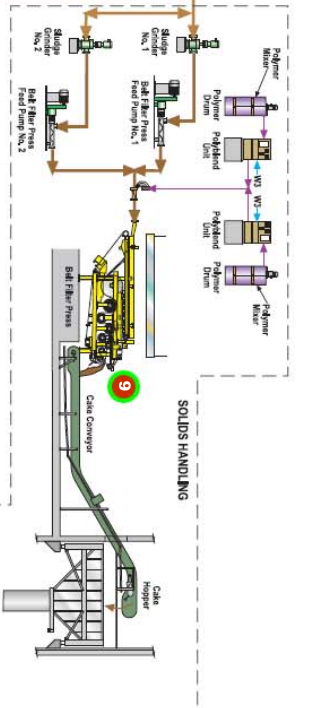
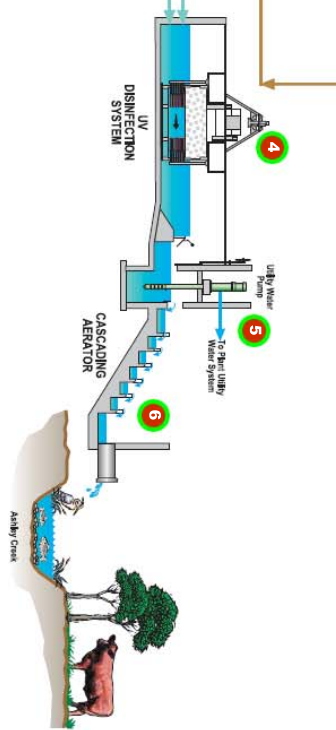
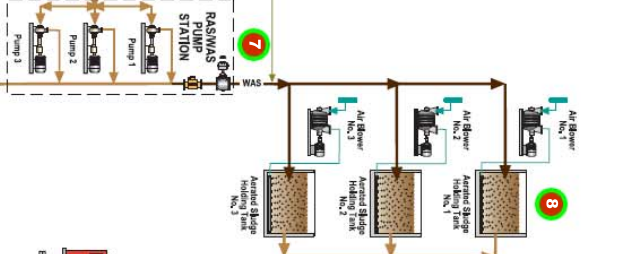
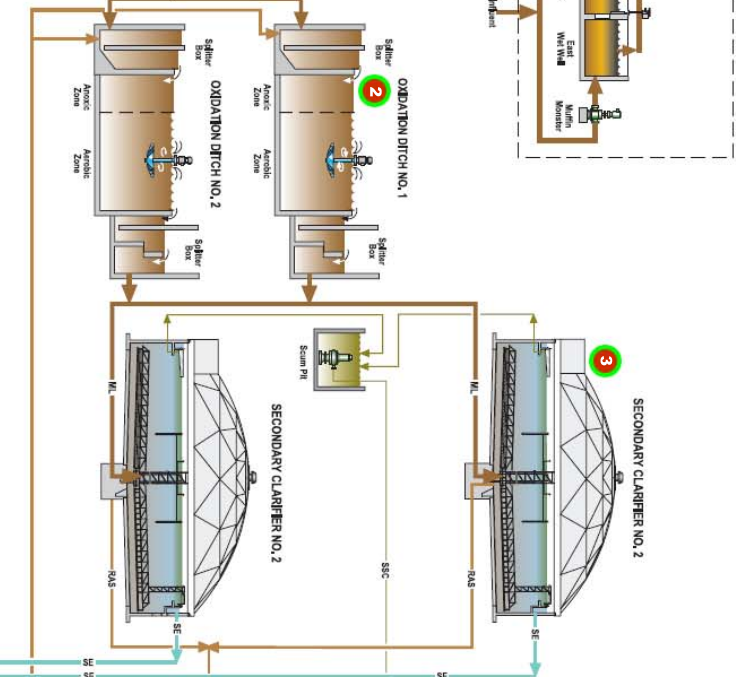
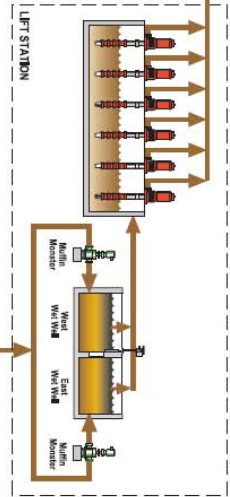


**HEADWORKS**



**LEGEND:**

- RFP Ball-Fiber Press Feed
- EF Ball-Fiber Press Feed
- GR Grit Return
- GS Grit Slurry
- GRT Grit Return
- RAS Return Activated Sludge
- RS Raw Sewage
- SSC Secondary Clarifier
- WAS Waste Activated Sludge



## 1 Headworks

Flows into the plant are measured in a parshall flume using an ultrasonic flow sensor. Large objects and rags are removed by the bar screen. The vortex grit chamber removes sand, grit, and other inorganic matter. Area septic haulers have a specially designed pad for waste disposal.



## 2 Oxidation Ditches

The oxidation ditches are the heart of the treatment process. Wastewater is aerated for 24 hours allowing microorganisms to breakdown and consume much of the organic material and NH<sub>3</sub> in the wastewater.



## 3 Final Clarifiers

Biological organisms and other solids settle out in the final clarifiers and are removed. The clarified water and solid material are treated in separate processes from this point.



## 4 Ultraviolet Disinfection

Trojan 4000 medium pressure, ultraviolet light system is used to kill virus and bacteria in the wastewater.



## 5 Utility Water Pumps

Once the water is fully treated and disinfected, some of it is used for wash down and irrigation purposes at the treatment facility. The pumps maintain a constant water pressure for use in the plant.



## 6 Cascade Aerator

The cascade aerator restores oxygen to the water so that it can support fish life when it is discharged to Ashley Creek.



## 7 RAS/WAS Pump Station

The RAS/WAS pump station is used to remove solids that have settled out in the final clarifiers. The solids are either returned to the oxidation ditch by the RAS (return activated sludge) pump or pumped to the aerated sludge holding tanks using the WAS valve.



## 8 Aerated Sludge Holding Tanks

The sludge holding tanks provide air to WAS (waste activated sludge) while waiting to be dewatered.



## 9 Belt Filter Press

The Andritz 1 meter belt filter press dewateres the sludge to a consistency of approximated 16 to 20 pound solids. The solids are conveyed to a dump truck for disposal at the landfill.

