

The Wastewater Treatment Process at the Rocky Creek Plant

Preliminary treatment at the Rocky Creek Plant entails the removal of larger solids and grit out of the wastewater through a process involving three bar screens and four grit chambers.

The Rocky Creek facility has no primary treatment. The wastewater flows directly into three aeration basins. The MWA's advanced secondary treatment of wastewater utilizes activated sludge processes as part of an advanced biological secondary treatment system. The wastewater leaving the aeration basins enters six final clarifiers. The purpose of the final clarifiers is to settle the sludge and return (wastewater) back to the aeration basins. Some of the treated wastewater leaving the final clarifiers is sent through eight sand filters, so this water may be used for different purposes throughout the plant, while saving potable water. The treated effluent from the final clarifiers is disinfected with chlorination and de-chlorination prior to disposal into the Ocmulgee River. In doing so, the treated wastewater is safe and approved for disposal into this receiving stream, according to the provisions of the Authority's regulated permits for this form of direct discharge into a water body.

Proper handling of Biosolids at the Rocky Creek Plant

Periodically, a certain percentage of sludge has to be wasted when coming out of the activated sludge system. The waste sludge from the final clarifiers is pumped to gravity thickeners. The purpose of these gravity thickeners is to thicken the sludge in order to avoid excess water from entering the aerated holding tanks.

The sludge from the gravity thickeners is pumped into two aerated holding tanks. After proper aeration, the sludge is sent through the sludge dewatering process. The sludge dewatering process involves the use of belt filter presses. During this process, the liquid sludge is converted into a solid sludge – called biosolids – after exiting the belt filter presses.

The biosolids from the belt filter presses are held in two sheds on site at the Rocky Creek Water Reclamation Facility, where they are mixed with biosolids coming in from the Lower Poplar Water Reclamation Facility, prior to sending out to farm land throughout the surrounding area.