

## **The Treatment Process**

Treating sewage at the Wastewater Treatment Plant is an important, complex process that involves several procedures to ensure all contaminants are removed prior to releasing water back into the environment.

After the big, bulky material is removed at the headworks, sewage goes through primary treatment where it is held in an aerobic digester to allow heavy solids to sink and lighter materials to float. Secondary treatment continues the biological process where bacteria break down different types of organic sources. Tertiary treatment goes beyond the previous two treatments, using effluent filtration to polish the water. The final steps are ultra-violet disinfection and flow measurement.

“We want to be able to ensure compliance with the National Pollutant Discharge Elimination System (NPDES) permit that we have through the state Department of Environmental Quality (DEQ),” said Public Works Director Delora Kerber. “It is a federal requirement that the water going back into the river meets certain standards. We want our discharge water to meet these standards because we strive to be a good steward of the land and water.”

With the eventual expansion and improvements to the plant, city staff would like to see sustainable practices incorporated to reduce the use of chemicals and energy use. Latest wastewater plant technology includes gravity systems instead of pumps, reduction of gas emissions and the use of micro-turbines to save on energy.

“There are a lot of sustainability methods that I would like to see put into the plant,” said Kerber. “And of course odor control is a big priority. We want to find a really good, innovative process to minimize odors at the plant.”

Not only will the firm that is hired improve, expand, and operate the plant, it will also maintain the city’s eight pump stations. Three pre-qualified firms, United Water, CH2M Hill/OMI and Veolia Water North America were selected to respond to a Request for Proposals (RFP).