



**CASE STUDY**

# 630-Tons of Sand & Grit Removed from Oxidation Ditches

## Florida Sand and Grit Grant Program Covers Restoration Costs

MOUNT DORA, FLORIDA

### PROBLEM

Two oxidation ditches at two wastewater treatment plants serving the City of Mount Dora were due for cleaning, having accumulated a significant amount of sand, grit, and debris over 15-years. This loss of capacity was increasing energy costs and reducing efficiency at these treatment plants.

U.S. Submergent Technologies' (USST) knowledgeable crew was called-in with our versatile Combination<sup>3</sup>® Truck, able to handle multiple setups to complete these projects.

### SOLUTION

A large oxidation ditch measuring approximately 50-feet wide by 330-feet in length was the first structure our crew tackled. While this oxidation ditch was in full operation, USST utilized the Combination<sup>3</sup>® Truck's downhole pump and 49-foot extendable boom combined with our GritGone Process® to remove approximately 287-tons of sand and grit material. The tank did not have to be drained down or taken offline for our crew to perform the cleaning.

The second oxidation ditch measured approximately 40-feet wide by 130-feet in length, and a drain down was necessary to effectively reach the material. Our experienced crew safely executed confined space entry protocols and procedures to clean this structure.



USST's Combination<sup>3</sup>® Truck functions as a standalone cleaning system in challenging, hard-to-clean environments. Our capacity restoration services help extend the life of existing infrastructure, saving time and money.

### RESULTS

In total, approximately 630-tons of material was removed from these two structures and disposed of off-site, restoring capacity, efficiency, and flow to the City's treatment plant. By restoring capacity USST estimates the City saved over \$1.5 million in capital expense to rebuild the treatment capacity. In other words, the cost of maintaining existing treatment volume is much less than re-building the oxidation ditches treatment volume.

USST worked with the City of Mount Dora to take advantage of Florida's Sand and Grit Grant Program, which makes it possible for publicly owned facilities averaging 3MGD or less to address the issues of sand and grit accumulation by reimbursing 50-100% of restoration costs.

To learn more about this program call (941) 404-3405 or email [mroberts@ussubmergent.com](mailto:mroberts@ussubmergent.com).



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