

Septic Tank Work Session

Board of County Commissioners Meeting

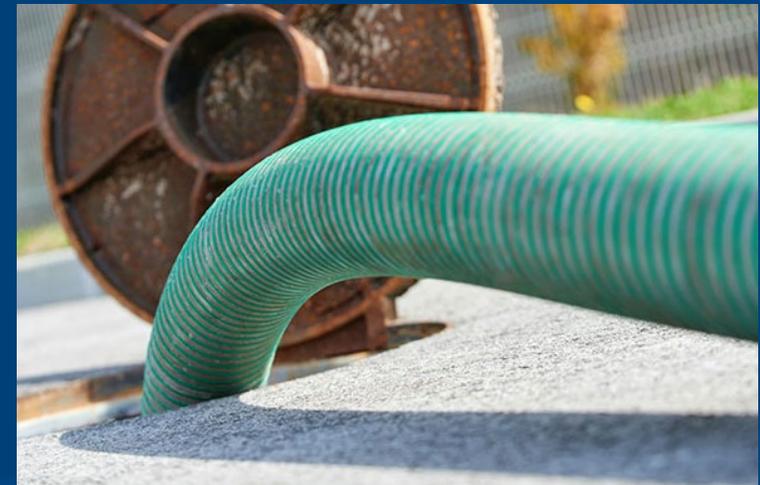
Date: December 9, 2025

C. Robert Reiss, PhD, PE – Reiss Consulting Solutions/CHA Consulting

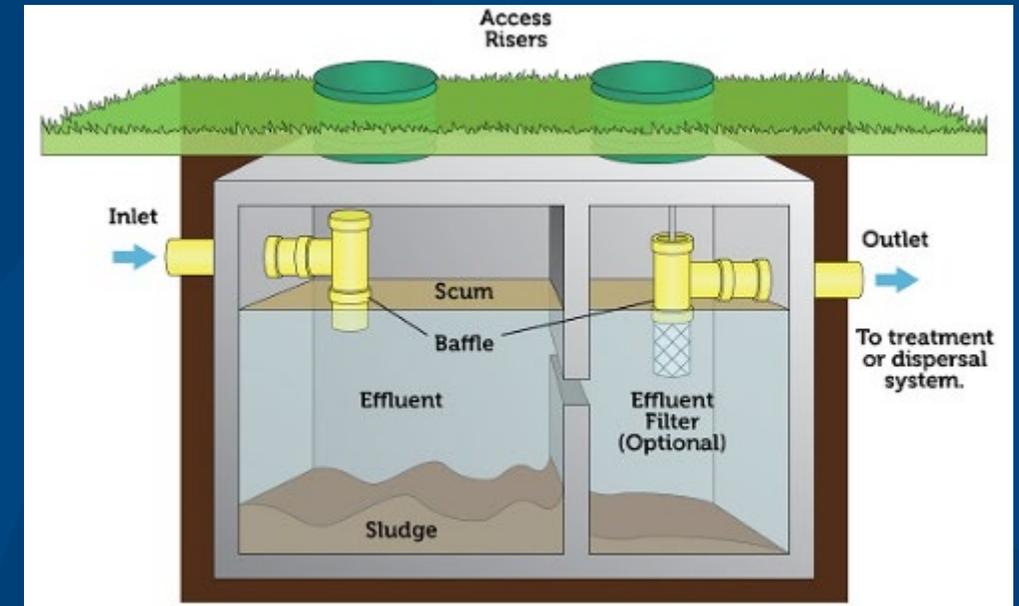
Kim Ornberg, PE – Environmental Services Director

Johnny Edwards, PE – Utilities Director

- Purpose
- Background
- Advanced Septic Status
- Septic to Sewer - Total Program Cost Estimates
- Septic to Sewer - First Project Options
- Next Steps
- Board Discussion and Staff Direction

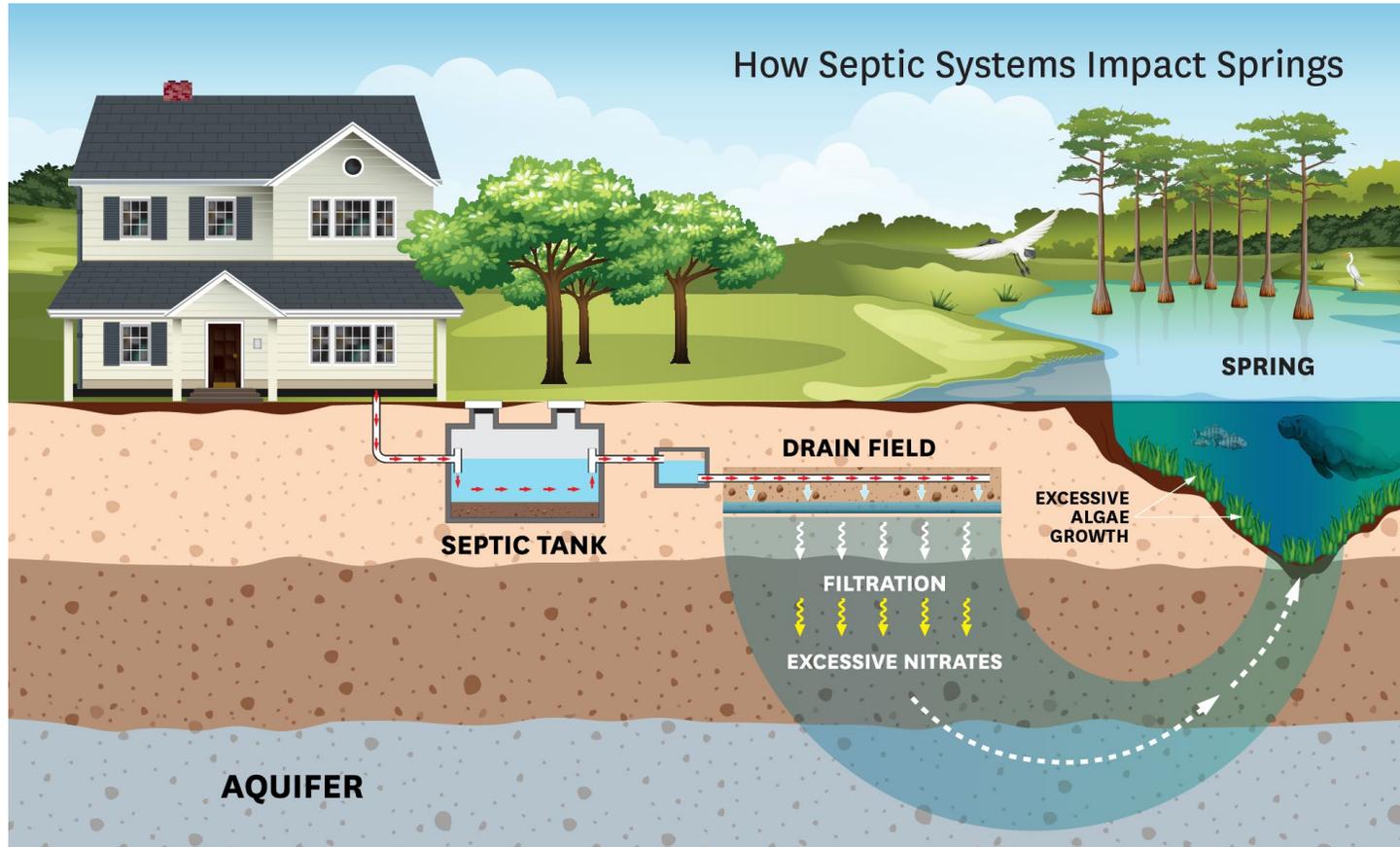


- To update the Board on the status of Septic to Sewer and Advanced Septic Programs.
- To seek Board direction on the first Septic to Sewer Project.



Background

Seminole County Septic to Sewer Program



CONVENTIONAL SEPTIC TANKS

A septic tank is a buried container that holds the wastewater long enough to allow solids to settle to the bottom while the liquid is drained into the environment.

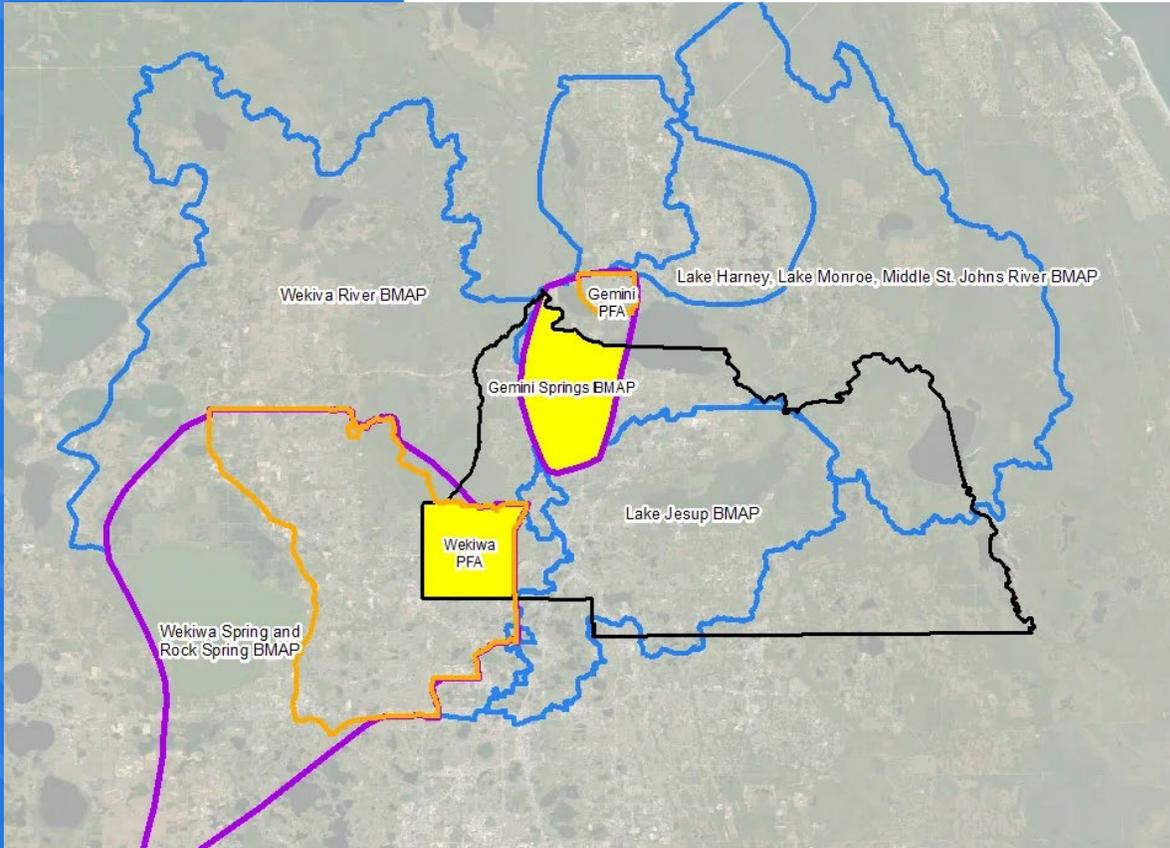
State Mandated Watershed Protection

BASIN MANAGEMENT ACTION PLANS (BMAP)

- BMAPs purpose to restore an impaired water body by reducing pollutants.
- Septic tanks have been identified as major contributors to nutrient pollution.

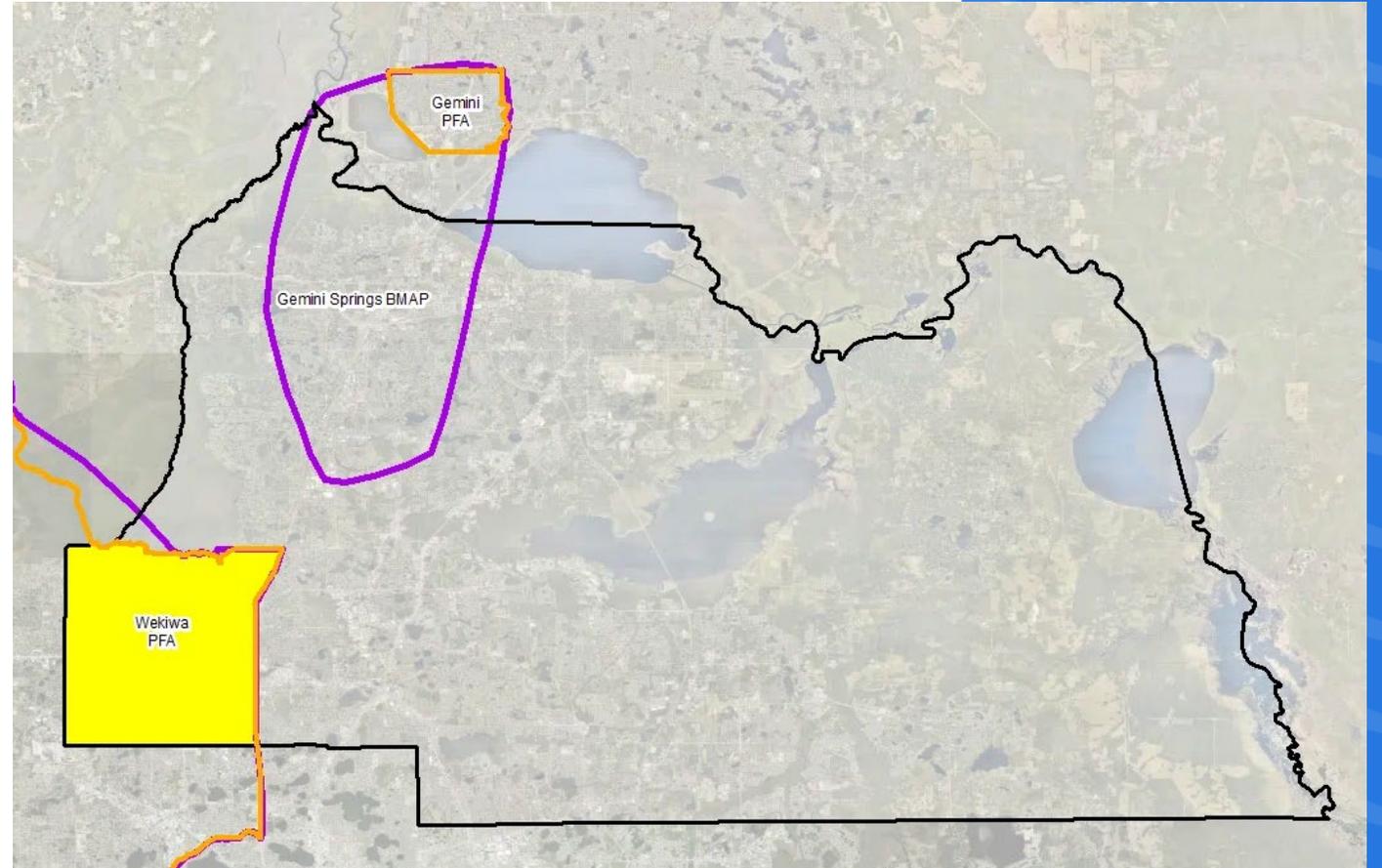
PRIORITY FOCUS AREA (PFA)

- Florida Legislature identified 30 Outstanding Florida Springs (OFS) that require additional protection.
- A PFA is an area within a BMAP where the Floridan aquifer is most vulnerable to pollutant inputs and where there is a known connectivity between groundwater pathways and an Outstanding Florida Spring (OFS).



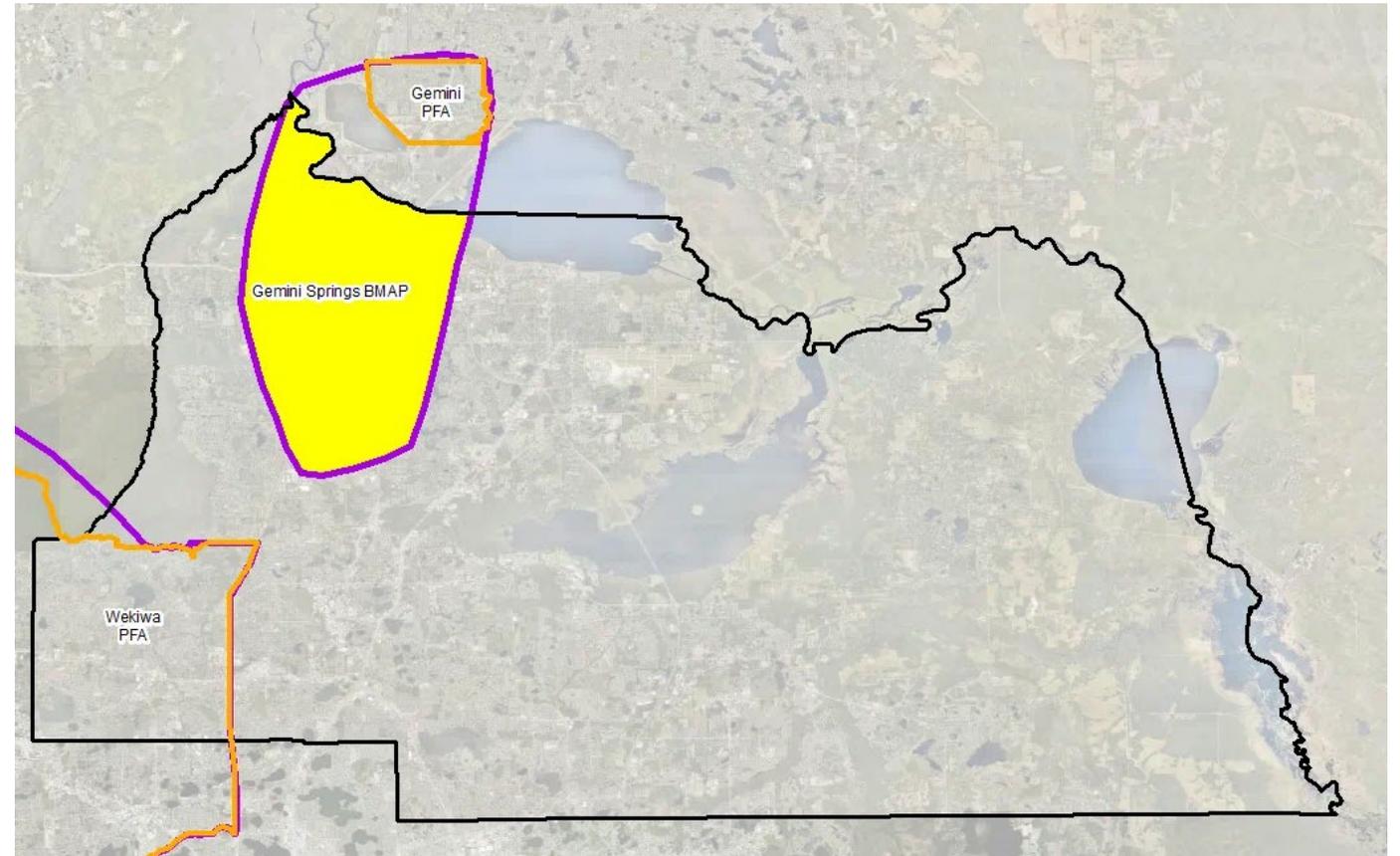
2016 Florida Springs and Aquifer Protection Act

- Defined requirements for improving OFS
- Seminole County has until 2038 to complete remediation of septic tanks.
- Remediation required for parcels 1 acre or less.



2023 House Bill 1379

- For BMAPs that include an OFS, bill expands remediation plan from a PFA to the entire BMAP
- All the septic tanks within the Gemini Springs BMAP will need to be remediated by the same 2038 deadline
- Remediation required for parcels 1 acre or less



Remediation Options

1. SEPTIC TO CENTRAL SEWER

WHAT	Wastewater is conveyed to a treatment plant for advanced treatment
PRO	<ul style="list-style-type: none">• Eliminates direct discharge/pollution to groundwater & Wekiva Springs• Treated wastewater can be used for irrigation• Minimal homeowner maintenance• Increased property value
CON	<ul style="list-style-type: none">• Monthly sewer bill• High Capital Costs• Temporary roadside related construction (larger temporary construction footprint)

2. ADVANCED ON-SITE SEPTIC TREATMENT UNITS

WHAT	On-site Advanced Treatment System
PRO	<ul style="list-style-type: none">• Less temporary construction (no roadside construction)• Possibly lower monthly maintenance cost (no monthly sewer bill)
CON	<ul style="list-style-type: none">• Reduced (but not eliminating) pollution to groundwater (~65% reduction vs 100% reduction)• Homeowner responsible for maintenance and may possibly require electricity

Both options anticipated to be utilized.

Septic Tank Remediation

Wekiva PFA

Wastewater Service Area	Estimated No. Of Septic Tanks
Seminole County Utilities Department	2,932
Sunshine Utilities	768
City of Altamonte Springs Service Area (Outside City Boundary)	150
Total	3,850

12 additional septic tanks located within Altamonte Springs City Boundary – Not County’s Responsibility.

CHA Consulting study recommended 2,859 tanks for central sewer and 73 for advanced septic based on engineering feasibility.

Gemini BMAP

Wastewater Service Area	Estimated No. Of Septic Tanks
Seminole County Utilities Department	1,109
City of Sanford Service Area (Outside City Boundary)	118
City of Lake Mary Service Area (Outside City Boundary)	-
Florida Government Utility Authority	32
Total	1,259

1,181 additional septic tanks located within Sanford and Lake Mary City Boundaries – Not County’s Responsibility.

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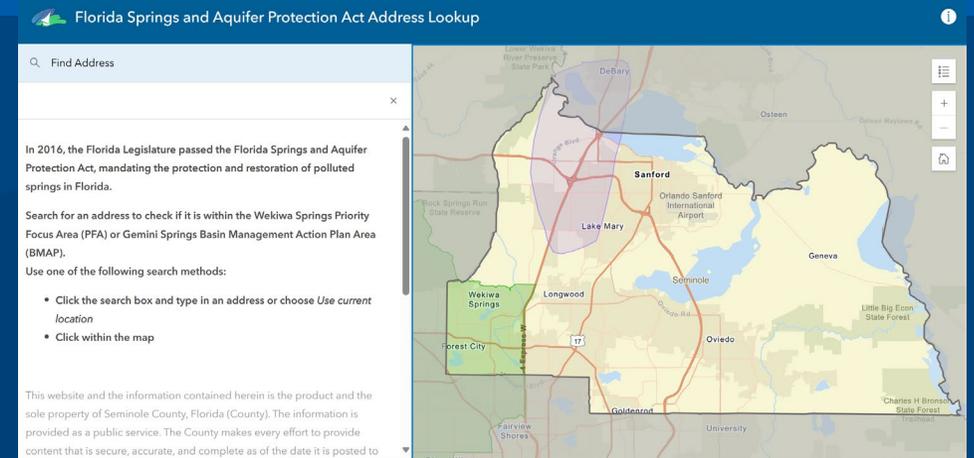


Wekiwa Advanced Septic Tank Program Overview

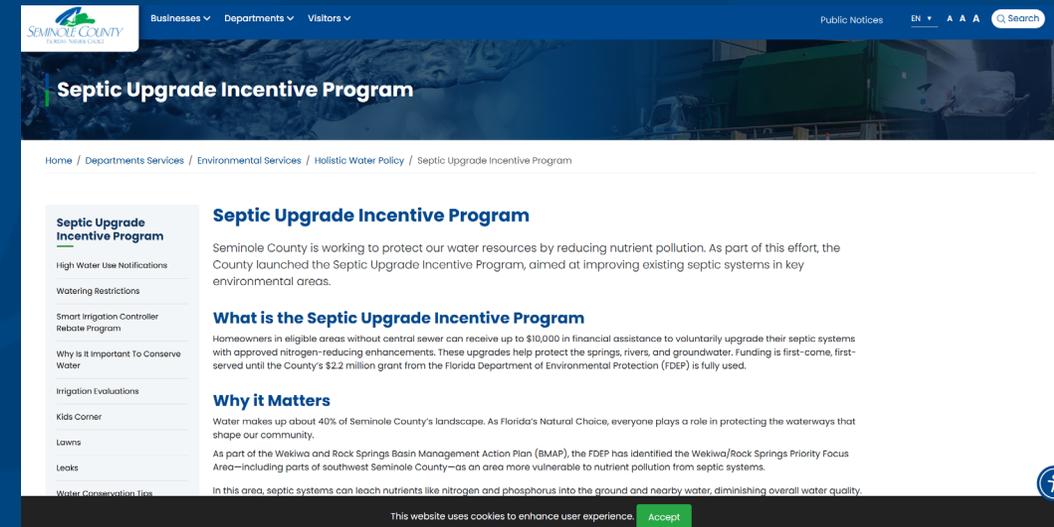
- Program History
 - FDEP Grant
 - Approved in July 2025
 - Total: \$2.2 million, including administrative costs
 - Maximum reimbursement per septic upgrade: \$10,000
 - Paid to homeowner after completion of work
- Program Details
 - ***Existing*** septic tanks in the ***Wekiwa PFA only***
 - Residential lots less than 1 acre
 - Program is ***currently voluntary***

Advanced Septic Program Status

- Coordination with:
 - Seminole Dept of Health
 - Florida Onsite Wastewater Assn (FOWA)
- Website Development:
 - Program overview
 - Homeowner & Contractor Instructions
 - Eligibility Lookup Tool
 - Licensed contractor list
- Outreach/Communication
 - Formal launch of website
 - Directly contact identified homes



Eligibility Lookup Tool



Septic Upgrade Incentive Site

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Program Cost Estimates

- Consider three options for compliance with the current Legislation and BMAPs by 2038:
 - Convert all affected septic tanks to advanced septic tanks,
 - Connect all affected septic tanks (homes) to central sewer,
 - Combination of advanced septic and septic to sewer solutions
- Present cost estimates of what expenses COULD be to comply with legislation and how they might be paid.
- **WARNING – Compliance is not cheap!!**

Program Cost Estimates

Option	Tanks	Estimated Capital Cost of Septic to Sewer Only*	Estimated Capital Cost of Septic to Sewer and Reclaim*	Estimated Capital Cost of Advanced Septic Tanks
Wekiva	2,859	\$218-304M	\$309-393M	\$57-114M
Gemini	1,109	\$131M	\$208M	\$22-44M
Subtotal	3,968	\$349-435M	\$517-601M	\$79-158M
Advanced**	73	\$1.46-2.92M	\$1.46-2.92M	\$1.46-2.92M
TOTAL	4,041	\$350-438M	\$518-604M	\$80-161M

* 2024 dollars, from CHA Technical Memorandum, February 2025 (September 2025 Update)

** Septic tanks in areas unlikely to receive sewer

- Advanced septic tanks are \$20-40K, installed, per FDOH
- Septic to Sewer costs, without reclaimed water, in the Wekiva area are around \$75K per home on the low end of the range
- Septic to Sewer costs, with reclaimed water, in the Gemini area are around \$187K per home

WHY IS SEPTIC TO SEWER SO EXPENSIVE?

- With new developments, utilities are typically installed first, and the costs are spread across the prices of new residences
- With Septic to Sewer Construction:
 - Installation of sewer main requires excavation and rebuilding of roads
 - Installation of sewer lateral from home to sewer main
 - Abandonment of septic tank
 - Likely installation of new pump station(s)
 - Treatment capacity cost
 - Construction in occupied, residential areas



FOR ILLUSTRATIVE PURPOSES:

WHAT IF OWNERS OF AFFECTED SEPTIC TANKS
PAID FOR THE SEPTIC TO SEWER CONVERSION?

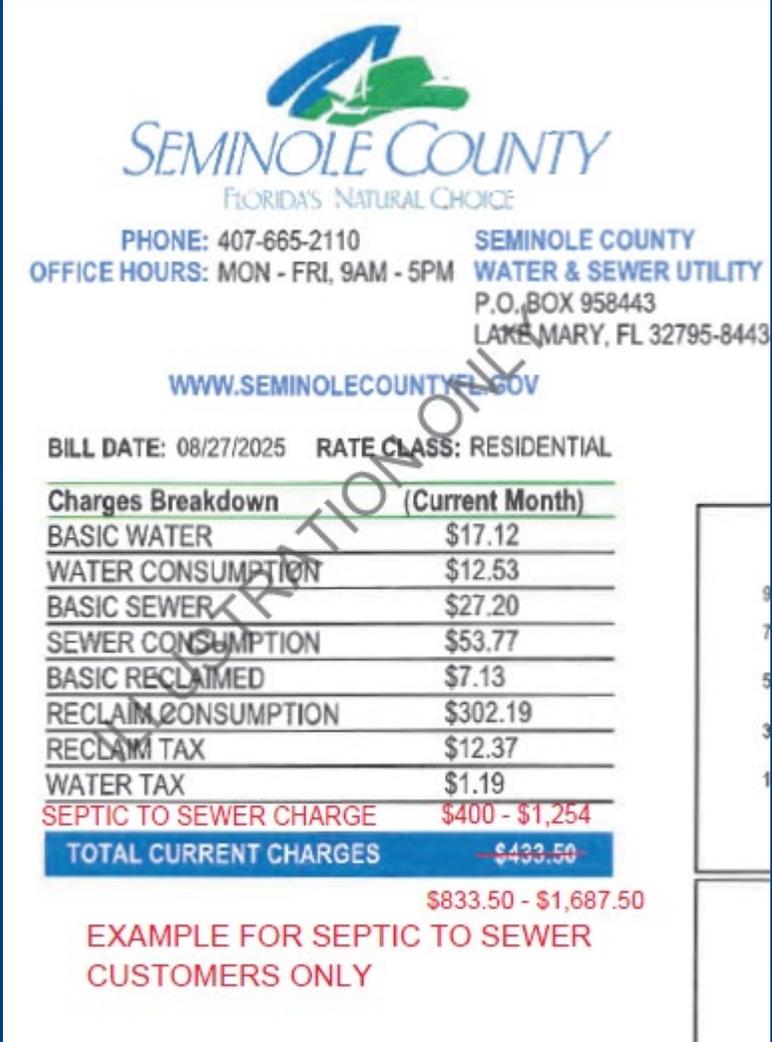
Septic to Sewer Program Cost Estimate Illustration If Only Affected Owners Pay

• ASSUMPTIONS

- Achieve compliance by 2038
- Three WPFA projects of about 953 tanks each, then Gemini with 1,109 tanks
- Four 30-year loans @ 4% to fund each project
- Construction cost inflation @ 4.5%
- No new grant funding
- Paid only by owners of affected lots (or customers)

• RESULTS

- 30 years of monthly payments of ~\$400-\$1,254
- Compliance with State Law / Environmental Benefit



SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

PHONE: 407-665-2110 SEMINOLE COUNTY
OFFICE HOURS: MON - FRI, 9AM - 5PM WATER & SEWER UTILITY
P.O. BOX 958443
LAKE MARY, FL 32795-8443

WWW.SEMINOLECOUNTYFL.GOV

BILL DATE: 08/27/2025 RATE CLASS: RESIDENTIAL

Charges Breakdown	(Current Month)
BASIC WATER	\$17.12
WATER CONSUMPTION	\$12.53
BASIC SEWER	\$27.20
SEWER CONSUMPTION	\$53.77
BASIC RECLAIMED	\$7.13
RECLAIM CONSUMPTION	\$302.19
RECLAIM TAX	\$12.37
WATER TAX	\$1.19
SEPTIC TO SEWER CHARGE	\$400 - \$1,254
TOTAL CURRENT CHARGES	-\$433.50

\$833.50 - \$1,687.50

EXAMPLE FOR SEPTIC TO SEWER CUSTOMERS ONLY

FOR ILLUSTRATIVE PURPOSES:

WHAT IF SEPTIC TO SEWER COSTS WERE SPREAD
ACROSS ALL COUNTY UTILITIES CUSTOMERS?

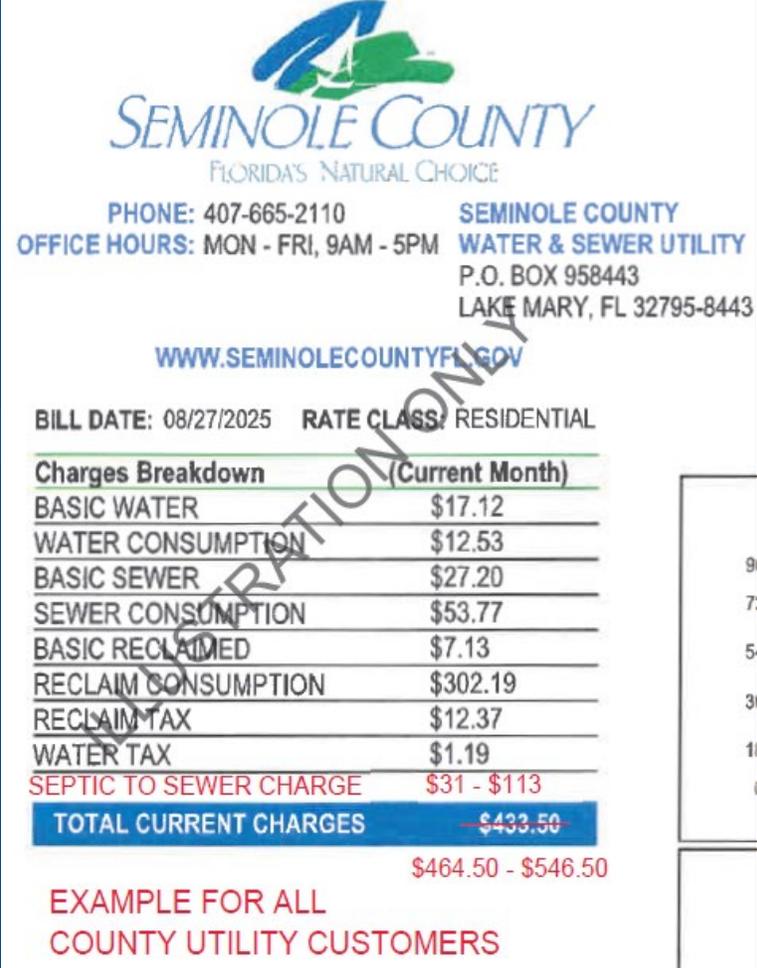
Septic to Sewer Program Cost Estimate Illustration If All Utilities Customers Pay

• ASSUMPTIONS

- Achieve compliance by 2038
- Three WPFA projects of about 953 tanks each, then Gemini with 1,109 tanks
- Four 30-year loans @ 4% to fund each project
- Construction cost inflation @ 4.5%
- No new grant funding
- Paid by all County Utilities customers (46,211 existing + 3,019 new)

• RESULTS

- 30 years of monthly payments of ~\$31-\$113
- Compliance with State Law / Environmental Benefit
- NOTE: Current average utility bill is just over \$100/month



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RECLAIM TAX	\$12.37
WATER TAX	\$1.19
SEPTIC TO SEWER CHARGE	\$31 - \$113
TOTAL CURRENT CHARGES	\$433.50
	\$464.50 - \$546.50

EXAMPLE FOR ALL
COUNTY UTILITY CUSTOMERS

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Septic to Sewer First Project Options

Typical Septic to Sewer Project has at least 3 funding sources

- Homeowner Participation
- Local / Utility Participation
- Grants and Appropriations

Septic to Sewer First Project Options

- Grant Funding
 - \$10,000,000 – FDEP Grant (50% Match Requirement)
 - \$ 1,000,000 – Legislative Appropriation (Counts toward match requirement)
 - \$ 1,600,000 – EPA Appropriation (Counts toward match requirement)
- Funding minimum to comply with FDEP Grant is \$20.0M (\$12.6M external + \$7.4M County)
- \$ 9,006,230 – Available CIP budget designated for Septic to Sewer

Septic to Sewer First Project Options Homeowner Participation

- Connection to sewer is REQUIRED when gravity main is available as provided by *Section 381.00655(1)(a)* Florida Statutes and Section 270.1, Seminole County Code of Ordinances.
 - \$3,175 – County wastewater capacity fee
 - \$6,000-\$10,000 – Estimated cost of septic tank abandonment and connecting to sewer gravity main
 - Total homeowner expense is about \$9-13 thousand
- Total homeowner expense with Advanced Septic is about \$10-30 thousand (with current grant program)

Septic to Sewer First Project Options Homeowner Participation

EXAMPLES OF HOMEOWNER PARTICIPATION AND FUNDING OPTIONS

OPTION	SOURCE and PARTICIPATION	TOTAL FUNDS (\$)	TANKS	ESTIMATED PAYMENT OPTIONS*			
				20 YEARS		30 YEARS	
				Annual	Monthly	Annual	Monthly
1	Grants / Utility	20,025,000	267				
2	Owner 5% (\$3,750)	1,001,250	+13	\$288.29	\$23.72	\$230.22	\$19.00
3	Owner 10% (\$7,500)	2,002,500	+26	\$576.57	\$47.45	\$460.44	\$38.00
4	Owner 15% (\$11,250)	3,003,750	+40	\$864.86	\$71.17	\$690.65	\$57.00

*Estimated at \$75,000 per tank and 4.5% interest

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- Continue to apply for grants and appropriations.
- Schedule a Septic to Sewer Work Session to establish parameters for program moving forward with the Total Program.
- Annual allocation for septic to sewer in Master Plan CIP to be presented to BCC in January.

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Board Discussion and Staff Direction

- Proceed with First Septic to Sewer Project in WPFA to utilize existing grants?
- Homeowner participation level to be included through MSBU or Special Assessment District?
- Use homeowner funds to increase scope (tanks remediated), or return to utility fund?

EXAMPLES OF HOMEOWNER PARTICIPATION AND FUNDING OPTIONS

OPTION	SOURCE and PARTICIPATION	TOTAL FUNDS (\$)	TANKS	ESTIMATED PAYMENT OPTIONS			
				20 YEARS		30 YEARS	
				Annual	Monthly	Annual	Monthly
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