

Utilities Department

**Septic-to-Sewer in Your Neighborhood
Public Workshop
Lake Bosse Oaks & Cobble Stone
Riverside Woods
Lakeside Woods**

December 1, 2022

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Presentation Outline

- **Welcome**
- **Background**
- **Basin Management Action Plan (BMAP)**
- **Septic-to-Sewer Basics**
- **Cost and Responsibilities**
- **Next Steps**
- **Questions**
- **Straw Poll**

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Welcome



District 2 Commissioner
Christine Moore
District2@ocfl.net

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Background

- Wekiwa Springs form the headwaters of the Wekiva River, a tributary to the St. Johns River
- Wekiwa Springs state park has been enjoyed by visitors from all over the country and world since 1970
- Wekiwa Springs is an important destination for swimming, camping, hiking, and canoeing



Photo: Orlando Sentinel

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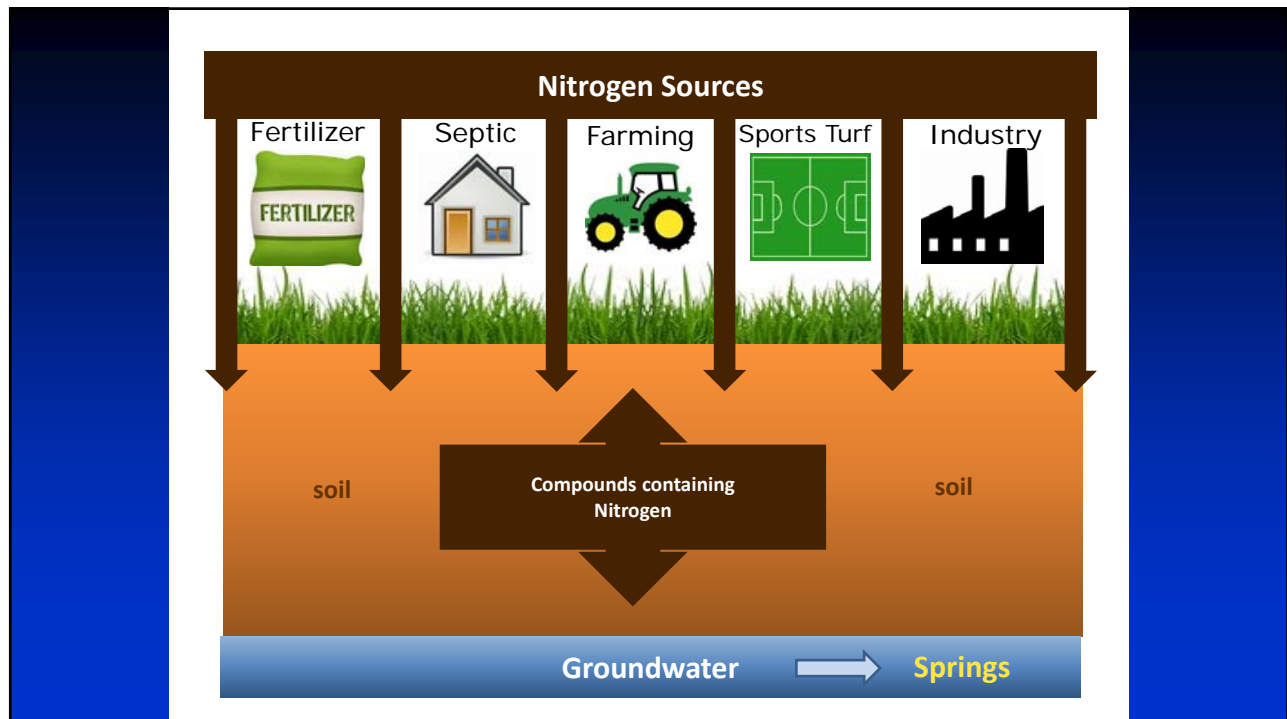


Background

- Florida Springs and Aquifer Protection Act (Part VIII of Chapter 373, F.S.) provides for the protection and restoration of Outstanding Florida Springs (OFS)
- FDEP has assessed the water quality in each OFS. Wekiwa Spring and Rock Springs are impaired from **high nutrient levels**
- FDEP formulated a “Basin Management Action Plan” (BMAP) to **reduce nutrient loading** to springs

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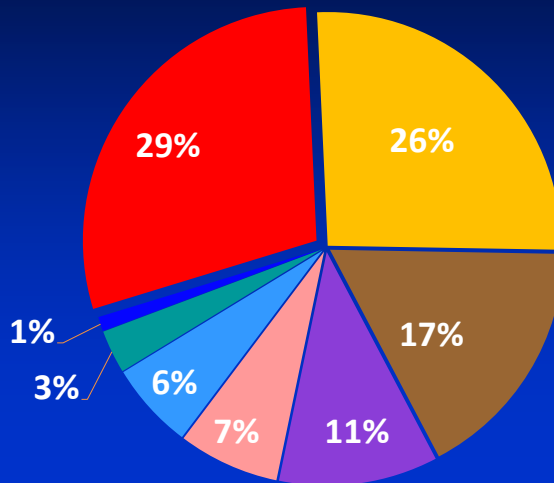
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Background

Nitrogen Loading Sources (per Wekiwa BMAP 2018)

- Septic Systems
- Urban Fertilizer
- Wastewater Trt Facility
- Farm Fertilizer
- Sports Turf
- Atmospheric Deposition
- Nurseries
- Livestock Waste



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Background

To address nitrogen loading from septic systems, the State is requiring the following action plan:

- No new conventional septic systems on lots <1 acre
- New septic systems must provide **enhanced nutrient treatment**
- Homeowners will be required to upgrade conventional septic tanks on lots < 1 acre or convert them to sewer within 20 years

All homeowners affected

You have been selected for central sewer. We will hold a straw poll to see if you would like to connect to central sewer.

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Basin Management Action Plan

- Delineates a “Priority Focus Area” (PFA)
- Describes restrictions within the PFA:
 - Wastewater disposal facilities
 - Biosolids application
 - Certain agricultural operations
 - New septic systems
- Presents a Septic System Remediation Plan



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Basin Management Action Plan

What are Septic Tank Systems?

- Collect wastewater in a watertight tank:
 - Solids settle to the bottom
 - Liquid (effluent) exits the tank to a drain field
- Drain field:
 - Spreads effluent into unsaturated soil where it is filtered naturally
 - Filtered effluent seeps into the groundwater
 - Some nutrients remain in the filtered effluent



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Basin Management Action Plan

What are Enhanced Nutrient Treatment Septic Systems?

- Like a Conventional septic tank:
 - Collects wastewater in a watertight tank
 - Liquid (effluent) exits the tank to a drain field
- Enhanced Nutrient Reducing Features:
 - Uses aeration, recirculation, or some other method to filter effluent
 - Reduces nutrients before filtered effluent seeps into the groundwater
 - Requires operation, maintenance, and power by homeowner



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Basin Management Action Plan

- **Enhanced Nutrient Treatment Septic System Costs:**
 - Capital costs range from \$19,300 to \$23,900 per system (2021 estimate)
 - Maintenance costs range from \$44 to \$49 per month (2021 estimate)
 - Require power (electrical costs paid by homeowner)

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Basin Management Action Plan

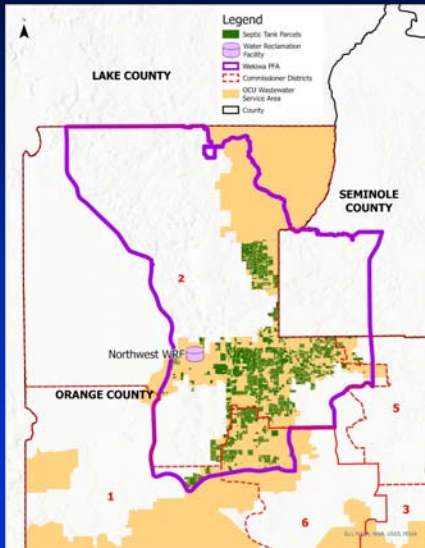
- **A Feasibility Study is 90% complete and will address septic systems**
 - Required by the Florida Springs and Aquifer Protection Act
 - Inventories septic systems in the PFA
 - Prioritizes subdivisions for sewer conversion based on FDEP-approved criteria
 - You were selected to connect to sewer, but we need your concurrence which will be determined using a straw poll at an upcoming meeting next month
 - Without your concurrence, you will need to work with the State directly to upgrade your septic system

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Basin Management Action Plan



- Septic tank parcels in Orange County (per Feasibility Study):
 - 17,762 in the PFA
 - 1,608 sewer conversions already grant funded
 - Approximately 2,000 additional homes selected for low-pressure (e.g., grinder)
 - Remainder to be upgraded to enhanced treatment septic systems

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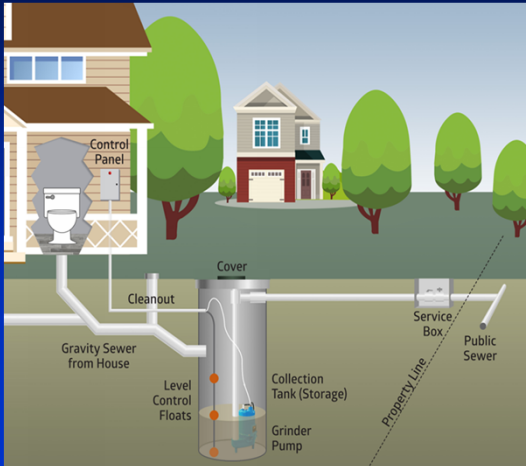
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Septic-to-Sewer Basics

Grinder Pump System



- New grinder pump station to replace septic tank structure
- Effluent pumping unit, service laterals, and cleanouts installed
- Junction box installed (powered by homeowner)
- Homeowner responsible for monthly wastewater bill

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Septic-to-Sewer Basics

Benefits of Grinder Pump System:

- Advanced treatment at central facility; removes nutrients from being discharged to springs
- Minor right of way excavation for smaller pipes
- Minor disruption to streets, sidewalks, etc. during construction
- Access to state grants
- Alleviates homeowner maintenance burden

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Septic-to-Sewer Options

What to expect during construction:

- Directional drilling
- 2-inch pipe (typical)
- Connection to existing sewer
- Electrical panel



Photos courtesy of Vero Beach

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Cost and Responsibilities

Anticipated Costs

- Total project cost estimated at \$39,000 per parcel (2021 estimate)
 - 25% Orange County
 - 60% State Grants
 - ~15% Homeowner (\$5,850)
- Nutrient-reducing projects like this are eligible for state and federal grants
- Uses same amount of electricity compared to advanced septic system
- Maintenance and repairs will be handled by OCU

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Cost and Responsibilities

Homeowner Responsibilities:

- Monthly wastewater bill (based on potable water use) (\$50.06)
- Monthly electric bill (\$0.45)
- No more septic tank responsibility
 - Permitted, owned, and maintained by Orange County Utilities

Water and Wastewater Rate Schedule		
Residential and Commercial		
Fixed Monthly Charge by Meter Size		
Meter Size	Water	Wastewater
¾" by ¾"	\$8.26	\$19.33
<small>Applies to most single-family homes</small>		
1"	\$14.71	\$43.00
1½"	\$25.40	\$82.43
2"	\$38.23	\$129.77
3"	\$72.50	\$255.98
4"	\$111.02	\$397.99
6"	\$218.03	\$792.44
8"	\$346.44	\$1,265.77
10"	\$539.05	\$1,975.74
Residential Volume Charges		
Water in Gallons	Per 1,000 Gallons	
0–3,000	\$1.31	
4,000–10,000	\$1.81	
11,000–20,000	\$3.61	
21,000–30,000	\$7.20	
31,000 and above	\$14.37	
Wastewater	Per 1,000 Gallons	
All Consumption	\$4.39	
<small>Single-family/Mobile Home (maximum 14,000 gallons)</small>		
<small>Multifamily (2–4 units) (maximum 25,000 gallons)</small>		

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Cost and Responsibilities

<u>Estimated Homeowner Cost Responsibilities</u>	<u>Orange County Utilities-owned & maintained grinder sewer</u>	<u>Homeowner-owned & maintained nutrient-reducing septic system</u>
Capital Costs:	\$5,850	\$19,300 - \$23,900
<i>Monthly O&M</i>		
Maintenance Costs:	\$0	\$44 - \$49
Electric Costs:	\$0.45	\$0.45
Utility Bill:	\$50.06	\$0

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Next Steps

- Request input from community (straw poll)
 - This is 1 of 6 communities that will be invited to meetings on the topic of the Septic-to-Sewer Program
- Complete Feasibility Study
- Pursue program funding
 - Request grandfathering of conventional septic tanks until conversions

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Next Steps

- Municipal Service Benefit Unit (MSBU) enables Orange County to levy non-ad valorem assessment for special service
- MSBUs result in the funding commitment that allows for possible grandfathering of conventional septic tanks until conversions
- 67% of ballots “In Favor” of project is required
 - Orange County Comptroller mails official ballots
 - Ballots must be returned to Comptroller
 - If ballot passes, each and every homeowner is responsible for connection cost (if house is sold, remains with property; not individual)
 - Financed over 10-year period

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Next Steps

- **Potential schedule:**
 - Feasibility Study complete by April 2023
 - MSBU official ballot (2024 to 2026)
 - Convert 200 parcels per year, beginning 2026:
 - Design: 1.5 years
 - Land acquisition: 0.5 years
 - Construction: 2 years
 - 2,000 parcels by 2036

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Questions

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October 27, 2022

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