Raintree Road Sanitary Sewer Extension

Second Public Meeting
Thursday August 25, 2016

Lancaster Area Sewer Authority
West Hempfield Township

Purpose of Tonight's Meeting

1. Overview of the Project
2. Review of First Meeting July 13, 2016
3. Need for the Project
   - Explain Act 537 Plan "Needs Area"
4. Costs of the Project
5. Responsibilities
6. Next steps
7. Questions/Answers

Protocol for Tonight's Meeting

- Please hold questions until the end of the meeting
  - One question or comment at a time
  - During first round of questions hold each question or comment to 3 minutes each
  - Do not repeat questions or comments
  - After everyone has a chance for one question or comment, a second round of follow up or continuation of questions or comments permitted
- Unruly behavior or obscenities will not be tolerated

Overview of the Project

- Installation of low pressure sanitary sewer system to serve 39 homes in Raintree Road area
- Each property will be supplied with a grinder pump

Project Area

Overview of the Project

- The system will be financed by LASA
- The system will be funded (paid for) by LASA and the Township
- Has been in planning for 10 years
- Is now in design (Entech Engineering)

First Meeting July 13, 2015

- Silver Spring Fire Hall
- Township, LASA, and Grinder Pump representative
- Questions concerned about need for the project
  - Act 537 "Needs Area"
- Cost responsibilities

Act 537 (Sewage Facilities Plan)

- Required under State Law for the Township
- Includes provisions for:
  - Septic system maintenance
  - Overall evaluation of sewage facilities - On-lot and Public
    - Determination of sewage needs areas

Septic System Maintenance

- Requires periodic pump-outs and inspections
  - Can prolong the life of septic systems
  - Can help avoid or postpone costly public sewer construction
- Some problems can be corrected, but
- Some problems cannot be fixed
  - Then use "best technical guidance"

Septic System Maintenance

- *The inspection conducted when my septic system was pumped out show it passed. Why are you now saying I need to replace it?*
  - Inspection looks at baffles and tank structure and any evidence of drain field problems.
  - Systems can last indefinitely if:
    - Constructed properly
    - Located on proper soil
    - Maintained by pump outs

Septic System Maintenance

- Pump outs cannot fix:
  - Poor soils
  - Poorly or improperly designed or sized systems
    - Water contamination and surfacing

Need for the Project

- Act 537 Plan "Needs Areas"
  - Components of an approvable Act 537 Plan are laid out in the law (PA Act #537)
    - Identify "Needs Areas"
    - Identify options to eliminate Needs Areas
    - Evaluate the options
    - Select the most preferred option
    - Implement the option over the next 10 years

Criteria for Needs Areas

- Dictated in "Act 537 Sewage Disposal Needs Identification" document
- 20 Pages
- "Fundamental part of 537 is identification of Needs Areas"

Determining Needs Areas

- Data collection
- Assessment of other "factors"
  - Soils
  - Sewage malfunctions
  - Polluted wells
  - Zoning
  - Etc.

Determining Needs Areas

- Public Health Needs
  - Health Hazards and Water Pollution problems involving
    - Discharge of untreated or partially treated sewage to surface of the ground or to waterways (including groundwater)
    - "Most commonly" are due to individual malfunctioning on-lot disposal systems (OLDS) or community OLDS

Determining Needs Areas

- 4 categories of OLDS functionality
  - Properly Functioning
    1. "No Malfunction"
  - Malfunctions
    1. "Potential Malfunction"
    2. "Suspected Malfunction"
    3. "Confirmed Malfunction"

1. "Potential Malfunction"

- Appear to be operating satisfactorily, but:
  - Constructed before state permitting requirements (May 15, 1972)
  - Located in areas extremely unlikely to receive permitting by current state standards
  - Located in areas with soils mapped as "unsuitable or with severe limitations" for OLDS
  - Located on exceptionally steep slopes more than 25%
  - Repaired under permits that meet Chapter 73 standards

2. "Suspected Malfunction"

- Exhibit some malfunction characteristics
  - Abnormally green grass at absorption area
  - Piped discharges from one or more dwelling without direct evidence of the sewage
  - Absorption areas located in known unsuitable soils
  - Cesspools
  - Pit privies

3. “Confirmed Malfunctions”

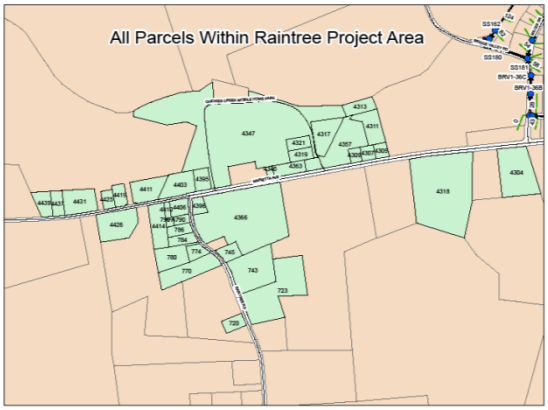
- Documented malfunctions through
  - Dye testing
  - Laboratory test results
  - Observation by Sewage Enforcement Officer (SEO) or other professional
- Permitted “Best Technical Guidance” repairs
- Seasonally wet absorption area
- Piped discharge from structure with evidence of sewage
- Reports of system backups
- Malfunctions with photographic documentation or other similar evidence

Next Steps

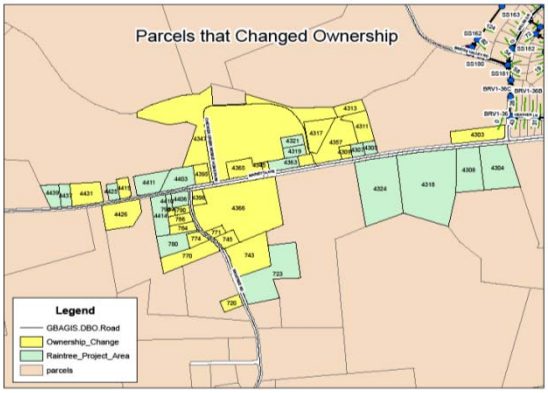
- Compile all the data into tables
- Narrative summary
- Group the data – no one prescribed formula
  - Number of properties
  - Number with known disposal problems (and number without problems)
  - What kinds of problems
- Map summary

How the Township Plan Was Conducted

- Phase 1
  - Identify needs
  - 18 data points within 39 properties
- Phase 2
  - Identify and select alternatives
- Phase 3
  - Public and agency reviews and comments



Why don't I remember when this was conducted?

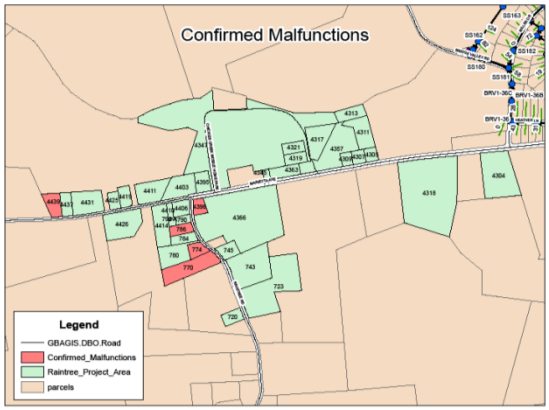


What was considered in WHT needs analysis

- Cluster of properties with
  - Confirmed malfunctions
  - Suspected malfunctions
  - Potential malfunctions
- Surveys
- Well water tests
- Geology
- Soil types
- Past documented malfunctions
- Permits for replacement septic systems
- All of this resulted in the Raintree Road area being identified as a sewage needs area.

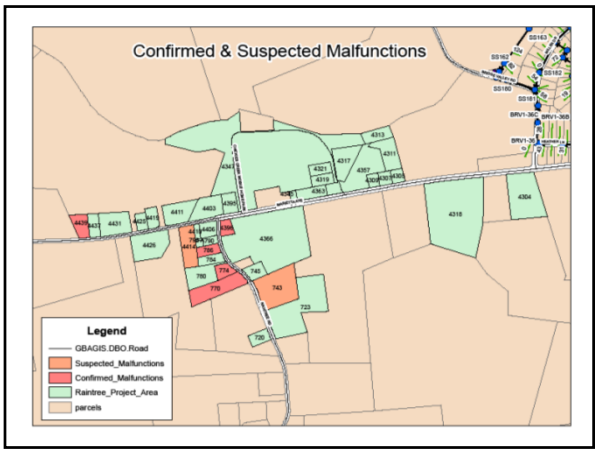
Confirmed Malfunctions

- Characterized by
  - Wetness or spongy areas
  - Documented past repairs
  - Water well isolation distance
  - Obvious problem with discharge
- Five (5) properties
  - 1 with wet or spongy area
  - 3 with well isolation distance
  - 1 with problem discharge



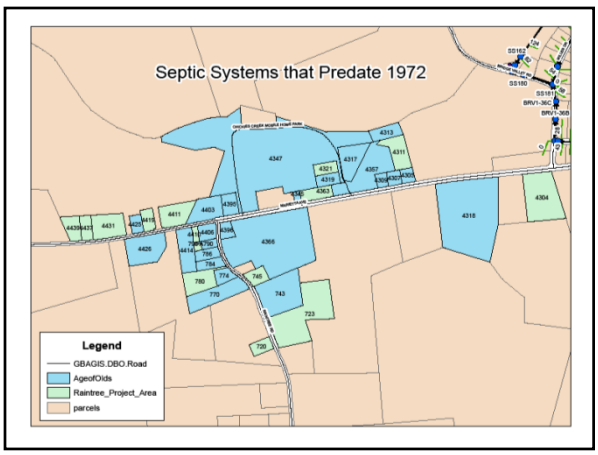
Suspected Malfunctions

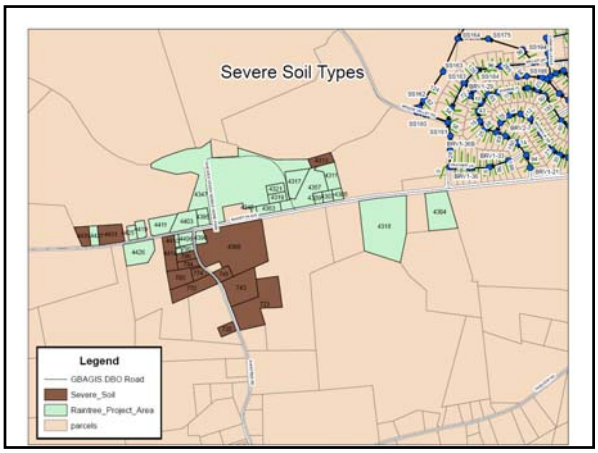
- Characterized by:
  - Old wells (influenced by surface water)
  - Privy or outhouse
  - Seepage pits
  - Green lush grass
- Three (3) properties
  - 1 with age or well
  - 1 with seepage pit and
  - 1 green lush grass

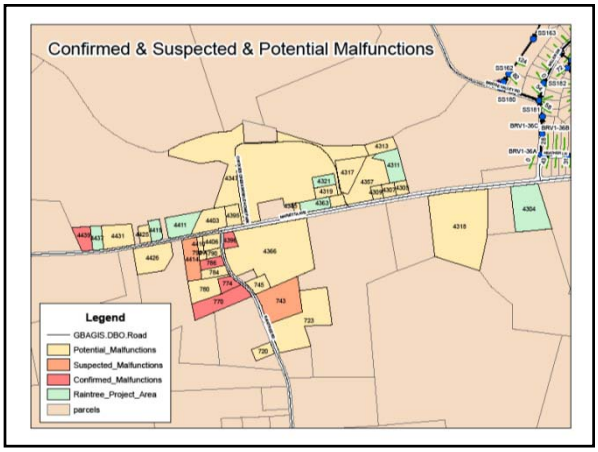


Potential Malfunctions

- Characterized by:
  - Age (Pre-date septic system permitting requirements in 1972)
  - Past repair of soil absorption area
  - Lot too small for replacement drain field
  - Holding tank
  - Soil type is too severe for system to work properly
  - Soil type
- Twenty four (24) properties currently







Other Factors

- Well water test shows nitrates, or total coliforms or fecal coliforms
- Township ordinance that requires dwellings within 150 feet of public sewer to connect

Public Sewer Option

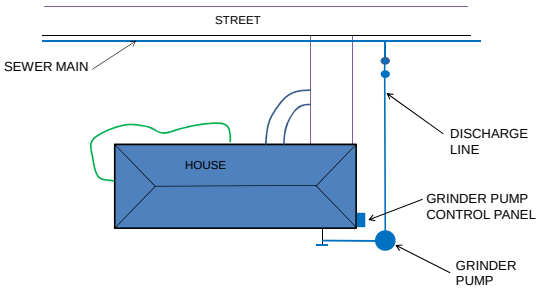
- Pros:
  - It's a forever solution
  - No risk of future major capital or repair costs
  - Better levels of treatment
- Cons:
  - Capital cost is high to extend public sewer
  - Operating cost can be higher
  - It can promote growth outside of designated growth areas

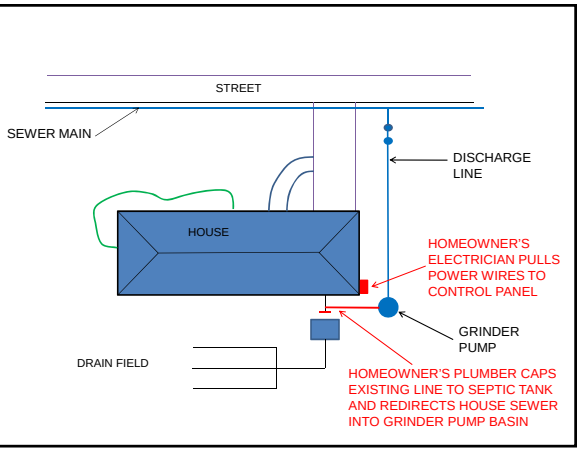
LASA will

- Finish design of system.
- Obtain permits and approvals.
- Execute Grinder Pump Easement & Maintenance Agreement with Homeowner.
- Hire contractor and oversee installation of:
  - Sewer Main.
  - Grinder Pump & Service Line (from curb to grinder pump).
  - Electrical Control Panel.
- Inspect Homeowner's sewer connection to grinder pump.
- Grinder pump system start-ups.
- Provide service and repairs to grinder pump unit.

Homeowner will

- Sign-off on easement.
- Apply for Connection Permit with LASA.
- Pay Required Fees.
- Hire electrician to provide power to electrical control panel.
- Hire plumber to redirect House Sewer to Grinder Pump basin.
- Have someone pump-out and decommission existing septic tank.
- Coordinate & ensure that all required inspections are completed:
  - House Sewer redirection to grinder pump basin (LASA).
  - Electrical power to control panel (Township Code Enforcement).
  - Septic Tank abandonment (Township SEO).
- Provide proper care of grinder pump.





Costs paid by LASA and Township

- LASA will provide up-front funding and manage the project
- LASA will contract for some of the work
- Township will provide its own workforce for some of the work and contract for other work
- Construction estimate is about $830,000
- About $21,300 per customer

Costs to Homeowner - Fees

- Tapping Fee.
- Connection Fee.
- Inspection Fee

Costs to Homeowner - Fees

Tapping Fee	$2,380
Connection Fee	$750
Inspection Fee*	$35
Total Owed To LASA	$3,165

*Inspection fee must be paid when Connection Permit is issued.
Connection Fee and Tapping Fee are eligible for payment plan.

Costs to Homeowner - Fees

	10-Years	15-Years
Tapping Fee	$2,380	$2,380
Connection Fee	$750	$750
Administration Fee*	$175	$175
Processing Fee*	$240	$360
Total	$3,545	$3,665
Monthly Payment	$29.54	$20.36

*Not Applicable with up front payment of fees.

Costs to Homeowner - Fees

Fees with Financing	$29.54/month
Sewer Service Charge* (effective 01/01/17)	$30.62/month
TOTAL MONTHLY (10 Years)	$60.16/month

Fees with Financing	$20.36/month
Sewer Service Charge* (effective 01/01/17)	$30.62/month
TOTAL MONTHLY (15 Years)	$50.98/month

*LASA bills sewer service quarterly and financing fees monthly.
Monthly fee total provided for budgeting purposes.

Costs to Homeowner - Fees

- If you select a financing option, a lien will be executed.
- Liens guarantee that outstanding balance will be paid to LASA if your property is sold or refinanced.

Costs to Homeowner - Costs

- Electrical service and inspection for grinder pump.
- Connection of existing house sewer line to new grinder pump unit (including associated restoration).
- Pump-out your septic tank
- Demolition of tank top and filling the septic tank with gravel/fill.

Costs to Homeowner - Costs

- Electrical Requirements: Cost Varies (*estimated at $800*)
  - Dedicated Breaker (30 amp for 120V or 20 amp for 240V Service)
  - Wiring & Conduit
- Reroute House Sewer: Cost Varies (*estimated at $1,600*)
  - Grinder Pump usually located 5-15 feet from House Sewer
- Decommissioning Septic: Cost Varies (*estimated at $600*)
  - Type, Location, and Size
  - Tank size - pump-out, hauling, disposal
  - Tank size - top cave-in/removal and fill with stone

Schedule

• Surveys	August through November 2016
• Complete design	April 2017
• Sign construction contracts	May 2017
• Construction starts	June 2017
• Construction complete	January 2018
• Connection notices	January 2018
• Connections	January through February 2018

Thank You. Questions?

- Name and address please
- Question or comment
  - One question or comment at a time
  - During first round of questions hold each question or comment to 3 minutes each
  - Do not repeat questions or comments
  - After everyone has a chance for one question or comment, a second round of follow up or continuation of questions or comments permitted

END