

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

Client Name: Maple Lane Community Association
Location: Middle Smithfield Township, Monroe County
Project: Technical Deficiency Response



Background:

The Maple Lane Community Association, Inc. is a small residential community with an approximate population of thirty five (35) people residing in four (4) townhouse clusters containing twenty (20) units. The community is served by its own public water system. The source of supply is Well #1, which reportedly supplies approximately 4,300 gallons per day. Water treatment consists of disinfection with sodium hypochlorite followed by storage in four (4) hydropneumatic storage tanks. The well is located in a lawn area near the first townhouse with the treatment and storage building nearby.

Public Health Challenges:

The Association submitted a PWS Application in July 2001 for needed improvements to their treatment system. In October 2001 the NERO identified nine (9) deficiencies in a Technical Deficiency Letter that need to be addressed before the permit can be considered. Subsequent correspondence could not resolve the deficiencies. On January 27, 2003 the NERO issued a Pre-Denial Letter indicating the permit application would be denied if all deficiencies were not addressed.

Capacity Issues:

Technical – The Technical Deficiency letter was reviewed. The existing system does not meet the required chlorine contact time for disinfection prior to distribution to the first customer on the system, additional valving was needed to isolate the individual hydropneumatic tanks, and an emergency generator was needed as a reserve power supply.

Managerial – The Operation and Maintenance of the property as well as the water system is managed by NEPA Management Associates. NEPA tried to answer the deficiency letter but needed the services of a Professional Engineer.

Financial – The Association needed to obtain funding to implement the needed improvements. The small customer base made it difficult to require the Association to distribute the cost to all of its members in a one time fee.

Actions:

The Technical Deficiency Letter was reviewed and modifications to the existing design were made. A response to the NERO Technical Deficiencies Letter was formulated and submitted to PADEP for review and comment.

Outcomes:

A Public Water Supply Permit was issued by the Department and the Association obtained a loan from a local bank to implement the proposed improvements. Specifications were completed for the proposed improvements and submitted to the Association. Local contractors were contacted and the Association is currently awaiting the bid results. The proposed improvements will bring the system into compliance with the Safe Drinking Water Act.



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