

Sewer and Water

Sewer System

Due to the strategic location of Penn Township which literally wraps around Selinsgrove, the Municipal Authority has been able to extend service to many areas by hooking into Borough lines at different locations which connect to the Sewage Treatment Plant on the Isle of Que. As a result, the Authority is able to serve areas of the Township that are not connected to one another, yet function as part of the same system.

The system contains five separate sewer line areas:

- **Wedgewood Gardens/Wedgewood Drive/Devon Court:** south of Selinsgrove.
- **Clifford Road/Salem/Route 522/Salem Glen:** west of Selinsgrove and connected to Borough lines by a long gravity line off Clifford Road that runs to Sassafras Street connection.
- **Ridgeview/Dogtown/Meadowview:** north of Selinsgrove with direct connection to Borough line at 18th Street.
- **Burgess/Belmar (18th Street South):** immediately west of Selinsgrove with direct connection to Borough line at 18th Street.
- **Harris Development (18th Street North):** immediately west of Selins-

grove with direct connection to Borough line.

Future connections in developments contiguous to existing population clusters are quite feasible given the "dispersion" of this system. In each case, expansion can be logically predicated on the critical mass of customers required to offset to the cost of new lines, except in those cases where a neighborhood may qualify for grant assistance. This was the case in the most recent installation along Salem Road.

The regional Sewer Treatment Plant, which operates at 55% of capacity, can clearly accommodate additional customers. Penn Township is one of four municipalities which became a part of the regional authority when it was established in 1994. The other participants are: Hummels Wharf, Shamokin Dam, and Selinsgrove.

Each municipal authority has two representatives on the Eastern Snyder County Regional Authority (ESCRA) as the treatment operating entity is called. The plant was constructed in 1980 by the Selinsgrove Municipal Authority which had sole responsibility for operating the plant until 1994 when the regional authority was established.

Penn Township constructed its first sewer line in 1982. The Township system is connected at various points to the Selinsgrove system and is metered at each of these points before proceeding to the wastewater treatment plant. Selinsgrove Center has a dedicated line that is metered

separately from other lines in the Township.

With the exception of the Breezewood development, sewer lines tend to be direct extensions of Borough lines which serve residential clusters that are adjacent to existing developments, either within the Borough or the Township. In the case of Breezewood, the original developer paid for a long gravity line that is tied into the ESCRA system at the Selinsgrove Industrial Park.

Two pump stations are situated within the municipal authority sewer system, one serving Salem-Glen and the other serving 12 homes along Salem Road and paid for through Community Development Block Grant Funds.

Water System

By contrast, water service was first introduced in the Township in 1995 to help a local industry, Universal Suppliers, address a water problem. With the assistance of a State grant, a deep well and water line were installed to serve Universal and other light industrial properties along Route 522, west of Clifford Road.

Water is obtained from a deep well located in the western part of the Township and pumped to a 500,000-gallon standpipe located near the Selinsgrove Center. The gravity system now serves 122 customers located in Salem along Clifford and Salem roads, parts of the older Belmar and Burgess developments, Harris Estates, and the Breezewood subdivision.

Expansion of the water system is predicated on achieving a critical mass of

customers in areas adjacent, or close to, existing lines.

The residential component of the water system was initiated by the need of the Harris Development for water service in the mid 90's. At the same time, the Municipal Authority agreed to take over a small system serving the Breezewood development. New lines were installed to connect Route 522 to these developments. Proceeding practically, the Authority decided to run these lines along roadways where existing residential development had already occurred. The expectation was that they would attract customers to help defray the cost of laying these new lines; however, only 15 new customers signed up.

Regional Alternatives

Selinsgrove Center is a major water user, consuming over 200,000 gallons per day as compared to approximately 20,000 gallons per day for the Township. From an initial seven wells, the Center is now down to three deep wells, two of which failed to meet recent DEP (SWIP) test. The Center has applied for funding to install a filtration system at a cost of approximately \$3 million, but would prefer to buy bulk water from a local authority.

Water rates in the Township are comparatively high at the present time, \$6.60/thousand gallons as opposed to between \$4 and \$5 per thousand gallons for adjoining Monroe Township.

Due to the limited number of water customers, approximately 120, the Authority is considering a number of options intended to create a larger and more efficient system.

The Municipal Authority's engineer Gannett/Fleming will look at the possibility of creating a new regional authority that would provide service to the municipalities of Selinsgrove and Penn Township and establish some type of bulk permit rate for the Selinsgrove Center. Since the Borough of Selinsgrove has essentially reached its maximum build out rate, future growth would be almost entirely located in the Township. At the same time, however, the Borough has excess water capacity to sell and can benefit from an expanded system.

One factor complicating the issue of water supply and demand is the significant number of small residential wells in the Township and their potential to draw down the water table. A study of the local aquifers and their potential capacity would be warranted.

There should be mandatory hookups for all new developments located within a reasonable distance of existing water lines. A key component of the Township's housing policy is to encourage "build out" of existing developments and/or to encourage growth in a contiguous or incremental manner.

Over the long term, the Township should seek to develop its water infrastructure in a way that targets large wells and/or aquifers with demonstrated capacity as opposed to small individual wells sited randomly throughout developed areas of the Township.

Planning for a Reliable Supply of Water

Penn Township has been fortunate to

date in having adequate water supplies. In fact, the municipal water system has excess capacity and would welcome additional users.

Geology is a primary determinant of groundwater quality and quantity. It can be critical, particularly where limestone formations underlay the land. Portions of Snyder County are underlain by limestone-based geology. Limestone is highly soluble and susceptible to the formation of caverns, sinkholes, and sinking streams. It is important to consider land use in areas underlain with limestone.

In Penn Township, the Elliber-Kreamer-Evandale soil association is found and is formed from cherty limestone. This limestone area is highlighted on the Snyder County General Soil Map and is located north of Route 522. This area is proximitous to Penn Township's municipal well.

Although no sinkholes have been recorded in Penn Township, the opportunity exists for karstic (limestone geology susceptible to sinkholes) activity, according to the Soil Survey.

The Municipalities Planning Code requires that the municipal Comprehensive Plan include a plan for future water supply. With this requirement is recognition that:

- Mineral extraction impacts water resources and is governed by regulatory statutes specifying replacement and restoration of the affected water supplies.
- Commercial agriculture production impacts water supply sources.

Concentrated animal operations have the potential to pollute local water resources and are generally regulated by State and Federal agencies. However, where local soils are underlain by limestone, the Township should exercise diligence in protecting its water supply.

The Township should require a hydrogeologic study for any proposed land

development or concentrated animal operation located in the Elliber-Kreamer-Evandale soil association.

Such a hydrogeologic study is required in the draft of the Township's Stormwater Management Ordinance (yet to be adopted) in selected cases. Groundwater recharge requirements are specifically listed in Section 305 of the Ordinance.

Sewer and Water Recommendations

- Continue investigation of regional water authorities to operate and manage larger systems in order to achieve more economy of scale.
- Require all new developments within an appropriate distance of existing water lines to hook into the system.
- Concentrate housing development in areas that are presently served by sewer and water or in areas that are proximites to sewer and/or water lines.
- Identify neighborhoods where residents qualify as low and moderate income so Federal and State funds can be used to expand and/or improve the sewer and water system.
- Establish a close working relationship between the Municipal Authority and Township Planning Commission in order to address anticipated residential and commercial development, levels of housing density and other planning related issues in which the two groups have a mutual interest.
- Encourage the County to conduct a hydrologic study of all aquifers in built up areas of the County to 1) determine the capacity and recharge capacity of these aquifers and their ability to support future residential and commercial development, 2) consider the effect of concentrated on-site wells on the water supply, and 3) identify the most productive aquifers for deep wells to sustain the municipal water system.
- Require hydrogeologic studies for land development including concentrated animal operations that are proposed in areas underlain by limestone.
- Investigate potential for a second source of water within the Township.