

WASTEWATER TREATMENT PLANT UPGRADE

STATE PROGRAM: Idaho Department of Environmental Quality

ASSISTANCE RECIPIENT: City of Weiser

ASSISTANCE AMOUNT: \$6M



PROJECT DESCRIPTION

The City of Weiser received \$6 million in CWSRF financing to upgrade its wastewater treatment plant to meet the demand presented by increasing population and more stringent discharge requirements to the local Snake River. The energy efficient upgrades that are part of the project will create energy savings of almost 665,000 kilowatt-hours and \$45,000 per year. Cost savings from reduced energy bills will rapidly offset the initial cost difference of the green components. This upgrade project includes biological phosphorus removal by converting an existing aeration tank to anaerobic and anoxic conditions. Other upgrades included installing a new dissolved oxygen control system, replacing aeration blowers, and adding new diffusers. Chemical treatment was also installed for additional phosphorus removal.

The CWSRF's Green Project Reserve program offered opportunities to upgrade Weiser's wastewater system that would provide additional energy and cost savings. The opportunities identified and recommended by the project's design team included installing fine-bubble diffusers throughout the plant with automated dissolved oxygen control along with premium energy efficient blowers and pumps equipped with variable frequency drives to ensure the equipment operates at optimum speeds. These upgrades not only save the facility energy and operating costs, but also increase the quality of treatment for the plant while raising the treatment capacity needed for the growing community.

To read more about this case study, please visit https://www.epa.gov/sites/default/files/2021-02/documents/2020_pisces_compendium.pdf.