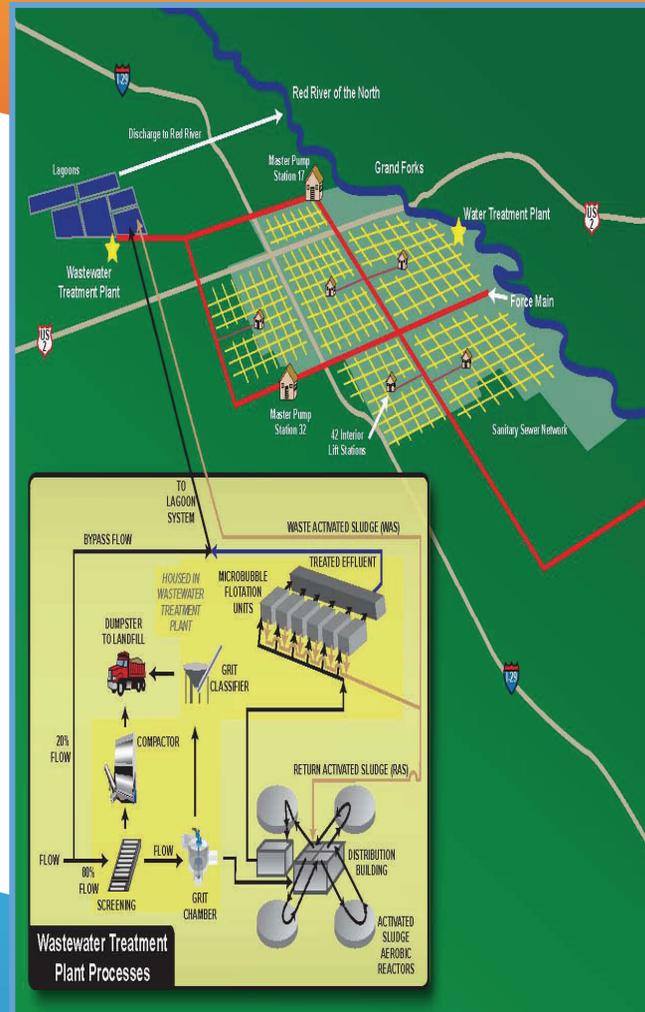


Our Mission Statement

The mission of the City of Grand Forks Wastewater Treatment Division is to treat the wastewater of Grand Forks to effluent quality standards that meet or exceed the clean water standards put forth by federal, state and local government agencies.

It is our goal to achieve this objective in a manner that demonstrates integrity, responsibility, safety and economically-sound practices.

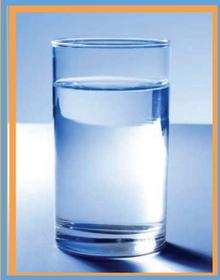


Welcome to the Grand Forks Wastewater Treatment Facility



Wastewater Treatment Plant
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Grand Forks, ND 58203
(701) 787-9131
www.grandforksgov.com

Clean water is essential to life itself.



We can survive about 30 days without food, but only 7 days without water.

While over 70% of our planet is covered by water, less than 1% of that water is available for human use.

It is absolutely essential that we protect our water supply from contamination.

The City of Grand Forks gets its water supply from the Red River and the Red Lake River. It is made potable at the Water Treatment Facility before being distributed for residential and industrial use. Used water is called wastewater and is collected and pumped to the Grand Forks Wastewater Treatment Facility, where pollutants are removed. The treated water is then returned to the Red River and reused by other residents downstream.

The city receives a permit every five years from the State Health Department and the Environmental Protection Agency (EPA) to discharge its lagoon water.

This permit governs the conditions under which the city can send water back into the Red River.

The Treatment Process

The first step in the treatment process is called pre-treatment. The incoming wastewater passes through screens that remove large debris like sticks or rags. The water that passes through the screens then travels through a grit chamber that removes smaller solids like food, sand and stones. Pre-treatment steps are necessary to remove solids that could potentially damage downstream equipment such as pumps and valves. It also removes solids that cannot be broken down biologically. Next is the biological treatment step.

Wastewater that leaves pre-treatment is routed through a series of biological reactors, which allow microorganisms in the wastewater to grow and multiply. These microorganisms feed on the organic waste in the water. The microorganisms also remove much of the nitrogen and phosphorus in the wastewater. This is important because nutrients such as nitrogen and phosphorus promote over growth of plants and algae which can choke a river of valuable dissolved oxygen which fish and other aquatic species rely on.



The Clarification Process

The next step is called clarification. Microorganisms used in the biological step are separated or “clarified” from the clean water. Very fine bubbles are added to the bottom of what are called micro bubble floatation tanks. As the name implies, these tanks use micro bubbles to float the solids (mostly microorganisms) to the top of the tank. The clean, or clarified water, remains at the bottom of the tanks and flows to the Grand Forks lagoon system for final treatment. Grand Forks uses 1,356 acres of lagoons to provide final wastewater treatment. Wastewater from the mechanical plant flows through these lagoons where pollutants are further removed.



The Laboratory at the Waste Water Treatment Facility is certified by the State of North Dakota to perform chemical and biological analysis on wastewater samples. Besides analyzing its own wastewater samples, the lab also accepts outside wastewater samples from neighboring communities that don't have their own testing facilities.