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//CONTACT

BEST LINE EQUIPMENT

140 HAWBAKER INDUSTRIAL BLVD

STATE COLLEGE, PA 16803

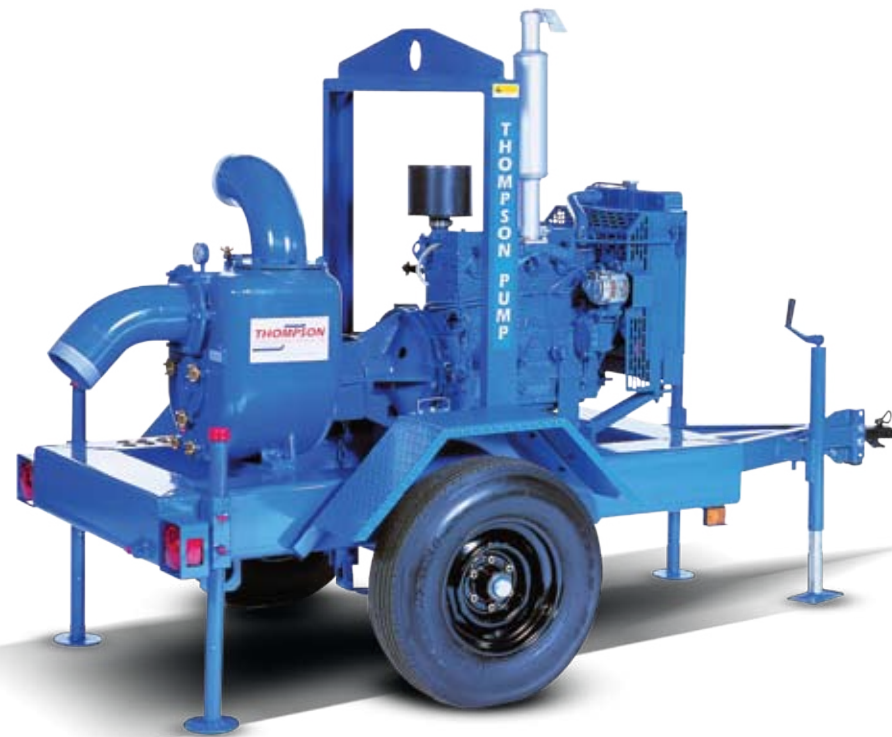
866-562-0874

KURT WEIBEL

MANAGER, INDUSTRIAL PUMP & POWER DIVISION

814-280-5879

KWEIBEL@BESTLINEINC.COM



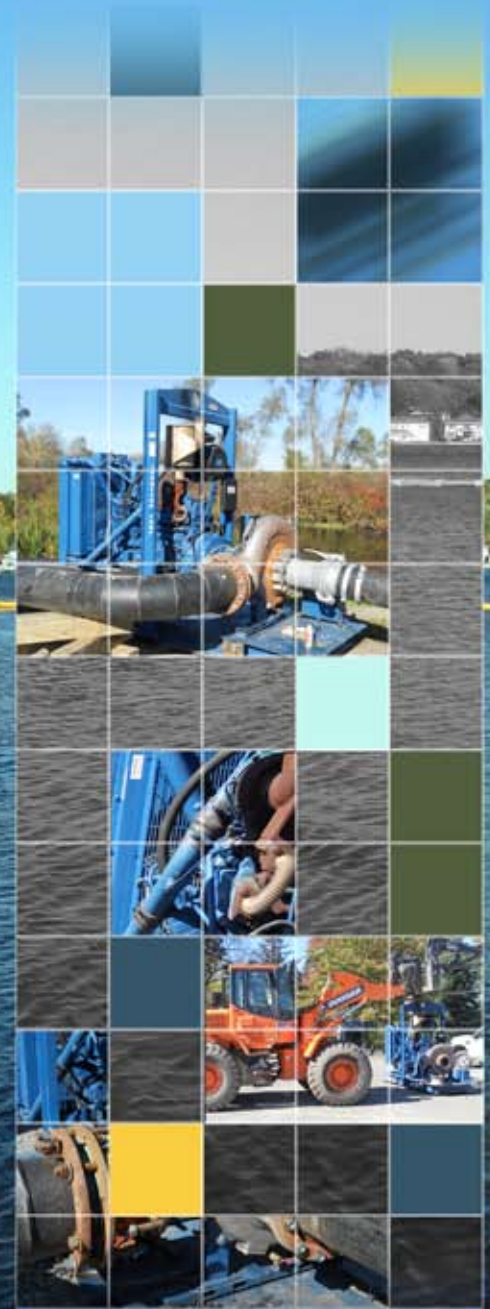
//CONNEAUT LAKE REVITALIZATION PROJECT

BEST LINE
EQUIPMENT

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PA FISH & BOAT
COMMISSION

SPRING 2013



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//CASE STUDY CONNEAUT LAKE



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COMPANY PROFILE

The Pennsylvania Fish and Boat Commission (PFBC) was established in 1886 as an independent Commonwealth agency by the Governor to protect, conserve, and enhance the Commonwealth's aquatic resources and provide fishing and boating opportunities.

BUSINESS SITUATION

Conneaut Lake is the largest natural lake in PA. For the size of the lake, it has an oddly shallow depth in most areas. Most of the time it is around 15 to 20 feet deep. However, in some places it has been known to reach over 50 feet, with its greatest depth at 81 feet. The scenic, natural lake draws many locals, and its lack of power restrictions draws a good number of powerboat enthusiasts.

In 2012, the Conneaut Lake community wanted to improve the area's appeal, so they initiated the Lake Conneaut Revitalization Project. As part of this project, the boat launch access area, located at the confluence of Inlet Run and Conneaut Lake, is undergoing a face-lift, or should I say, sediment lift. The boat launch area depth is as low as two feet in some spots. Boat owners and enthusiasts are unable to gain access to the water.

The PFBC needed to dredge a channel 80 feet wide by 350 feet long, and approximately six feet deep.

TECHNICAL SITUATION

After a detailed review, it was determined the PA Fish & Boat Commission would need to remove up to six feet of sediment for an area surrounding the boat launch of about 100 meters. This effort would require dredging the lake floor and displacing it to another location, while relatively protecting the surrounding area and lake water.

The PFBC began the project by engaging engineer John Sinclair. After designing the scope of the project, it was decided the PFBC would purchase an IMS Dredger. They also proceeded to build a sentiment pond and define the boundaries for the dredging. A temporary pipeline would need to be run through Inlet Run, which would carry the material dredged from the access area to the retention basin.

THE CHALLENGE: Move the sediment nearly three-quarters of a mile from the lake to the new retention basin.

THE PLAYERS

The PFBC needed an engineering solution to effectively move this sediment to the retention basin. They decided to work with Best Line Equipment and Thompson Pump.

Best Line Equipment, based in State College, PA, is the area's premier equipment rental, sales, service and parts provider serving a region larger than the state of Pennsylvania. For more than 25 years, founder and CEO, Michael Houseknecht, has built a successful



//ABOVE

THE RETENTION POND, LOCATED NEARLY A MILE AWAY WOULD BE HOME TO THE MANY TONS OF SEDIMENT MOVED FROM THE LAKE.

//BELOW

TWO THOMPSON PUMP DRY PRIME JET PUMPS WERE USED IN THE PROJECT.



11-location equipment business serving the industrial, oil & gas, construction and residential industries.

“Best Line Equipment, Thompson Pump and the PA Fish & Boat Commission worked together to design and execute a creative and reliable plan. The project was a total success.”

- Adam Houseknecht
Best Line Equipment



As an authorized dealer, Best Line Equipment recommended Thompson Pump, a 42-year old, family-owned company based in Port Orange, Florida, a full-service manufacturer and provider of high quality pumps, pumping equipment and engineering expertise for the toughest dewatering, bypass and emergency pumping applications. Since 1970, Thompson Pump has assisted clients worldwide with pump rentals, sales, service, repair, design, installation and operational support.

THE SOLUTION

Best Line Equipment, in collaboration with Thompson Pump, was able to supply the comprehensive system and support that PFBC desired.

Typically, a true dredging pump is specially designed for pumping highly abrasive materials and large solids. Upon reviewing the project, Thompson Pump engineers concluded the dredging spoils for this project consisted of mainly silt and shells, thus allowing the use of modified centrifugal jet pumps to accomplish the project. The pump ends were treated with a gas nitrating hardening process that afforded the ability to pump the abrasive silt laden dredging spoils that would cause extreme deterioration to a standard pump end. Furthermore, a pump with a higher discharge pressure was used to move the sediment through the discharge line at a higher velocity, eliminating the potential of the spoils settling and producing clogs.

Best Line Equipment connected 12" High Density Polyethylene (HDPE) pipe to the PA Fish and Game Commissions new IMS Dredge machine. The HDPE pipe was fused together in 40-foot increments using a McElroy MegaMC 1648 fusion machine. More than 3,200 feet of pipe was laid between the first and second pump, and from the second pump to the discharge area.

While running 10 hours per day, five days a week, and 3,500 gallons per minute, the team needed about eight weeks to complete the project.

THE RESULT

The PFBC is thoroughly pleased with the success of the project. Kurt Weibel, Manager of Best Line's Industrial Pump & Power Division, says, "Best Line Equipment's plan and execution was flawless. We're looking forward to many more of these opportunities."

