess fertilizers, herbicides and insecticides from agricultural lands and residential areas
- D. Oil, grease and toxic chemicals from urban runoff



Source: Headwaters Magazine, Colorado Foundation for Water Education, Winter 2012

Q: What does a wastewater treatment plant do?

A: Treatment plants remove impurities contained in wastewater so that the treated wastewater can be safely returned to the environment. This same stabilization process occurs in nature to break down wastewater into its most basic components of carbon dioxide and water, given sufficient time. Common methods of treatment include physical, biological and chemical treatment steps to stabilize the wastewater.

Q: Why is it necessary to treat wastewater?

A: The 1972 Federal Clean Water Act required treatment of the wastewater to protect the water quality. Perhaps the most memorable symbol of those times was the Cuyahoga River in Cleveland, so loaded with industrial wastes that it caught on fire. Municipalities and industries have spent significant amounts of money to help clean up the nation's water over the last 40 years. Today, the water quality problems that were identified in the 1960's have been resolved. However, there are new challenges as science develops a better understanding of the impacts of urbanization and



chemicals. Today we can measure contamination in parts per trillion. That is a hundred fold improvement compared to the detection levels that were in use in 1972. Nonpoint source pollution continues to be difficult to deal with.



On one hand, the public wants the nation's water to be as clean as possible but the cost of every additional treatment is sky rocketing. Public pressure to reduce government spending may threaten the ability of municipalities to fund further improvements in water quality even though the EPA continues to mandate additional regulations that will force building additional treatment facilities.

Q: Where does the water go once it is treated?

A: Treated wastewater is returned to the Arkansas River about a mile below the confluence of the Arkansas River and Fountain Creek.

Q: Are wastewater treatment systems really necessary?

A: Wastewater treatment systems serve primarily to protect the health of the general population by insuring that water supplies remain clean. In today's world, people live a lot longer than they used to and higher population concentrations result in increased organic loading to the waterways from a variety of sources. Modern wastewater treatment systems contribute to a safer, cleaner environment by reducing this organic load and controlling the presence of bacteria and waterborne diseases.



Q: Who runs the wastewater treatment plant?

A: Highly trained, experienced, State-certified treatment plant operators employed by the City of Pueblo are on duty, every day, to oversee treatment plant processes, and to react promptly to any unusual condition. Many controls of treatment processes are highly automated requiring a great deal of technical expertise. Other processes require manual controls which rely on the operators frequent physical presence to observe conditions and make adjustments.

Q: How reliable is the treatment facility?

A: Critical treatment processes are designed with redundant equipment, which means that if a mechanical or electrical component fails, a spare is waiting to take its place. Mechanical and electrical staff members are on-call 24 hours a day in case of a failure that requires their immediate assistance. Maintenance staff aggressively cares for the equipment to predict and prevent breakdowns, further adding to the reliability of the facility.

Q: How is the quality of treated wastewater ensured?

A: Samples are collected and analyzed by laboratory technicians in our on-site, certified laboratory. This information is also added to our operational database. Independent laboratories are used for some analyses that are not cost effective to do in house.

Q: What are biosolids?

A: Biosolids are a safe and beneficial resource composed of essential plant nutrient and organic matter that is recovered from the treatment of domestic sewage in a wastewater treatment facility. Biosolids can be reused and applied as fertilizer to improve and maintain productive soils and to stimulate plant growth if all standards can be met. In Pueblo there are high levels of selenium from natural sources that prevents our biosolids from being used as a fertilizer.

Q: How do I schedule a tour of a Wastewater Treatment facility?

A: Plant tours can be requested. For more information, or to schedule a tour, call 719-553-2880.

Q: Who do I call if I have an odor complaint about a Wastewater Treatment facility near my home or business?

A: Call the James R DiIorio Water Reclamation Facility at 719-553-2880