WHITEMARSH ISLAND
SEPTIC SURVEY MEETING

Chatham County Department of Engineering

CHATHAM COUNTY DEPARTMENT OF ENGINEERING

124 Bull Street, Room 430
P.O. Box 8161
Savannah, Georgia 31412-8161
FAX 912-652-7818
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Suzanne V. Cooler, P.E.
County Engineer

Nathaniel Panther, P.E.
Assistant County Engineer

Chatham County is considering a project to bring sanitary sewer service to your community.

If approved, the County would support the design and construction of a community sanitary sewer system and residents would have the option to connect or stay on septic. The residents would be responsible for paying expenses that include (but are not limited to) connection fees and any plumbing upgrades. Residents would also be responsible for monthly utility fees.

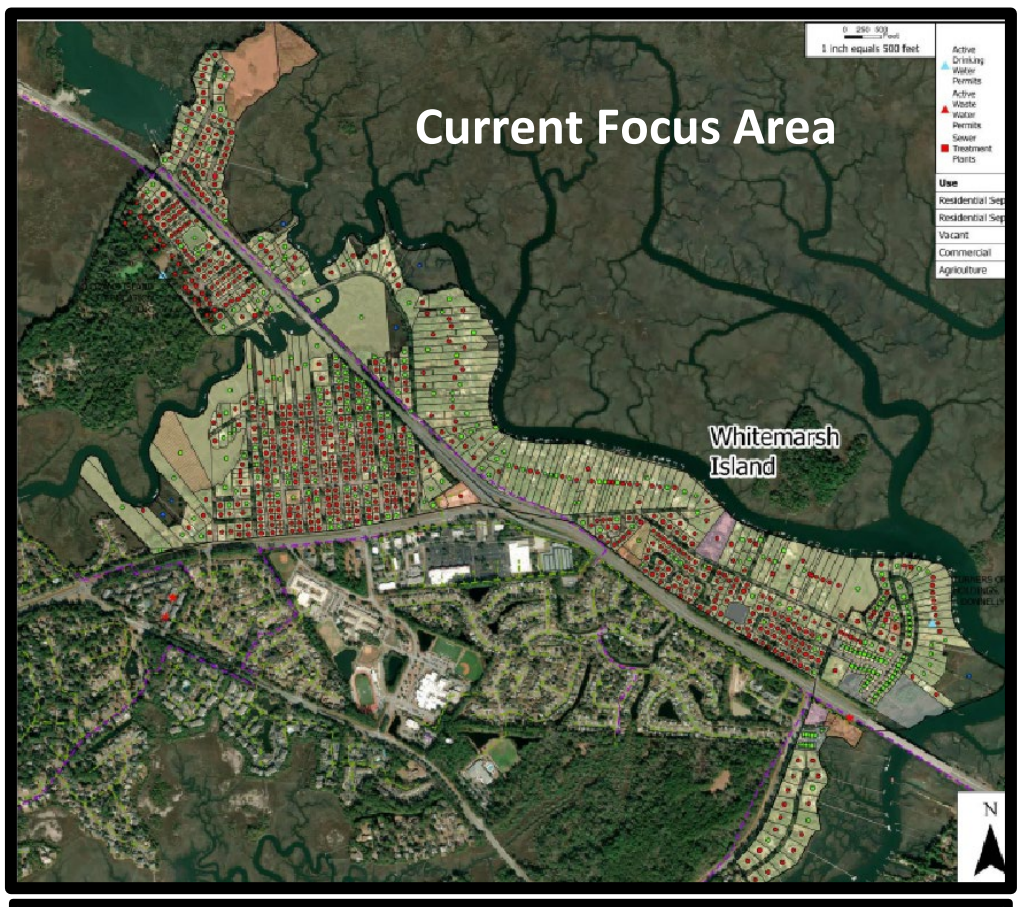
We recognize this is a significant investment for the County and the residents. We are exploring financial assistance options, flexible payment plans, and other ways to reduce costs to residents.

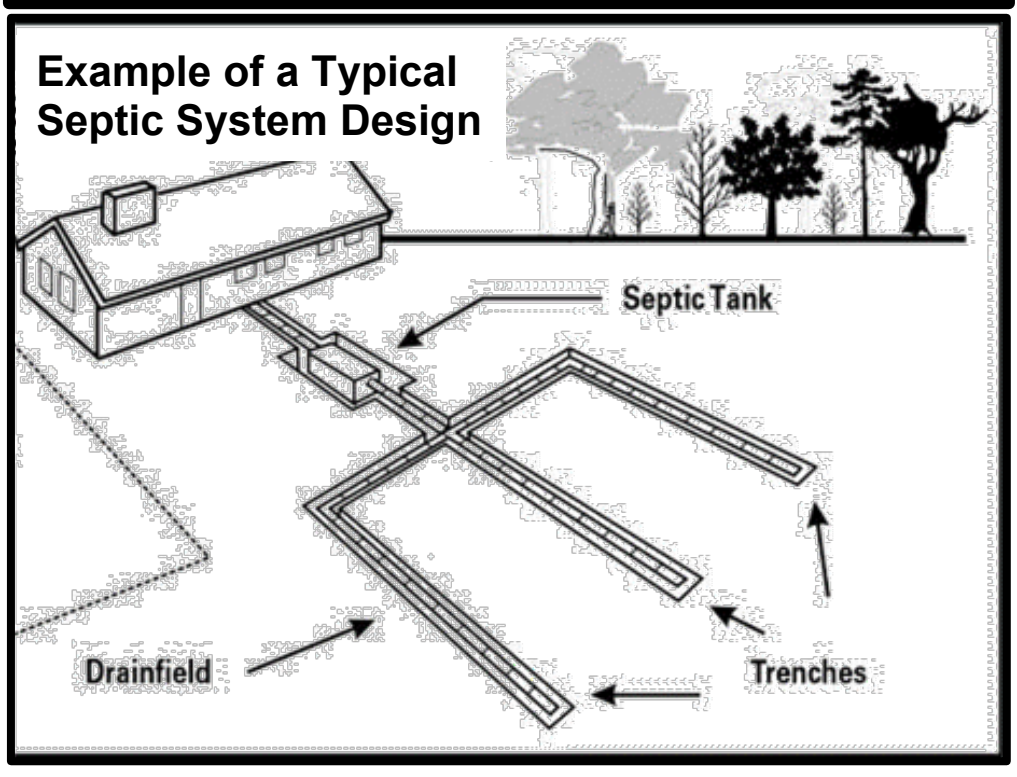
Completing this questionnaire does **not** obligate you in any way to participate in the project. Your feedback helps ensure the project reflects community needs.

The following public meetings are also being held to discuss the efforts being referenced. Please plan on attending as well as sharing the details with your community members.

- **Monday, March 2, 2026: 5:30-6:30 PM** at the Islands Library: 50 Johnny Mercer Blvd, Savannah, GA 31410 / 912-897-4061
- **Tuesday, March 24, 2026: 6:00-7:00 PM** at the Frank Murray Community Center: 125 Wilmington Island Rd, Savannah, GA 31410 / 912-898-3320

Feel free to reach out with any questions. Thank you—we look forward to hearing from you.





Below is the septic survey questionnaire that can be completed manually and returned by mail or the adjacent QR Code can be scanned to complete the survey online.

Existing Sanitary Sewer System:

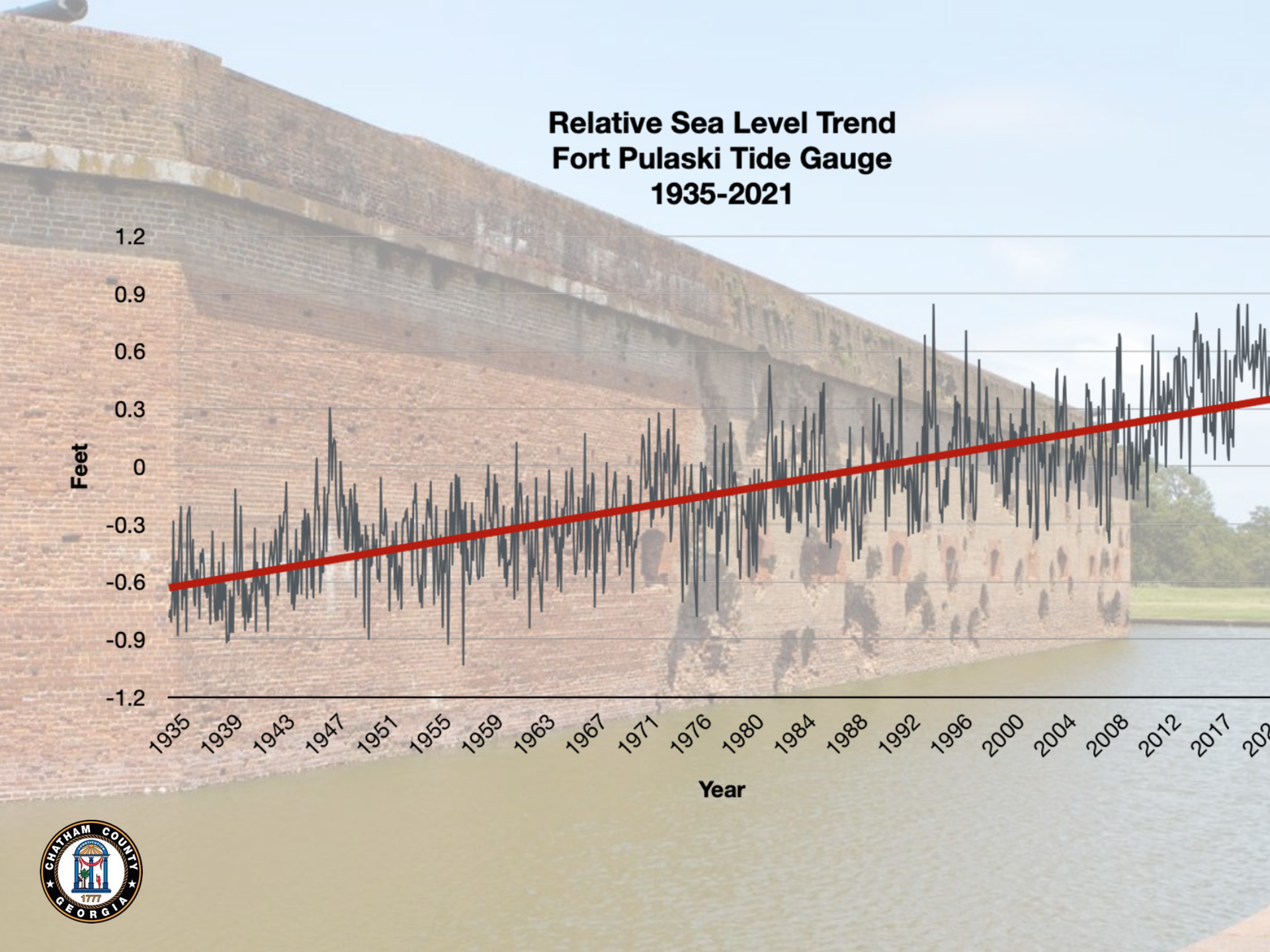
1. What type of wastewater system do you currently use?
    a. Septic tank and inground drain field
    b. Septic tank and above ground system (ex. Mound)
    c. Septic tank and Advanced Treatment Unit (ex. Eljen system)
    d. Other, please describe:
    _____
    e. Not sure
2. How satisfied are you with your home's current wastewater treatment system?
    a. Very satisfied
    b. Somewhat satisfied
    c. Neutral
    d. Somewhat dissatisfied
    e. Very dissatisfied
3. Have you experienced any of the following issues with your Chatham County home in the past 3 years? (Check all that apply)
    - Sewage backups inside the house
    - Standing water, soggy ground, or very green areas over the drain field
    - Strong sewage odors
    - Septic tank pumping more than once a year
    - No issues
    - Other (please describe):
    _____
4. Have flooding or rising groundwater levels affected your property's septic system?
    a. Yes, significantly (please describe)
    _____
    b. Yes, occasionally (please describe)
    _____
    c. No
    d. Not sure
5. Have you experienced any issues with your home's current system in the past 5 years (e.g., backups, repairs, needed inspections)?
    a. Yes, please describe briefly:
    _____
    b. No

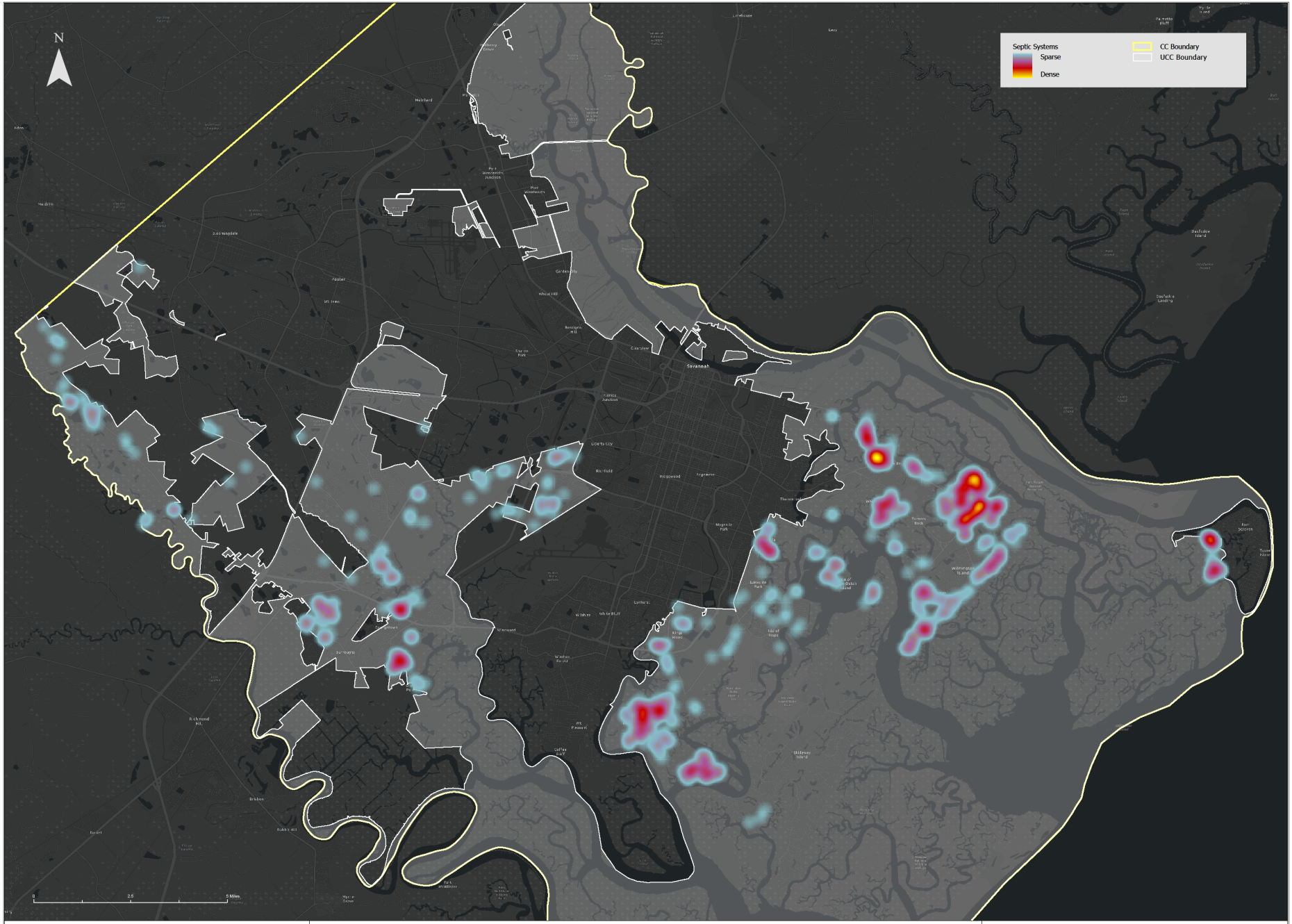
Proposed Sanitary Sewer System:

6. Do you support the construction of a new sanitary wastewater sewer system and treatment facility to replace the aging septic systems in your area?
    a. Strongly support
    b. Somewhat support
    c. Neutral/Undecided
    d. Somewhat oppose
    e. Strongly oppose
7. The estimated one-time cost to connect to the new sewer system—including the connection fee and necessary plumbing improvements—could range up to $15,000 per household. It is possible that this amount could be paid upfront or through a financing plan. Would you be willing and able to pay this amount (either upfront or through a financing plan)?
    a. Yes, I could pay the full amount upfront
    b. Yes, if a financing/payment plan is available
    c. No, the cost is too high for me
    d. Unsure / need more information
    e. Other, please describe
    _____
8. Please select the highest amount you believe you would be willing and able to contribute toward this project (either as a lump sum or in installments):
    a. $0-$1,000
    b. $1,001–$2,000
    c. $2,001–$5,000
    d. $5,001–$10,000
    e. $10,001–$15,000
9. A monthly sewer bill (in addition to a one-time connection fee) will be required to fund the ongoing operation and maintenance cost of any new sewer systems. Are you willing to pay a monthly sewer bill to improve wastewater treatment and management as well as improve environmental protection?
    a. Yes
    b. No

Environmental and Community Impact; Final Thoughts:

10. The water quality of our receiving streams, wetlands, marshes, and waterways is protected by the appropriate treatment of wastewater in our communities. How important is it to you to protect the water quality and the environment adjacent to your neighborhood from failing septic systems?
    a. Very important
    b. Somewhat important
    c. Neutral
    d. Not very important
    e. Not important at all
11. What are your primary concerns or questions about this proposed sanitary sewer project for your community? (Select all that apply)
    - Cost of connection
    - Ongoing affordability to residents
    - Environmental impacts in and near your community
    - Construction disruption
    - Access to your property
    - Plumbing changes inside your home
    - Loss of property features (trees, landscaping, etc.)
    - Lack of information
    - Other, please describe:
    _____


Relative Sea Level Trend
Fort Pulaski Tide Gauge
1935-2021
1.2
0.9
0.6
0.3
0
-0.3
-0.6
-0.9
-1.2
Feet
1935
1939
1943
1947
1951
1955
1959
1963
1967
1971
1976
1980
1984
1988
1992
1996
2000
2004
2008
2012
2017
Year



Prepared by:
Chatham County Engineering

Wastewater Survey Responses in Unincorporated Chatham County Septic Hot Spots

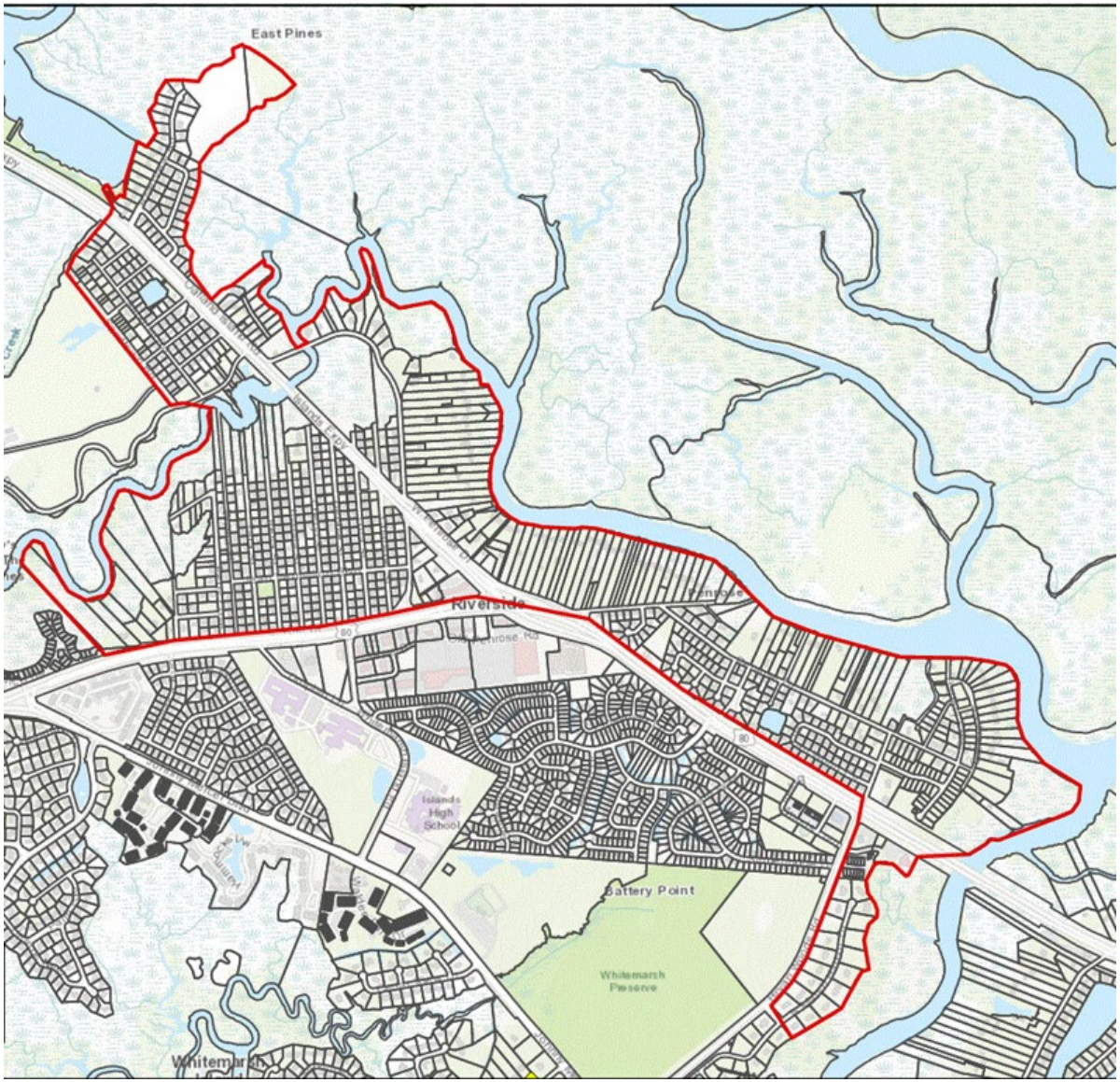
CONSEQUENCES

- **Public Health:** Pathogens entering wells and waterways
- **Environmental:** Nutrient pollution, algae blooms, marsh loss
- **Economic:** Declines in tourism, fisheries, and property values

Whitemarsh Island Service Area

Service Area

- 910 properties on the north side of the island above Highway 80 and the Islands Expressway.
- Approximated flows of 320,000 gallons per day.
- Portions are located in high water zones.



Wastewater Treatment Alternatives & Recommendations

Low-Pressure Sewer Collection System

- Offers a balance in capital and life-cycle costs, ease of system operations and maintenance, and reliability.
- Installation costs are divided between the County and user with one-third being the sewer system and two-thirds the onsite connection and pump.
- Operations and maintenance costs are divided with between the collection system and onsite pump.

Discharge to Savannah Wastewater Collection and Treatment System

- Eliminates requirement to build, operate and maintain a treatment plant.
- Reduces personnel needs, eliminates requirement for a licensed wastewater treatment plant operator.
- Longterm costs are reduced as system builds out, and more properties pay maintenance costs.
- Requires negotiations with the City for extent of construction and cost sharing.

Low-Pressure Sewer

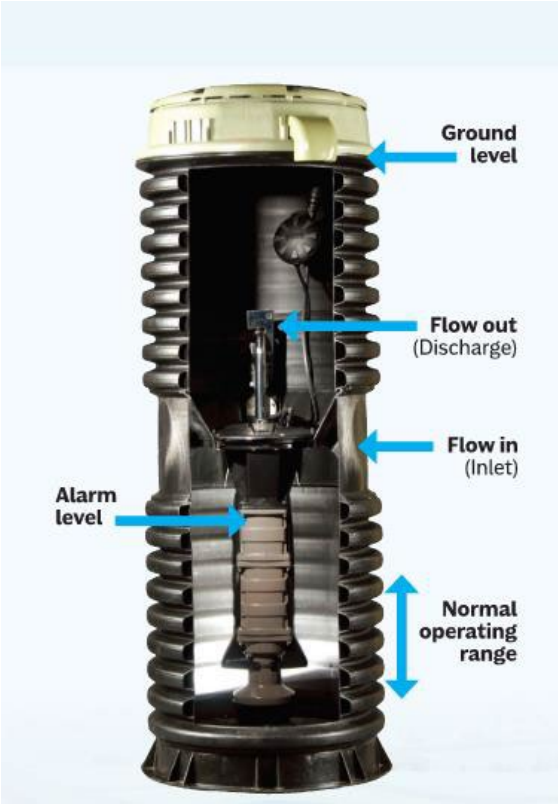
- Uses an onsite grinder pump to macerate solids in wastewater and pump the slurry mixture through the collection system. The pressure in the system is provided by the grinder pumps and systems can be designed without the need for pump stations and additional force mains.
- Collection system costs are lower, onsite costs are higher, overall costs fall between vacuum and STEP.

Advantages

- Shallow collection system using small diameter plastic pipe
- Minimizes infiltration & inflow
- Lower upfront costs
- Grinder pump is capable of handling most solids introduced including wood and plastics
- Easiest system to maintain

Disadvantages

- Limited capacity during service disruptions
- Effluent pump service life of ~20 years
- Grinder pumps require regular maintenance



Discharge to Savannah

- Requires an upgraded force main along the Islands Expressway to carry newly sewered wastewater connections to the President Street wastewater treatment plant (WWTP).
- Existing LS 131 must be expanded to transfer wastewater to the force main. LS 37, LS 144, LS 38, LS 58, LS 70 and LS 102 also require upgrades.
- Initial costs are about 2X higher, but long-term costs are spread across a population 3X larger.

Advantages

- No treatment plant to maintain, does not require a licensed treatment plant operator
- Not responsible for sludge and solids disposal or effluent discharge and NPDES environmental permit

Disadvantages

- Proposal includes significant upfront costs to connect the system to the City of Savannah's WWTP
- Chatham County would be responsible for initial construction of force main and lift station upgrades
- Added costs for upgrades to collection system

Whitemarsh Island Septic Conversion Public Meeting

Lauren Baker-Newton, MPH, REHS
Environmental Health County Manager
Chatham County Health Department

Regulation of Onsite Sewage Management Systems (OSSMS)

The Georgia Department of Public Health, under Official Code of Georgia Annotated (O.C.G.A.) 31-2-7, has the power to:

- Create rules for onsite sewage/ septic systems) across the whole state (Chapter 511-3-1).

- Approve new or experimental types of septic systems before they can be used in Georgia.

County Boards of Health have more limited powers. They can only regulate six specific things:

- Decide **where** septic systems are allowed.

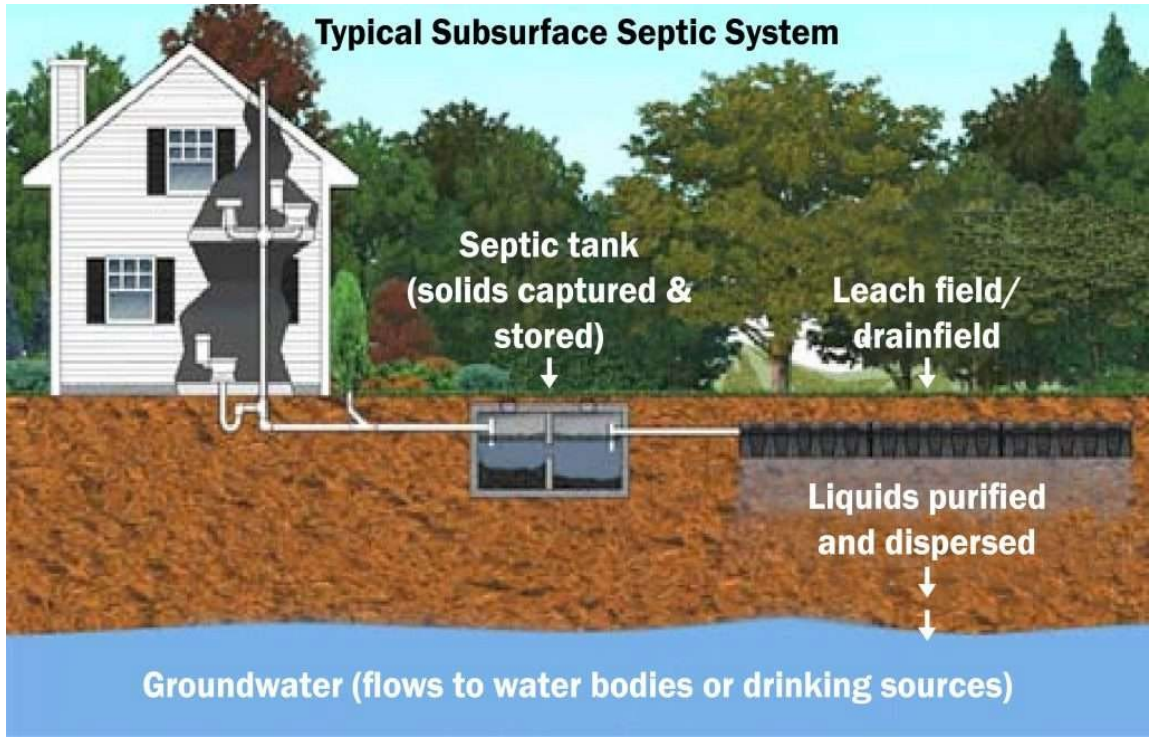
- Set **minimum lot (property) sizes** for homes using septic systems.

- Decide **what types of buildings** (homes, businesses, facilities) can use septic systems.

- **Issue permits** to install septic systems.

- **Inspect** the systems after they're installed.

- Require **ongoing maintenance**, except for simple, non-mechanical residential systems (basic septic systems without mechanical parts).



Conventional
Onsite Sewage Management Requirements

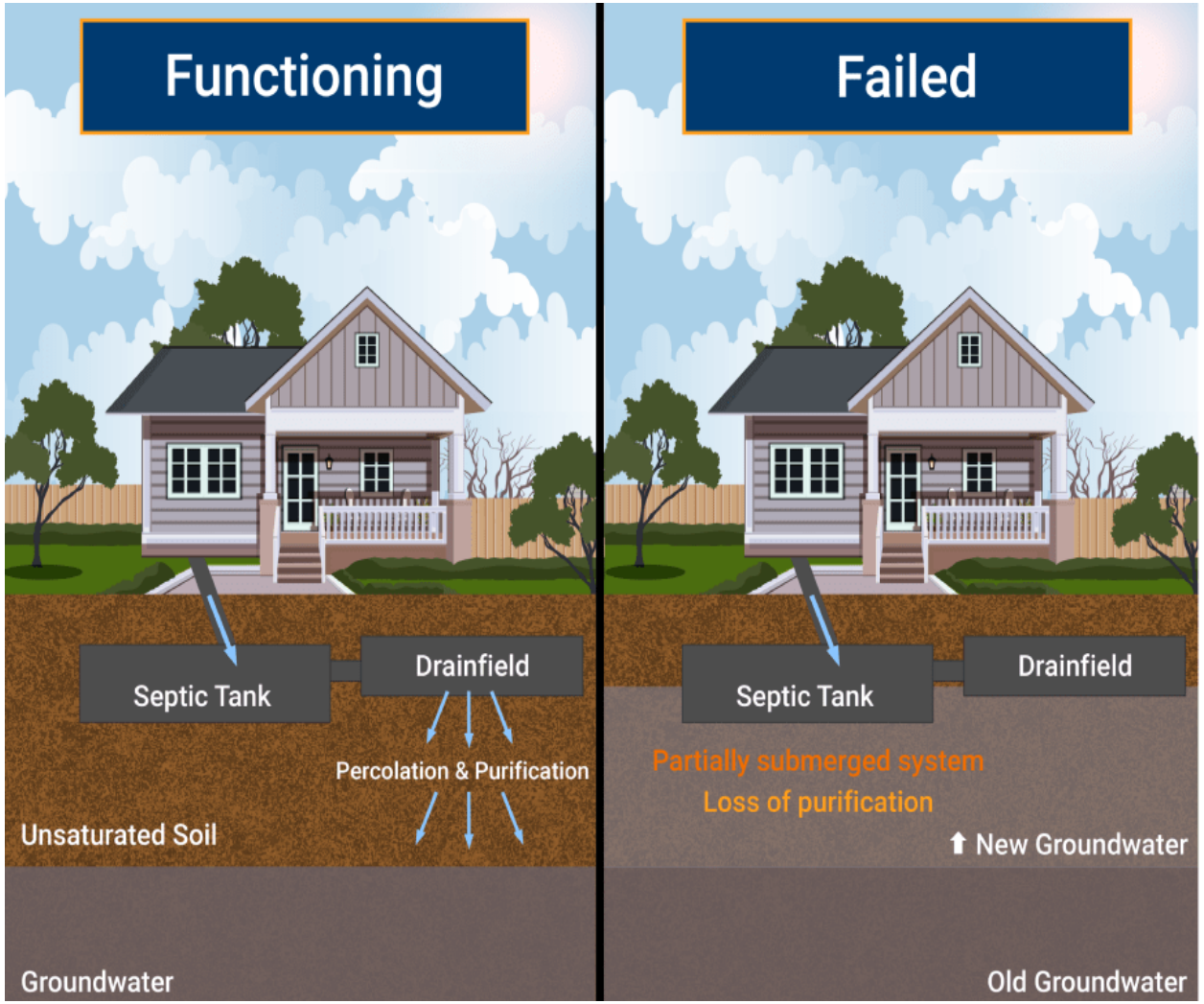
- 24" of separation from seasonal high-water table (SHWT)

- Required lot size – ½ acre minimum
  - Frequent space & installation challenges due to smaller lots

- In the last 5 years*,
  - Average Seasonal High Water Table: 28"
  - Average system height of conventional system: 8" with 6" of topsoil cover (14" above grade)
    - Data was pulled based upon Gray's Subdivision

- Average Cost: $10,000 -$15,000 or higher
    - Based upon estimates provided by local septic contractors

How Does Flooding Affect Septic Systems



- Septic systems located in floodplains are subject to failing due to frequent flooding caused by:
  - Coastal storm surge
  - Poor soils
  - Tidal flushing
  - High water tables

- This is made worse by sea level rise

Installation of Onsite Sewage Management Systems Within the Special Flood Hazard Area

- Adopted August 2024
- Limits amount of fill allowed within the special flood hazard area

"No fill used as structural support or to elevate areas used for an OSSMS shall be placed on undeveloped parcels of land within areas of special flood hazard designated as Coastal Hazard Areas (v-Zones) and Coastal A Zones or Limits of Moderate Wave Action (LiMWA)"

"No fill shall be placed within areas of special flood hazard designated as Zone AE without the approval of the Department of Engineering, Floodplain Management"

Advanced Treatment Systems

- Produces Class I Effluent
  - Allows 12-inch separation from SHWT
- Must be Engineer Designed
  - Average engineering cost: $1,200+
- Average installation cost ~ $15,000-$20,000
  - Based upon estimates provided by local septic contractors

Low Pressure System Lot Components