

## 1 Headworks

The Headworks receives raw wastewater from several sewer trunk lines that come into the plant. The Headworks contains screens and a grit removal system that remove inorganic solids and grit. The material that is removed is washed, compacted and hauled to the landfill. Foul air from inside the Headworks is captured and treated through nearby biofilter towers to remove odors.



## 2 Influent Pump Station

The Influent Pump Station pumps screened wastewater from the Headworks up to the level of the treatment facility and to the Bioreactors on the east side and west side of the plant. Foul air from inside the Influent Pump Station is captured and treated through nearby biofilter towers to remove odors.



## 3 Bioreactors

The Bioreactors receive screened wastewater from the Influent Pump Station. The Bioreactors are eight separate concrete basins (four on the east side of the plant and four on the west) that are divided into zones, some of which are aerated by diffusers in the bottoms of the basins. As the wastewater flows through the Bioreactors, the organic contaminants and nutrients are removed by microorganisms that grow in suspension in the wastewater.



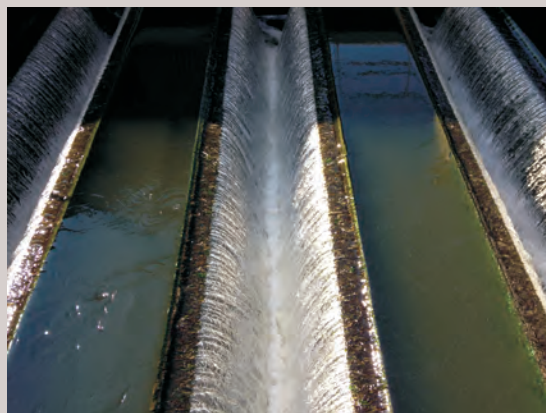
## 4 Clarifiers

After treatment in the Bioreactors, the wastewater flows to one of nine circular concrete Clarifiers. The solids suspended in the water settle to the bottom of the Clarifier and clear water flows over the weirs around the top.



## 5 UV Building

Water from the Clarifiers flows to the UV Building, where it flows through channels containing banks of ultra-violet (UV) lamps. As the water flows around the UV lamps, bacteria and other microorganisms in the water are exposed to UV radiation, effectively killing them. This treated water is then discharged through a pipeline to Utah Lake. Some of the water is used in the plant utility water system for non-potable uses, such as housekeeping and irrigation.



## 6 RAS Pump Stations

The solids that settle to the bottom of the Clarifiers are called activated sludge. Part of the activated sludge is removed from the process, or wasted, to the Aerated Sludge Holding Basins (waste activated sludge or WAS). The rest of the activated sludge is pumped back to the Bioreactors to maintain the growth of microorganisms (return activated sludge or RAS). The pumps which convey the RAS and WAS are located in the RAS Pump Stations.



6400 North



## 8 Dewatering Building

Excess water is removed from the waste activated sludge (WAS) by belt presses located in the Dewatering Building. Dewatered sludge is loaded in trucks for use in the composting operation. Water removed from the WAS is returned to the Headworks. Foul air from inside the Dewatering Building is captured and treated through a nearby activated carbon filter to remove odors.



## 11 Generator Building

The Generator Building houses three 2.5-megawatt diesel-fired generators that provide power to continue operating the plant during power outages.



## 9 Blower Buildings

The Blower Buildings house the high-speed turbo-blowers that provide the compressed air required to aerate the Bioreactors. Turbo-blowers are quieter and more energy efficient than conventional blowers.



## 12 Operations Building

The Operations Building includes the supervisory control and data acquisition (SCADA) system, which is the computer-controlled operational center of the plant. All operations of the plant, including site security, can be monitored and controlled through the SCADA system. The Operations Building also houses a fully equipped, State certified laboratory that can perform all water quality testing and analysis related to wastewater treatment.

## 13 Maintenance Building

The Maintenance Building is the center for all maintenance functions for the plant. It includes truck and equipment maintenance bays, offices, training rooms and storage areas.



## 10 Composting Operation

Dewatered sludge is mixed with green waste and processed under Gore-Tex covers to form compost. The compost is then sold as a soil amendment.



## 14 Lab Building (Future)

The District is building a new, self-contained Lab Building with a fully equipped, State certified laboratory that can perform all water quality testing and analysis related to wastewater treatment. Completion is scheduled for 2015.



## 7 Aerated Sludge Holding Basin

The Aerated Sludge Holding Basin serves as a holding basin to regulate the flow of waste activated sludge (WAS) to the Dewatering Building. The basins are aerated to reduce odors.



## 15 Administration Building

The Administration Building contains the management and administrative offices and the meeting room for the District's Administrative Board.