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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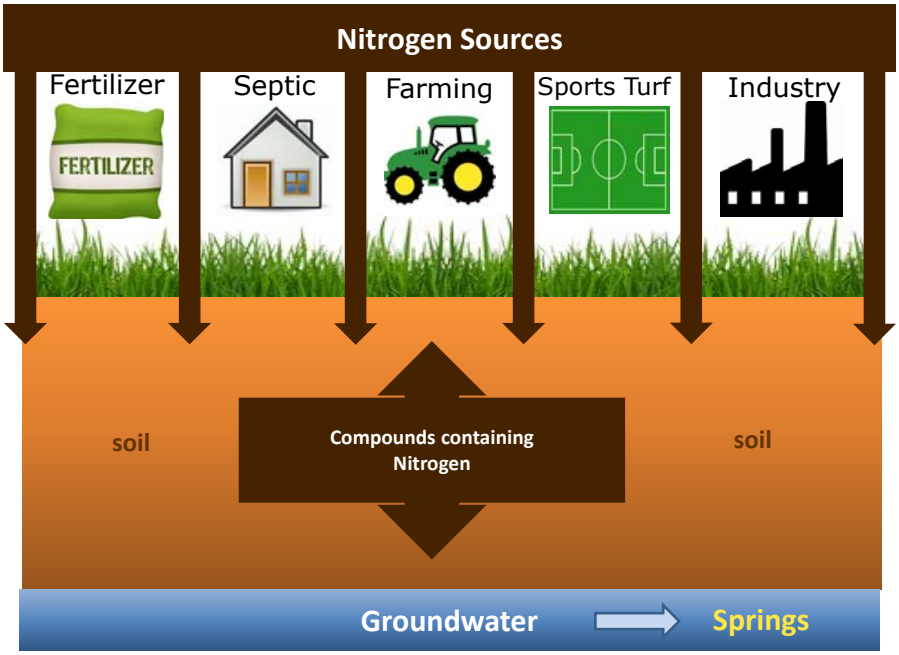

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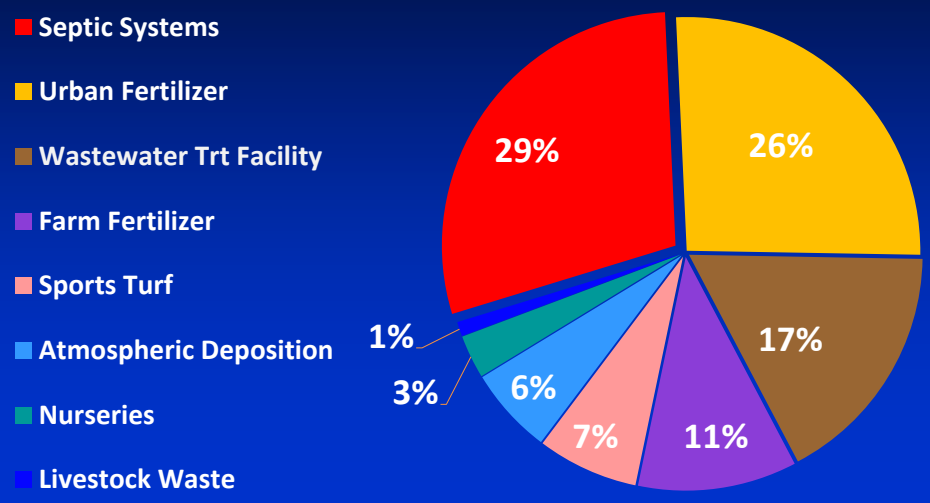
Background

Nitrogen Loading Sources (per Wekiwa BMAP 2018)



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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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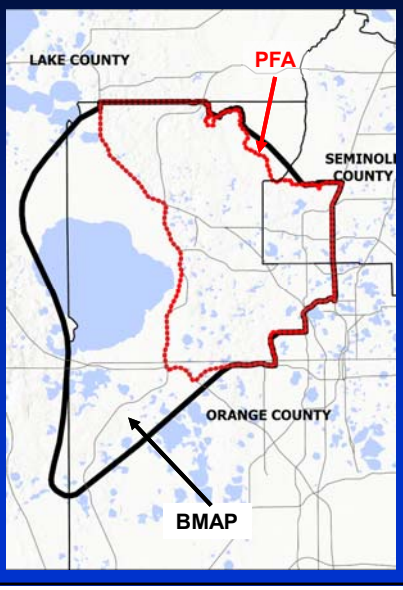
Basin Management Action Plan

- 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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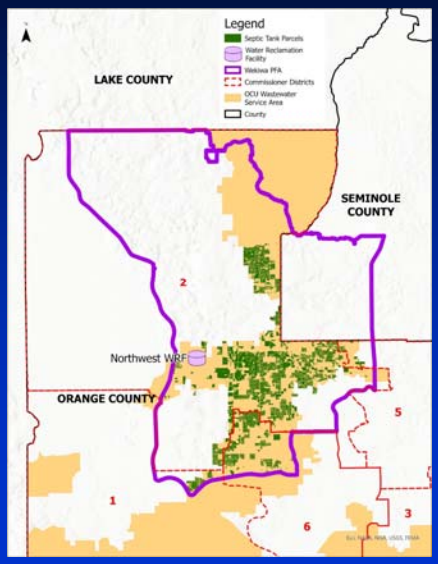
Basin Management Action Plan



- 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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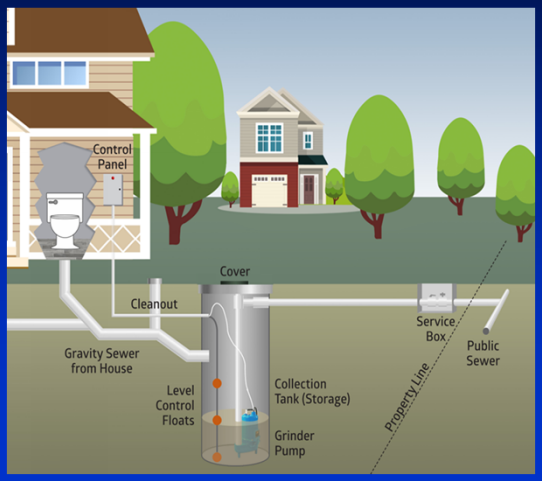
Septic-to-Sewer Basics

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

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
⅝" by ¾" *Applies to most single-family homes*	$8.26	$19.33
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
Single-family/Mobile Home *(maximum 14,000 gallons)*	
Multifamily (2–4 units) *(maximum 25,000 gallons)*	

Cost and Responsibilities

Estimated Homeowner Cost Responsibilities	Orange County Utilities-owned & maintained grinder sewer	Homeowner-owned & maintained nutrient-reducing septic system
Capital Costs:	$5,850	$19,300 - $23,900
Monthly O&M		
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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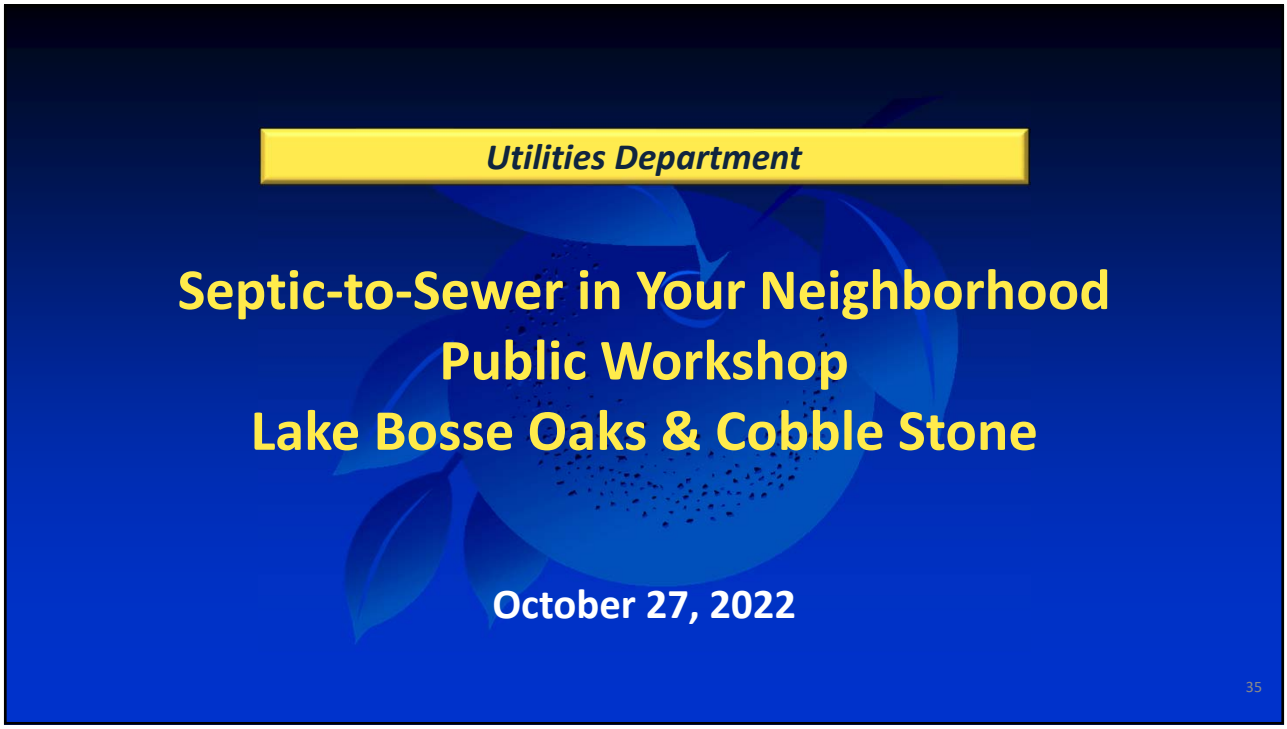
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