



AQUA designed a major facility upgrade for Orem's treatment facility. As part of this upgrade, a facility analysis was completed looking at both biological and hydraulic capacity. The oldest part of the facility was a trickling filter treatment system. An oxidation ditch was added to the process several years ago and the flow could be either run in parallel or in series. Based on the plant evaluation, trickling filters were abandoned and the secondary clarifiers used for the trickling filter were converted to primary clarifiers. This relieved a hydraulic bottleneck at the primary clarifiers. Additional biological capacity was required because of the loss of the trickling filters and for future growth. It was determined to install a new oxidation ditch. Because of the perceived need to reduce nutrients, the new oxidation ditch was designed to do biological nutrient removal.

Client: City of Orem
Reference: Chris Tschirki, Orem Public Works
Contact: P: 801.229.7510
Location: Orem, UT
Dates: 2012
Capacity: 13.5 MGD
Cost: \$14.5M

Features

- ✓ Biological Nutrient Removal
- ✓ New Thermophilic Digester with a Plug Flow Reactor
- ✓ Class A Biosolids for Reuse
- ✓ Primary Clarification
- ✓ Waste Activated Sludge
- ✓ 50% Reduction of Solids Dewatering and Disposal
- ✓ 280,000 Gallon Bio-Reactor
- ✓ 120ft Dia Secondary Clarifier
- ✓ UV Disinfection

