

## **Improving the City's Waste Water Treatment Plant**

The Wastewater Treatment Plant was originally built in the early 1970's and had improvements made in the late 70's, 80's and 90's. To stay in line with new technology, the city's population growth and an aging facility the plant needs to be upgraded and expanded.

Improvements will be made to the headworks, biosolids disposal and the filtration process. At the headworks, sewage passes through screens and grit chambers that remove large objects, sand and gravel. Bio-solids are nutrient-rich organic materials that are used for soil augmentation fertilizer.

Other improvements will involve expanding treatment capacity and possibly include adding an aeration basin, secondary clarifier and digester. Aeration basins use microorganisms to break down sludge into carbon dioxide and water. Clarifiers separate solids from liquids in waste matter streams and the digester uses a process to break down biodegradable material in the absence of oxygen.

Wilsonville's plant provides screening, primary and secondary treatment, filtration, ultraviolet (UV) disinfection, and aerobic digestion. Liquid bio-solids generated by the plant are land-applied to various agricultural sites in the area for beneficial reuse.

"The plant needs some serious revamping and the future upgrade is two-fold. One is adding capacity and the other is replacing and updating the equipment and processes." said Public Works Director Delora Kerber. "

Improvements will include revamping and expanding the headworks, changes to the odor control system, modifying the processes for additional capacity, and changing the bio-solids handling process.

The overall performance of the treatment plant, as well as the remaining capacity and condition of key equipment and processes, was evaluated between 2002 and 2004 in a Wastewater Treatment Plant Facility Plan to determine the adequacy of the existing facility to meet current and future needs.

The upgrade and expansion of the plant is scheduled to begin in 2011. The City is currently revising a draft Request for Proposals (RFP) that will be distributed to three Design-Build-Operate (DBO) firms. The firms are United Water, CH2M Hill/OMI and Veolia Water North America. The final RFP is scheduled to be distributed to the three firms in September 2010. The DBO firms will have four months to submit their proposals.

To help pay for the improvements, the City will be increasing sewer rates. Sewer rates are based on water usage during the winter months when the city does not monitor outflows from homes only inflow and winter excludes outdoor watering. In addition, system development charges, which are impact fees developers pay when they receive a building permit, will also increase.