

Connoquenessing Township's Supervisors public meeting to discuss the Act 537 Plan update was called to order by Chairman, Terry Steinheiser at 5:30 p.m. on March 6, 2017 at the PA National Guard Armory, located at 250 Kriess Road, Butler, PA 16001. Steinheiser introduced the board and speakers which included Supervisor Terry Steinheiser, Chairman; Edward Rupert, Vice-Chairman; Ray Kroll, Supervisor/Roadmaster; Solicitor Andrew Menchyk, Jr.; Secretary Brenda Davis; and three representatives from Senate Engineering - Rick Barnett, Bill Braun and Michael Elisco. Brenda Davis took the minutes. Lee Kradel, Treasurer, was in attendance to greet the 71 people who signed in.

Rick Barnett from Senate Engineering presented a Power Point presentation on Connoquenessing Township 's Act 537 Sewage Facilities Plan Update. This presentation is included in the minutes.

Steinheiser called up 7 of the public who had signed up before the meeting to comment. Their names and one or more of their comments are below:

Ed Tanski, owner of Buttercup Campground, stated as a property owner in the Township he would like to see public sewage. However, Mr. Tanski stated he is also the President of the Board of the Evans City Sewer Authority and feels the cost estimates that have been supplied by Senate Engineering are out of the ballpark. Mr. Tanski stated Evans City has asked the Township to regionalize with Evans City but to no avail. Mr. Tanski stated the Township needs to form a Sewage Authority first and he is willing to help the Township.

Roy Gilliland of 129 Gilliland Ln. stated he would like to see more figures and asked the Township to look more into going to Evans City. Mr. Gilliland also stated he still has a trust issue with the Township because he feels this whole sewage issue has been secretive and the community has been thrown under the bus.

Estle Harp, 640 Evans City Rd., asked when public sewage does come in, will the lot size of 1 acre that is required now for a house be reduced? In addition, Mr. Harp feels the Township should go with the sewage package with the lowest monthly cost.

John Stokes, 1034 Springfield Ct., is concerned for the residents of Brandywine that pay water/sewage package plans now and wondered if they will still be responsible for these in addition to the new ones from the Township?

Charlotte Grimme of 734 Dick Rd., where the sewage plant is intended to be placed, voiced her opposition to the plant being on her property. Mrs. Grimme suggests sending to BASA or Evans City or use Township Property for the Plant. Mrs. Grimme stated her and her husband will fight to the end and urged the Township to go back to the drawing board.

Jon Grimme - signed in but did not comment when called on.

Bob Cichra of 141 Boy Scout Rd. feels everyone needs to work together. Mr. Cichra feels the location selected at Boy Scout/Dick Rd. is a BDA area and should be protected. Mr. Cichra strongly agrees with regionalization and said only the Rt. 68 corridor should be addressed now by going to BASA. In closing, Mr. Cichra stated reasons he doesn't have much faith in Senate Engineering or the Supervisors.

Steinheiser closed the meeting by thanking all for attending and sharing their comments and stated the board will consider all their comments. The meeting was adjourned at 6:45 p.m.

# CONNOQUENESSING TOWNSHIP

## ACT 537 SEWAGE FACILITIES PLAN UPDATE

### PRESENTATION OVERVIEW

- ▶ What is an Act 537 Sewage Facilities Plan?
- ▶ Doesn't the Township already have one?
- ▶ What does the Plan Update address?
- ▶ How was the Plan Update developed?
- ▶ What does the Plan Update recommend?

## ACT 537 PLAN BACKGROUND

- ▶ The PA Sewage Facilities Act 537, enacted in 1966 requires every municipality to develop and maintain an up-to-date Sewage Facilities Plan
- ▶ The purpose of the Sewage Facilities Plan is to:
  - ▶ Protect the health, safety, and welfare of residents
  - ▶ Provide protection of waters of the Commonwealth
  - ▶ Correct the existence of untreated or improperly treated sewage
  - ▶ Prevent future sewage disposal problems from occurring considering area growth and development

## ACT 537 PLAN BACKGROUND

- ▶ The PA Department of Environmental Protection (DEP) can require municipalities to update their Sewage Facilities Plan when the existing plan does not adequately meet sewage disposal needs.

## PREVIOUS ACT 537 PLANS FOR CONNOQUENESSING TOWNSHIP

- ▶ Butler County Sewage and Water Supply Plan, dated December 1970 identified Connoquenessing Township as being served by private onlot systems through 1978
- ▶ Since that time updates to the Plan have been made using DEP planning modules
  - ▶ Components 1 and 2 for onlot systems
  - ▶ Components 3, 3m and 3s for community and small flow systems

## PREVIOUS ACT 537 PLAN UPDATES FOR CONNOQUENESSING TOWNSHIP

- ▶ In 2006 Connoquenessing completed a Act 537 Update Special Study in accordance with a Consent Order and Agreement between the Butler Area Sanitary Authority (BASA) and DEP.
  - ▶ The plan identified two areas in the Township that were already connected to the BASA system.
  - ▶ The Plan stated that the Winterwood Drive Area, Golden L Trailer Park, and portions of the Route 68 corridor could be tied into the BASA system.

## WHY DOES THE TOWNSHIP NEED ANOTHER ACT 537 UPDATE?

- ▶ DEP has required the Township to update their Act 537 plan for several reasons:
  - ▶ The Route 68 corridor remains unsewered
  - ▶ The Winterwood area has failed onlot systems that have not been addressed
  - ▶ Other areas have been identified with malfunctioning onlot disposal system (OLDS)
- ▶ *The Township is being proactive by taking a long-term planning approach to include other areas of known sewage problems and areas likely to receive development.*

## WHAT HAPPENS IF THE TOWNSHIP DOES NOT DEVELOP ITS OWN ACT 537 UPDATE?

- ▶ DEP could place the Township under a Corrective Action Plan
- ▶ If an approved Corrective Action Plan is not developed, implemented and completed, a Consent Order could be placed on the Township, requiring certain sewage improvements to be implemented within a given timeframe.
- ▶ *The Township, by being proactive, can now develop and implement the Act 537 Plan Update on its own terms and schedule*

## CONTENTS OF AN ACT 537 PLAN UPDATE

► DEP requires the following to be considered in an Act 537 plan update:

- ▼ Previous planning
- ▼ Area streams, lakes, etc
- ▼ Soils
- ▼ Geology
- ▼ Wetlands
- ▼ Topography
- ▼ Existing treatment facilities
- ▼ Existing septage and sludge
- ▼ Land use
- ▼ Future growth
- ▼ Institutional issues
- ▼ Potable water supplies
- ▼ Zoning and subdivisions
- ▼ Floodplains
- ▼ Stormwater management
- ▼ Endangered/rare species
- ▼ Historic/archaeologic concerns
- ▼ Agricultural lands
- ▼ Alternatives
- ▼ Capital costs
- ▼ O & M costs
- ▼ Lifecycle costs

## GENERAL STEPS IN DEVELOPING AN ACT 537 PLAN UPDATE

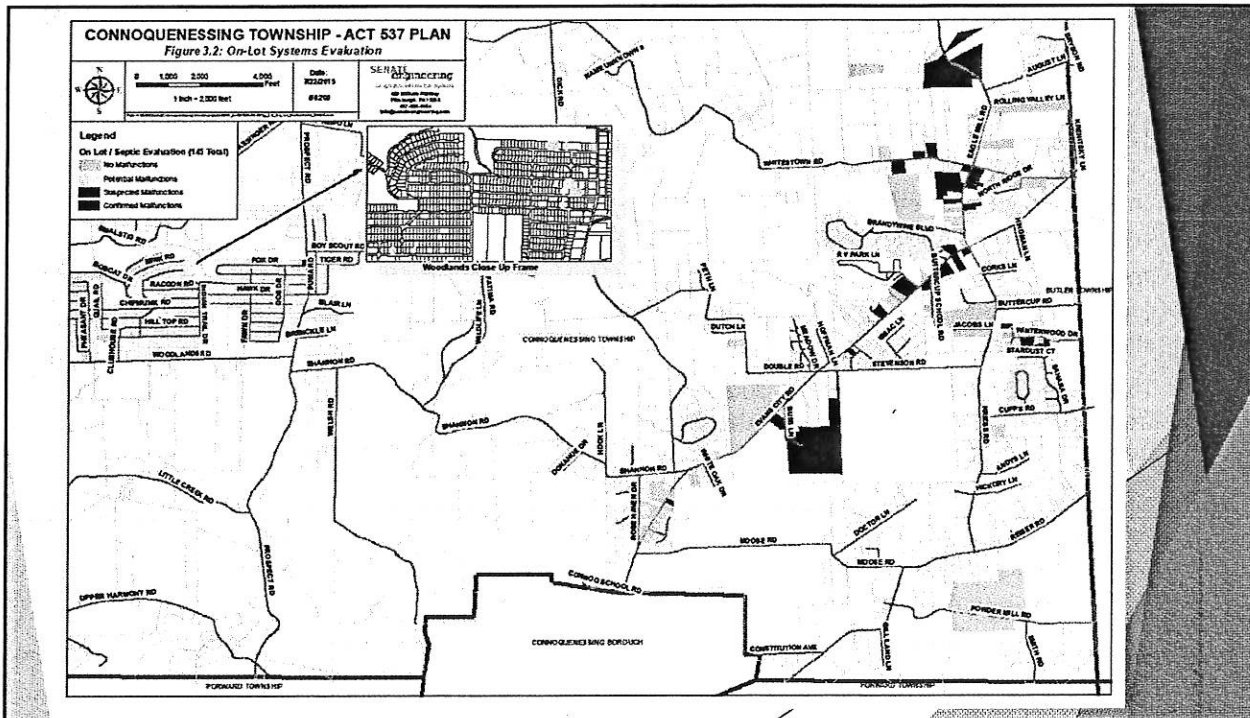
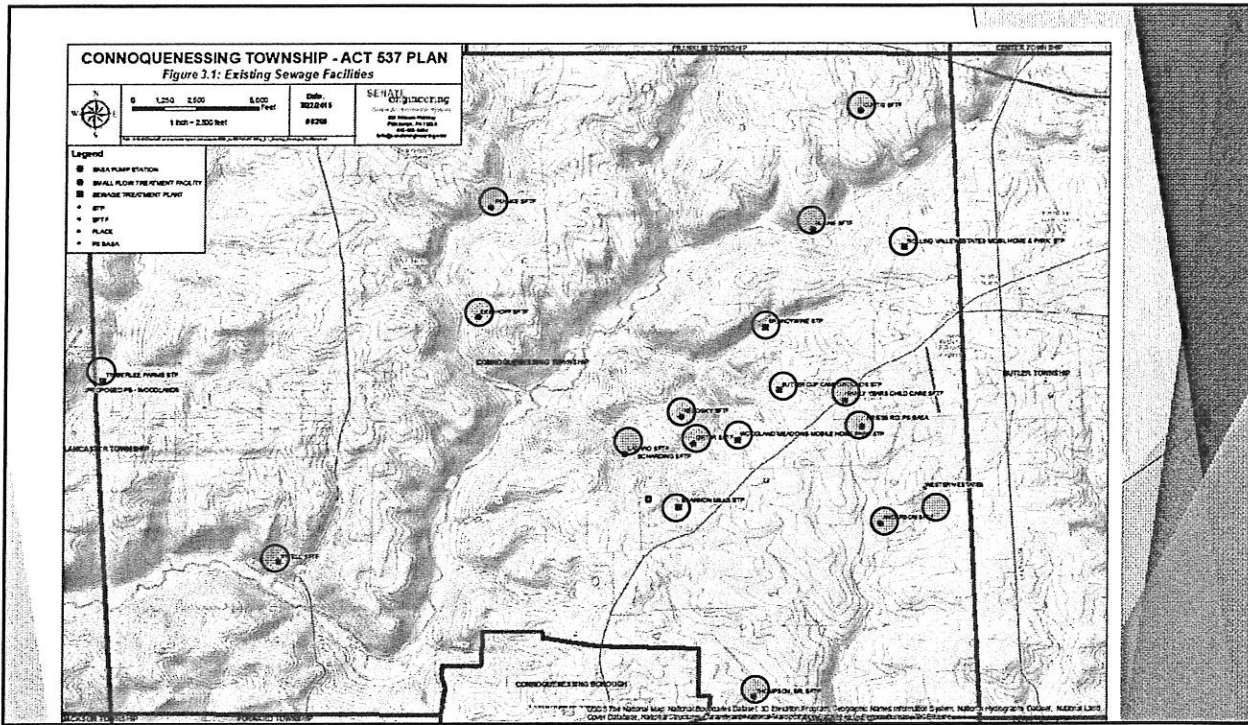
1. Determine service areas based on sanitary surveys, projected growth and development, and economics
2. Develop preliminary alternatives to provide service to those areas
3. Develop construction, project, operation and maintenance and debt service cost estimates
4. Conduct environmental and other clearances for the proposed sites
5. Identify a preferred alternative

## GENERAL STEPS IN DEVELOPING AN ACT 537 PLAN UPDATE

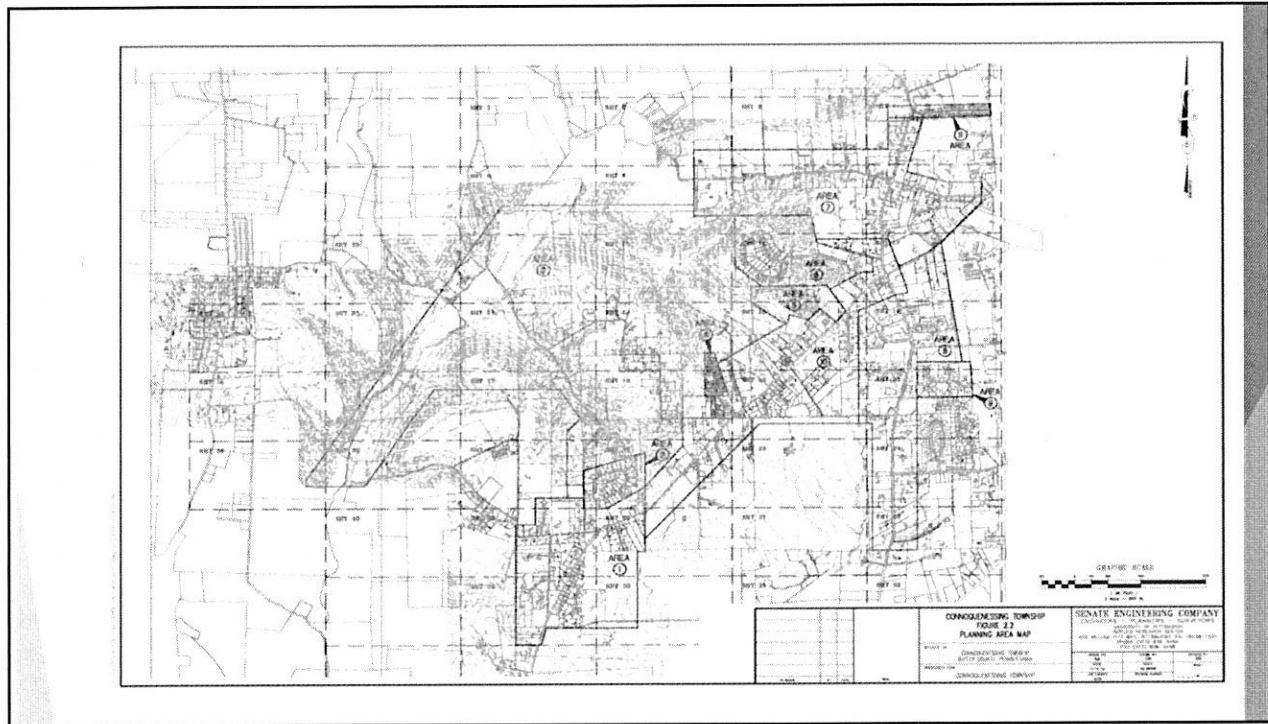
6. Develop a draft Plan
7. Conduct public comment period
8. Address comments
9. Submit Plan to DEP for review and approval
10. Implement Plan through design, permitting and construction processes

## EXISTING SEWAGE FACILITIES SUMMARY

- ▶ Certain areas of the Township are currently served by:
  - ▶ Privately owned sewage treatment plants
  - ▶ Small Flow Treatment Facilities
  - ▶ Pump Stations that discharge to the BASA system
- ▶ The remainder of the Township utilizes individual onlot systems, the majority of which are a form of inground bed systems.
- ▶ Of the 226 onlot systems surveyed, 8% showed some type of malfunction with 18 confirmed, 32 suspected, and 20 potentially failing







## PHYSICAL AND DEMOGRAPHIC ANALYSIS SUMMARY

- ▶ There two large watersheds of note in the Township, the Little Connoquenessing Creek and Connoquenessing Creek.
- ▶ Preliminary effluent limits from DEP indicated Little Connoquenessing Creek water quality can be maintained with biological treatment and disinfection facilities
- ▶ The Route 68 Corridor and other isolated areas receive public water from reservoirs. The remainder of the Township utilizes ground water from private wells.

## PHYSICAL AND DEMOGRAPHIC ANALYSIS SUMMARY

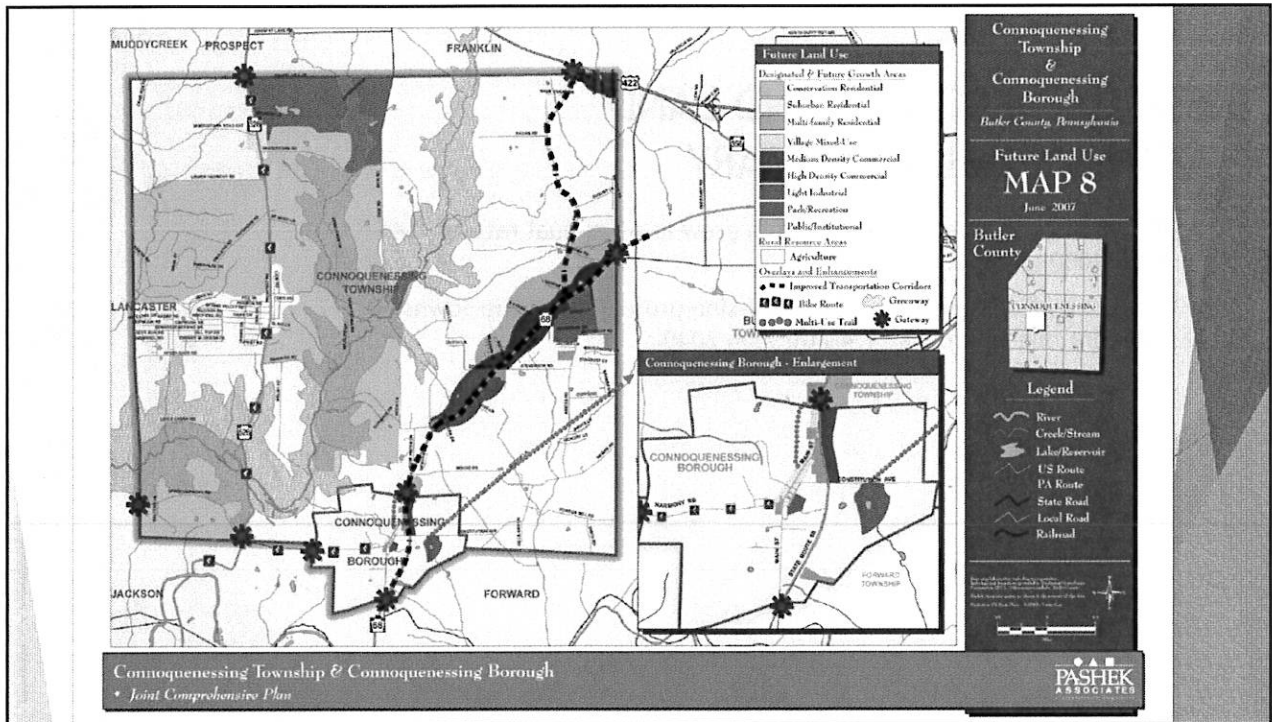
- ▶ Soils in the planning area generally not suitable for in-ground bed, sand mound, or spray irrigation septic systems
- ▶ Several of the soil types within the planning area are considered to be consistent with Prime Farmland or Farmland of Statewide importance
- ▶ The geology and geography of the planning area reduces the likelihood of nitrate contamination of ground water supply

## FUTURE GROWTH AND LAND DEVELOPMENT SUMMARY

- ▶ Based on census data, the Township grew at an annual rate of 1.4% from 2000 to 2010.
- ▶ The Southwest Pennsylvania Commission projects that the Township will continue to grow at 1.4% through 2040

# FUTURE GROWTH AND LAND DEVELOPMENT SUMMARY

- ▶ The Connoquenessing Borough and Connoquenessing Township Joint Comprehensive Plan broadly divides the Township into areas where growth should be promoted and areas where the rural character should be preserved.
- ▶ The Joint Comprehensive Plan specifically states that the lack of public sewers has discouraged certain business from locating along the Route 68 Corridor
- ▶ The Joint Comprehensive Plan also identifies the lack of public sewage in the Woodlands area as a significant problem.



## GENERAL ALTERNATIVES CONSIDERED

- ▶ Reliance on individual onlot disposal systems (sand mounds, leach fields, etc)
- ▶ Community or “cluster” onlot disposal systems
- ▶ Continued use of existing private or non-municipal sewage treatment plants (STPs)
- ▶ Expansion of private STPs
- ▶ Regionalization (BASA, Connoquenessing Borough, Forward Township, etc)
- ▶ Alternative collection systems (gravity sewers, low pressure sewers, vacuum sewers, etc)

## ARE ONLOT DISPOSAL SYSTEMS A VIABLE LONG-TERM ALTERNATIVE?

- ▶ Individual Systems
  - ▶ Individual systems including onlot septic systems and small flow treatment facilities are difficult for the Township or Commonwealth to regulate.
  - ▶ Lots must be adequately sized for operational and replacement systems
  - ▶ Regular maintenance is often neglected with repairs made only after a failure
  - ▶ Numerous untreated or under-treated sewage discharges in the Township can have a negative impact on both surface and groundwater quality
  - ▶ The continued reliance on individual systems in the planning area does not adequately meet either existing or future sewage needs in areas of the Township.

## CAN EXISTING SEWAGE TREATMENT PLANTS BE USED?

- ▶ While a majority of the existing privately owner WWTPs are in adequate working condition and generally meet existing needs, these facilities will not meet future needs.
- ▶ The existing facilities do not have capacity to accept additional flows without significant upgrades.
- ▶ Some of the existing facilities are reaching the end of their useful design life and will require significant and costly upgrades.
- ▶ It is anticipated that the existing facilities will require significant and costly modifications when future NPDES permit requirements include biological nutrient removal.
- ▶ The continued use of existing non-municipal facilities is not a viable option, with the potential exception of the Brandywine WWTP.

## 3 GENERAL ALTERNATIVES WERE CONSIDERED

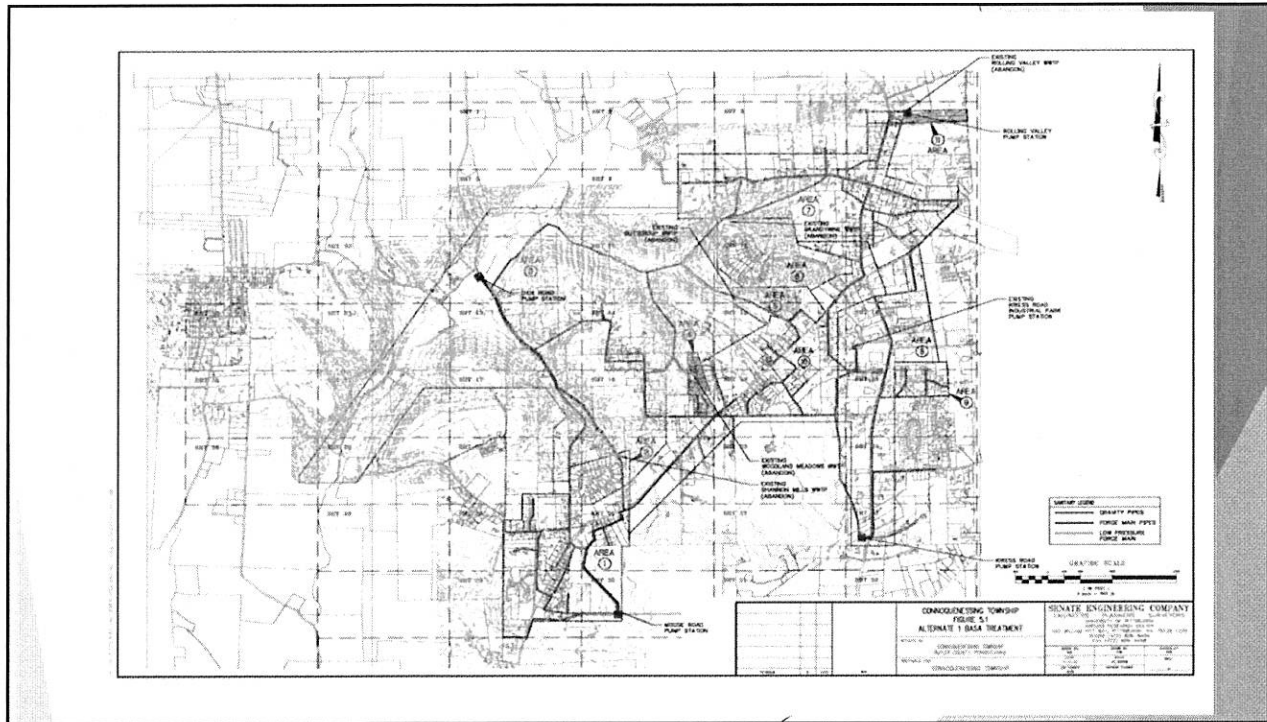
- ▶ Construct a collection system and send flows to BASA for treatment
- ▶ Construct a collection system and send flows to Evans City for treatment
- ▶ Construct a collection system and build a new WWTP in the Township located for future growth and development

## 4 ALTERNATIVES WERE DEVELOPED FOR ADDITIONAL EVALUATION

- ▶ Alternative 1 - Treatment at BASA WWTP
- ▶ Alternative 2 - Township WWTP at Brandywine
- ▶ Alternative 3 - Township WWTP at Dick Road/Boyscout Road
- ▶ Alternative 4 - Township WWTP at Shannon Road

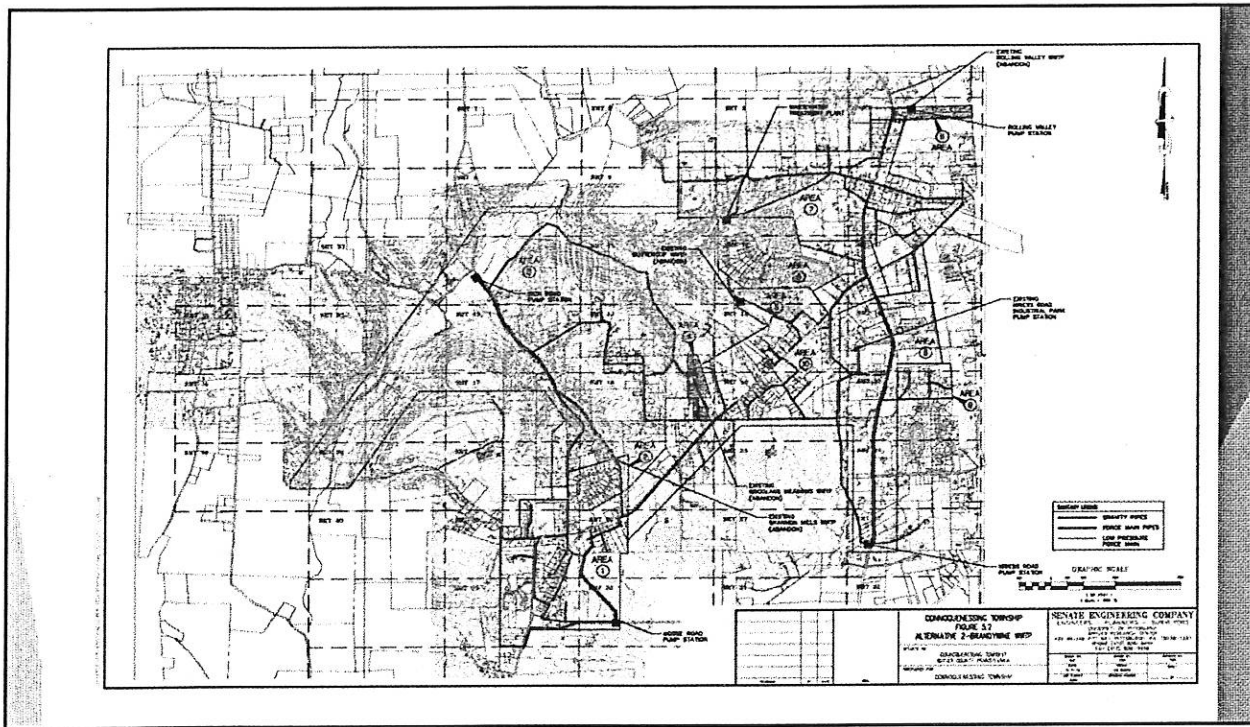
## ALTERNATIVE 1 - TREATMENT AT BASA WWTP

- ▶ The North Route 68 Corridor, including 4 existing privately owned WWTPs that would be abandoned, would gravity flow to a proposed Pump Station at the intersection of Dick Road and Boy Scout Road before being conveyed to BASA
- ▶ Woodlands Estates would flow to the Dick Road Pump Station.
- ▶ Flow in the South Route 68 Corridor would flow to 1 of 3 Pump Stations before being conveyed to BASA
- ▶ All flow would be conveyed through the BASA collection system for treatment at the BASA WWTP on Route 8 south.
- ▶ Customers would pay a new connection fee and monthly bills to BASA.



## ALTERNATIVE 2 - TREATMENT AT TOWNSHIP WWTP UPGRADED BRANDYWINE WWTP LOCATION

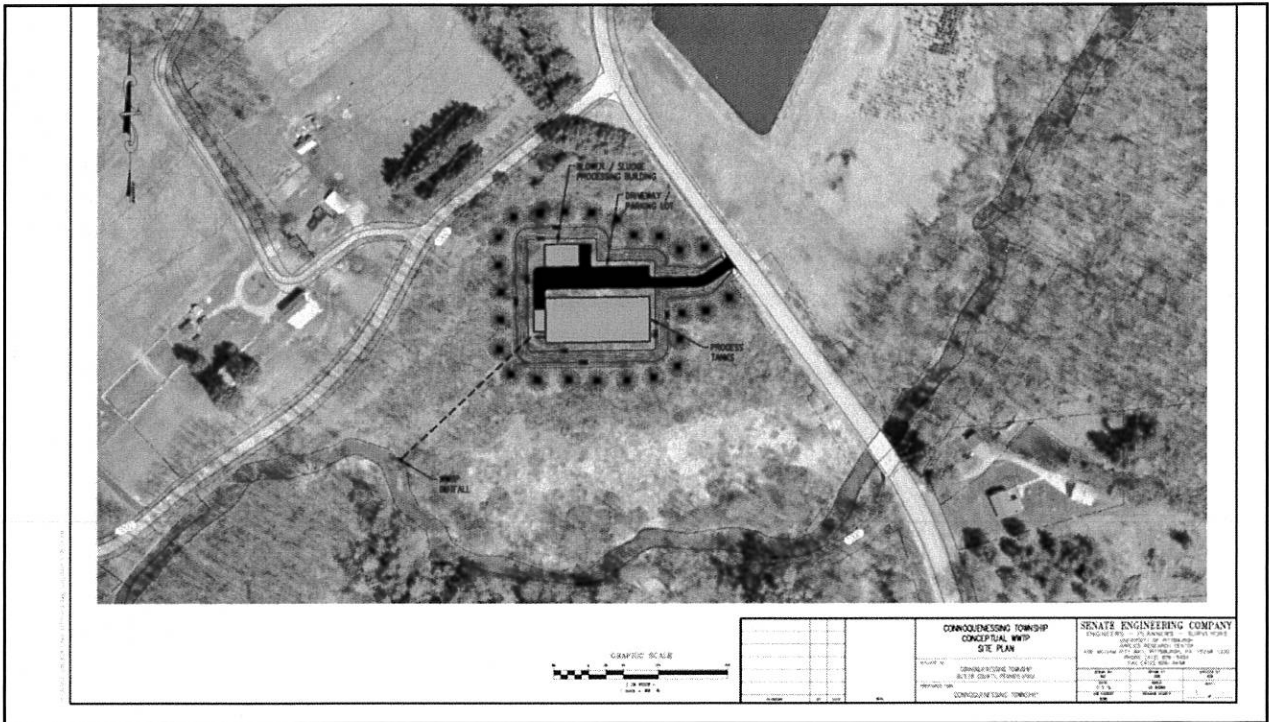
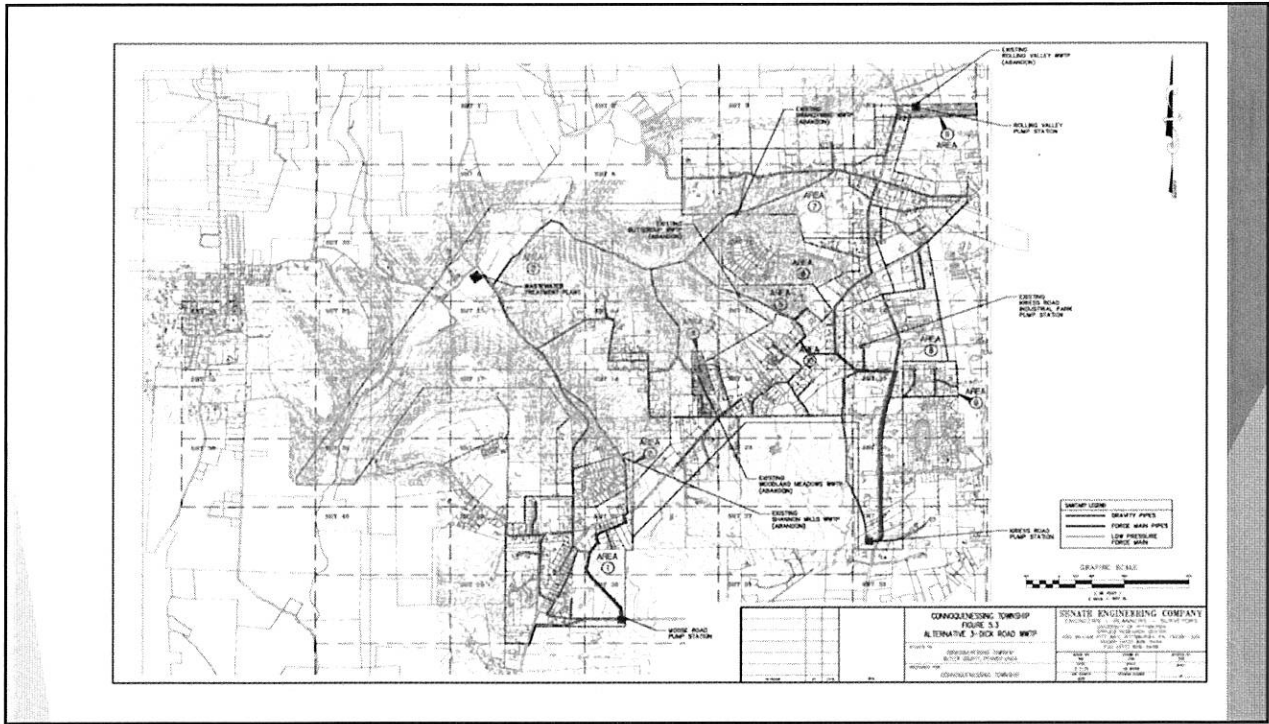
- ▶ The collection and conveyance system is similar to Alternative 1
- ▶ The existing Brandywine WWTP would be expanded and upgraded.
- ▶ The Kreiss Road and Moose Road Pump Station would discharge to the upgraded Brandywine WWTP instead of the Cupps Road Pump Station.
- ▶ The new WWTP would employ an activated sludge process with disinfection.
- ▶ Treated effluent would be discharged to an unnamed tributary to the Little Connoquenessing Creek.



## ALTERNATIVE 3 - TREATMENT AT TOWNSHIP WWTP AT THE DICK ROAD/BOYSCOUT ROAD LOCATION

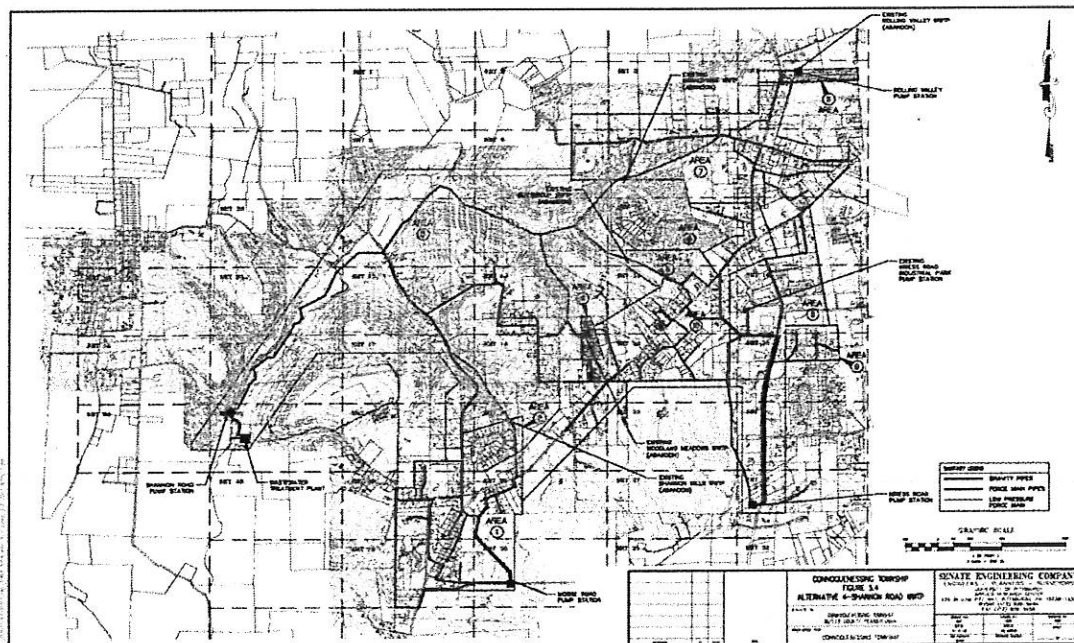
- ▶ The collection and conveyance system is similar to Alternative 1
- ▶ The Dick Road Pump Station would become a wastewater treatment plant (WWTP).
- ▶ The Kreiss Road and Moose Road Pump Station would discharge to the Dick Road WWTP instead of the Cupps Road Pump Station.
- ▶ The new WWTP would use an activated sludge process with disinfection.
- ▶ Treated effluent would be discharged directly to the Little Connoquenessing Creek.





## ALTERNATIVE 4 - TREATMENT AT TOWNSHIP WWTP AT THE SHANNON ROAD LOCATION

- ▶ The collection and conveyance system is similar to Alternative 1
- ▶ A new WWTP would be constructed near the Shannon Road Bridge
- ▶ The Kreiss Road and Moose Road Pump Station would discharge to the Shannon Road WWTP instead of the Cupps Road Pump Station.
- ▶ The new WWTP would employ an activated sludge process with disinfection.
- ▶ Treated effluent would be discharged directly to the Little Connoquenessing Creek.



## COST ESTIMATES

- ▶ The anticipated construction, operation, and debt service cost for each alternative are as follows:

	Alternative 1 BASA Treatment	Alternative 2 Brandywine WWTP	Alternative 3 Dick Road WWTP	Alternative 4 Shannon Road WWTP
Estimated Project Cost	\$13,300,000	\$16,000,000	\$14,900,000	\$16,240,000
Estimated Annual O&M Cost	\$ 585,800	\$ 355,800	\$327,600	\$326,800
Yearly Debt Service	\$ 554,000	\$ 536,000	\$490,000	\$546,000
Uniform Annual Cost	\$1,520,000	\$ 1,480,000	\$1,380,000	\$1,470,000

## USER FEES

- ▶ Only customers connected to the new sewer system will be charged a user fee
- ▶ Township taxes will not be used to pay for the sewer system
- ▶ User fees are estimated by dividing the total annual cost of the system by the number of Equivalent Dwelling Units (EDUs)
- ▶ An EDU is equal to 240 gpd sewage flow per typical residential household

## USER FEES

- ▶ The estimated initial cost per typical residential household for each alternative is as follows:

	Alt 1	Alt 2	Alt 3	Alt 4
Estimated Annual User Fees	\$ 1,171	\$ 917	\$ 840	\$ 897
Estimated Monthly User Fees	\$ 98	\$ 76	\$ 70	\$ 75

## ESTIMATED TAP FEES

- ▶ Tap fees are a one-time cost to each customer prior to connection to the sewer system.
- ▶ The estimated tap fees for each alternative are \$3,190 to allow for an “apples - apples” comparison of the alternatives.
- ▶ The final tap fees will be determined based on final project costs.

## SELECTED ALTERNATIVE

- ▶ Environmental Concerns:
  - ▶ The Pennsylvania Fish and Boat Commission, Pennsylvania Game Commission, and Pennsylvania Department of Conservation and Natural Resources do not anticipate a significant impact as a result of the project.
  - ▶ The U.S. Fish and Wildlife request that the project is completed in a manner to mitigate the impact to the Indiana Bat
  - ▶ The project will require the disturbance of wetlands. The Township will work closely with the DEP and Butler County Conservation District during the design process to mitigate the impact on the wetlands.
  - ▶ Any impacts to the floodway of the Little Connoquenessing Creek from construction of the WWTP will be addressed during the design and permitting process. The WWTP will be elevated to ensure no flooding occurs during the 100 year flood event.

## SELECTED ALTERNATIVE

- ▶ Alternative 3, Township Treatment at the Dick Road/Boyscout Road location is the most cost effective alternative that meets the existing and future needs of the Township.

## POTENTIAL FUNDING SOURCES

- ▶ Potential funding sources that will be considered and investigated include the following:
  - ▶ Government Grants
  - ▶ Government Loan Programs (Pennvest, RUS, etc.)
  - ▶ Bonds
  - ▶ Private Banks

## WHAT ARE THE NEXT STEPS?

- ▶ Public comments are received and addressed. – 1 month
- ▶ The Plan is adopted by the Township and sent to DEP for review and approval – 1 month
- ▶ The design and permitting phases are completed – 24 months

## WHAT ARE THE NEXT STEPS? (con't)

- ▶ Funding is secured – 6 to 9 months
- ▶ Bids are received and the facilities are constructed – 24 months
- ▶ Construction is complete and ready for connection – 1 month
- ▶ The total process could take up to 5 years or more

***THANK YOU YOUR INTEREST AND  
PARTICIPATION.***

***QUESTIONS?***