

## EXCESSIVE SLUDGE AT A WASTEWATER PLANT

The county contacted EWS to provide a Class IV Operator of Record. A problem identified was excessive sludge, which resulted in increased operational costs, air quality issues, and OEPA violations.

### PROBLEM

- Excessive sludge slowed the facility's ability to process sludge; the dewatering process became a weeks-long schedule
- Sewage odor for the surrounding homes and business owners
- Increased costs for employee overtime
- Increased costs for hauling dewatered sludge to the landfill
- Increased costs if treating the sludge with chemical process
- Septic sludge is more difficult to treat
- OEPA gets involved if the sludge overflow goes into the stream, which will happen if left untreated
- OEPA violations if total suspended solids (TSS), carbonaceous oxygen demand (CBOD) and ammonia test results are above the facility's NPDES permit limits.

### SOLUTION

The EWS team:

- Recommended the Bactevore™ process as no additional expenses would be required
- Educated the county wastewater administrative staff on the Bactevore™ process
- Trained county staff on Bactevore™ process

### RESULT

- Bactevore™ was started immediately – it takes time to grow the right bacteria
- Weeks 1–5: no overflow discharged into stream
- Week 1: the odor issue was eliminated
- Week 1 end: sludge volume reduced by 10%
- Week 2: overtime reduced by 30%, from 3 overtime shifts to 2 overtime shifts over 7 days
- Week 3: corrected some pumping issues
- Week 3: sludge volume reduced by 26%
- Week 3: overtime reduced to one 8-hour overtime shift in a 5-day week
- Week 4 end: sludge reduction calculated to be 53%
- Week 5 end: the Bactevore™ sludge processing became a daily process, allowing the sludge to be processed daily

Processing sludge with the Bactevore™ process allowed for a consistent sludge process, a return to scheduled sludge hauling, reduced costs, a substantial reduction in overtime, and the avoidance of OEPA violations.

