

# PA DEP Small Drinking Water Systems Engineering Services Program (ESP) Case Study

Client Name: Laporte Borough Public Water System  
Location: Laporte Borough, Sullivan County  
Project Name: Water System Improvements



#### Background:

The Laporte Borough Public Water System serves approximately 500 people through 200 service connections with an average demand of 33,500 gallons per day (gpd) through a spring (Northwest Spring) and well (Lake Mokoma well) source. Treatment consists of chlorination and corrosion control and is performed at the standpipe tank building. Treated water is stored in a 150,000 gallon steel standpipe from which it flows to the distribution via gravity. There are two (2) distribution zones in the Laporte PWS. The Lake Mokoma Zone serves approximately ten (10) houses in the winter and up to eighty (80) in the summer. The Town Zone serves the elevated portion of the Borough that includes the county high school and a nursing home.

#### Public Health Challenges:

The well water is currently pumped through the four-inch (4") transite asbestos cement (AC) main into the Spring Reservoir, and is subsequently pumped from the Spring Reservoir to the storage tank on demand. The 4" main also serves as the distribution main to the Lake Mokoma Zone. Since 1995, the 4" main has experienced problems with breakage.

#### Capacity Issues:

**Technical** – The existing transmission main is susceptible to line breaks and also acts as the distribution main to the Lake Mokoma service area.

**Managerial** – Laporte Borough could not effectively operate and maintain the system due to the increased maintenance requirements.

**Financial** – Due to the small customer base, Laporte Borough had limited financial capabilities to raise capital funds for a transmission line replacement.

#### Actions:

The ESP provided engineering design services for the construction of a new four (4) inch pvc transmission main from the Lake Mokoma Well to the Spring Reservoir (4,600 linear foot) and a new six (6) inch pvc distribution main from the finished water standpipe to the Lake Mokoma service area (5,000 linear foot). The design services included permitting, contract documents, construction administration, and funding assistance. The project was funded by a low interest loan through the Pennsylvania Infrastructure Investment Authority (PENNVEST) and a State and Tribal Appropriations Grant through the United States Environmental Protection Agency.

#### Outcomes:

The constructed water distribution and transmission mains allow Laporte Borough to provide continuous service to the Lake Mokoma zone as well as improving the fire protection. The Borough anticipates a reduction in the annual operation and maintenance costs for the distribution system.



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