

Walnut Creek Water Pollution Control Plant

City of McDonough



*The Wastewater Plant has won 5 Gold awards out of the last 7 years for 100% compliance and won our third prestigious Platinum award for 100% compliance without a violation .

*The Wastewater Plant Laboratory has been recognized for successful completion of the EPA and EPD laboratory testing certification program each year since 2005

These are some of the things that are required each year by the Wastewater staff, with the exception of the SCADA emergency calls. None of these figures will ever go down. They can only increase from year to year. This is still a small portion of what we do, but I consider this a good snapshot of the entire picture.

5252 samples pulled

5304 lab tests run

2496 filters washed and dried

4056 normal trips to pump stations

676 full wash down and cleaning of floats at pump stations

471 Responded to emergency calls by the SCADA system

2348 grease fittings per year

15,840 data points entered into 12 monthly reports

542 times spreader truck filled and taken for land application

The Orbal

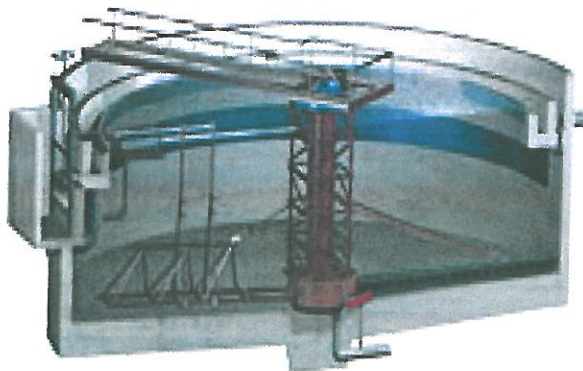


Orbal Multichannel Oxidation Ditch for Wastewater Treatment

The typical Orbal® multichannel oxidation ditch has three concentric channels. The outer channel, where the majority of the process 'work' takes place, is an aerated anoxic reactor. The DO of the second channel operates in a swing mode to vary with daily load conditions. The last channel maintains a polishing mode removing remaining BOD and ammonia before the flow exits to final clarifiers. The mechanical backbone is its unique aeration disc with its high oxygen transfer and unmatched mixing efficiency.

The Clarifier

Circular clarification is one of the most popular and proven processes used to treat contaminants for removal in wastewater. While some systems settle solids out of the liquid stream by gravity, others use flotation methods to float the solids to the top to be skimmed away.



The Digester

Solids are pumped from the bottom of the Clarifies to the Digester to be broken down. This is the final step for treating the solids before they are sent to the belt press to be de-watered and prepared for land application as fertilizer



The Sand Filter

Clarified water is gravity flowed to the sand filters in the final process to remove any large particles before passing thru a UV treatment and discharged back into the creek.



Operators at Work!



Lift Station/Pump Station Package Systems

Sewage lift/pump stations are used for pumping wastewater or sewage from a lower to higher elevation, particularly where the elevation of the source is not sufficient for gravity flow and/or when the use of gravity conveyance will result in excessive excavation and higher construction costs.



Sewage lift stations/pump stations may be used as a matter of economics or to overcome inadequate hydraulic head when it is obvious that no other solution is practical. For instance, it may be more economical to utilize a sewage pump station to pump or lift the sewage over a ridge and let it flow by gravity

to a sewage treatment plant, or to elevate sewage to pass through a sewage treatment system by gravity.



Wastewater flows into the tank from homes and industries. It is then pumped to a higher elevation through pipes and discharged into a gravity flow line that will carry the wastewater to the sewage plant.