

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

Client Name: Eastville Community Water Association
Location: Greene Township, Clinton County
Project: GUDI Feasibility Study

Background:

The Eastville Community Water Association (ECWA) Public Water System serves approximately 63 people through 23 service connections with an average demand of 4,400 gallons per day (gpd). Forestry Spring serves as the only water supply source. Treatment consists of corrosion control and disinfection. Treated water is stored in a 16,000-gallon steel tank, which is buried adjacent to the treatment building.

Public Health Challenges:

The Forestry Spring water has been classified as groundwater under the direct influence (GUDI) of surface water. It is considered unfiltered surface water and the current treatment system does not meet the requirements of the PA Filter Rule.

Capacity Issues:

Technical – The source is providing a sufficient yield and has met all Surface Water Identification Protocol (SWIP) excluding the microscopic particulate analysis (MPA) portion of the testing because of the presence of diatoms and algae. The source must be filtered, abandoned, or brought into compliance with the PA Filter Rule.

Managerial – ECWA could not effectively operate and maintain the system due to insufficient volunteer labor and the increased regulatory requirements. As a result of source water deficiencies, PADEP is preparing a consent order and agreement.

Financial – Due to the small customer base, ECWA had limited financial capabilities to raise capital funds for source rehabilitation, additional treatment or new source development. Funding is being pursued to help complete the improvements necessary to bring the system into compliance with current regulations.

Actions:

A Feasibility Study was completed to determine the most viable alternative to treat the spring water source or develop a new groundwater source to provide safe drinking water. Options evaluated included redevelopment of the spring source, development of ground water sources, and filtration of the spring water source. ECWA utilized this document as an important tool for making decisions concerning the long term viability of the Public Water System.

Outcomes:

The Feasibility Study provided an assessment of the existing water system, evaluated technical, managerial, and financial capabilities, projected future consumption and demands, and identified and evaluated alternatives to meet compliance requirements. ECWA is currently pursuing rehabilitation of the Forestry Spring as well as development of a new well source. Design services will follow to provide ECWA with an abundant and safe drinking water source to meet current and future customer needs 365 days a year.



Forestry Spring



Treatment Building & Tank

