

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

Client Name: Wells Tannery Water Supply  
Location: Wells Township, Fulton County  
Project Name: Well Development Project



#### Background:

The Wells Tannery Water Supply (WTWS) Public Water System serves approximately 88 people through 42 service connections with an average demand of 8,000 gallons per day (gpd) through a spring source. Treatment of the spring water consists of chlorination. Treated water is stored in a 96,000 gallon underground concrete reservoir from which it flows to the distribution via gravity.

#### Public Health Challenges:

The primary source, Sprowl Spring, has been determined to be groundwater under the direct influence of surface water (GUDI) by the Pennsylvania Department of Environmental Protection (DEP) based on Surface Water Identification Protocol (SWIP) testing.

#### Capacity Issues:

**Technical** – The source is not providing sufficient yield at times and has been deemed a GUDI, therefore, does not meet current regulations without providing further treatment.

**Managerial** – WTWS could not effectively operate and maintain the system due to the increased regulatory requirements.

**Financial** – Due to the small customer base, WTWS had limited financial capabilities to raise capital funds for additional treatment or new source development. Each member pays a flat rate to cover the water system expenses, and operation and maintenance costs are eliminated through volunteerism of its members.

#### Actions:

A Feasibility Study determined that a new groundwater source was the most viable alternative to bring the system into compliance. Hydrogeologic and engineering design services were completed for the design of two (2) new ground water sources. The design included the transmission main from the well sites to the treatment building (300 linear foot) as well as a control panel for well pump operation and water level controls. Two (2) new wells were constructed to supply 10,000 gpd and 7,000 gpd. They have been declared “groundwater” by DEP after SWIP testing.

#### Outcomes:

The recently constructed groundwater sources are operational and provide an abundant and safe drinking water source to meet current and future customer needs 365 days a year.



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