



Derry TMA Clearwater Energy Enhancements

Derry Township Dauphin County

Bassett Engineering Inc.

Primary:

Brown and Caldwell

Subconsultant:

Bassett Engineering

Project Cost:

\$13,264,000

Project Team:

Britt Bassett, PE
Keith Miller, PE
Sean McCormick, EIT
Connor Bassett, EIT
Ira Fedder, EIT

Contractors:

Eastern Environmental Contractors
Eberbook Excavating

Timeline: **2020-2022**

Bassett Engineering

1440 Broad Street
Montoursville, PA 17754

Phone: 570-368-2131
info@bassetteng.com

Bassett Engineering (BE) is a subconsultant to Brown & Caldwell (B&C) tasked with securing DEP Ch 102 and DEP Air Quality Management permits as well as Site/Civil engineering including survey stormwater management, land development and buried process piping for the Energy Enhancement Improvements at the Clearwater Wastewater Treatment Facility for Derry Township Municipal Authority as part of their \$15 million energy enhancement program.

The project scope included the design of CHP (combined heat and power) facilities to reduce energy costs, increase plant capacity, and increase beneficial reuse of produced process biogas which currently is being flared. Two new biogas-fueled reciprocating engine generators are being installed. They, along with one existing, will combust the process biogas to produce heat and electricity which will integrate into the plant's existing electrical and heating systems and help meet required daily energy demands. Power production is estimated to increase from 280 kilowatts to 1,600 KW due to the upgrade. This will reduce DTMA's reliance on fossil fuel based powerplant electricity and minimize their carbon footprint. Related Plant improvements include new gas conditioning, gas storage, and a secondary digester upgrade.

Planned future projects include a new 1.3-million gallon egg-shaped anaerobic digester, along with enhanced organics receiving, dual Membrane cover, sludge dewatering/drying upgrades and expanded offsite food waste receiving.



Bassett Engineering Inc.