

Utilities Department

Work Session

Septic Tank Workgroup Chapter 37 Ordinance

August 27, 2024



Presentation Outline

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- Background
- Recap of May 21 Work Session
- Chapter 37 Draft Ordinance
- Next Steps
- Summary
- Board Direction



Presentation Outline

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- **Background**
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- The County identified a need to protect our water resources from excessive nutrient loading associated with conventional septic systems
- Orange County's Water Resources
 - Over 600 named lakes
 - 12 major drainage basins (9 river systems)
 - Wekiwa & Rock Springs (OFS)
 - Wekiva River (Wild & Scenic River)
 - Econlockhatchee River (OFW)
 - Headwaters of Everglades





Background

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- **Natural water quality can be impaired by nutrients**
 - Phosphorous and nitrogen
- **Excess nutrients cause overabundance of algae**
 - Reduce diversity of plants and animals, cause fish kills
- **Conventional septic systems**
 - Provide effective wastewater treatment in the right locations and at the right densities
- **Enhanced septic systems**
 - Provide higher nutrient removals than conventional systems and may be utilized in nutrient vulnerable areas





Background

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- **Septic Tank Workgroup was created to protect our water resources**
 - **Comprised of staff from multiple county departments and FDOH**
 - **Objectives**
 - **Address the appropriate use of conventional septic systems in the county**
 - **Identify vulnerable areas in the county located outside the Wekiwa PFA**
 - **Propose policy changes to provide additional protections for areas vulnerable to excessive nitrogen associated with conventional septic systems**



- New septic systems – Enhanced nitrogen-reducing systems required on lots < 1 acre
 - Effective May 2021
- Existing septic systems – No repairs to conventional systems
 - To be enforced in the future

[illegible]



Background

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- **BCC Work Sessions**

- **Workgroup Overview (2022)**
- **4 Subgroups Preliminary Recommendations (2022)**
- **Groundwater Vulnerability Assessment (2023)**



Background

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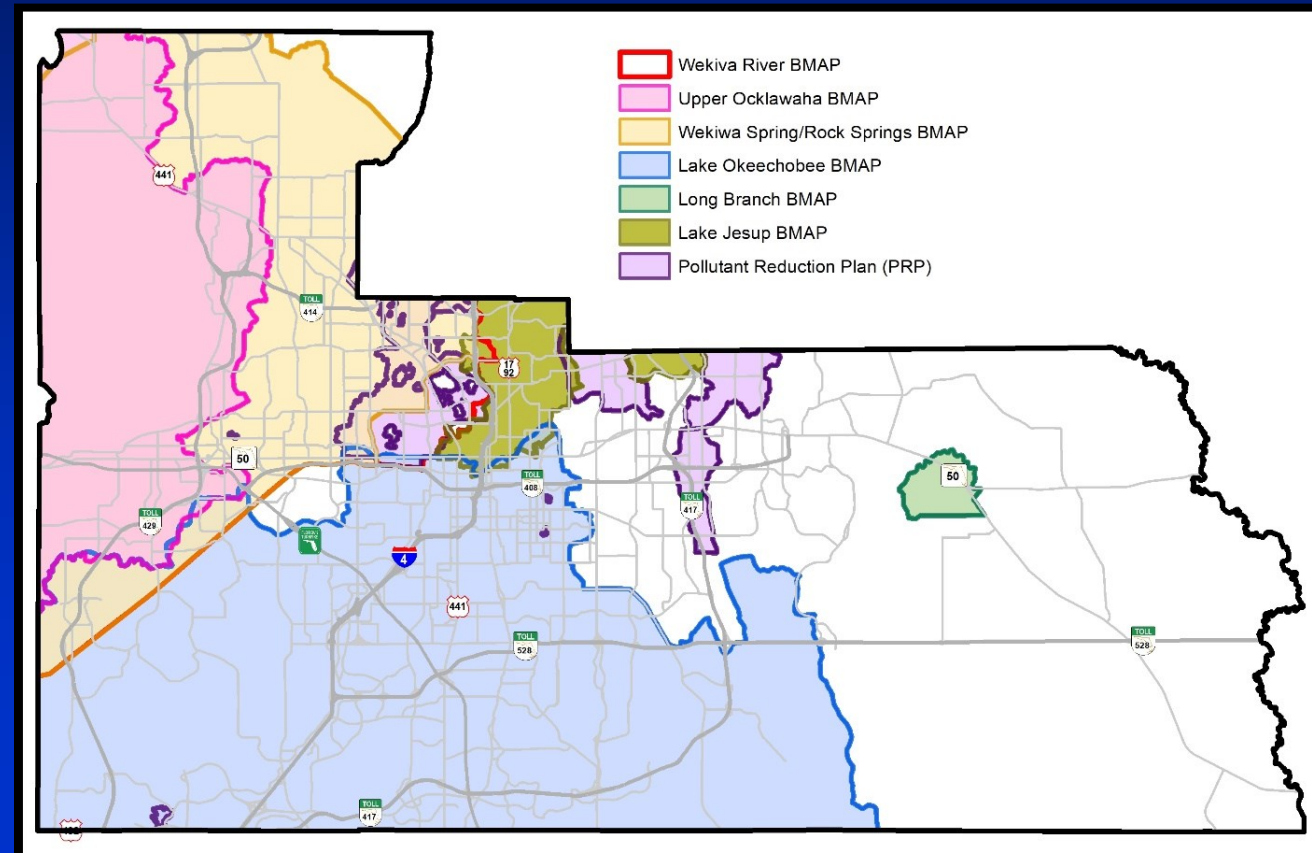
■ Recent Legislature for Septic Systems

– House Bill 1379 (2023)

BMAPs and Pollution Reduction Plans (PRPs):

- New septic systems – Enhanced nitrogen-reducing systems required on lots ≤ 1 acre
 - Effective July 2023
- Existing septic systems
 - No upgrade requirements

BMAPs/PRP

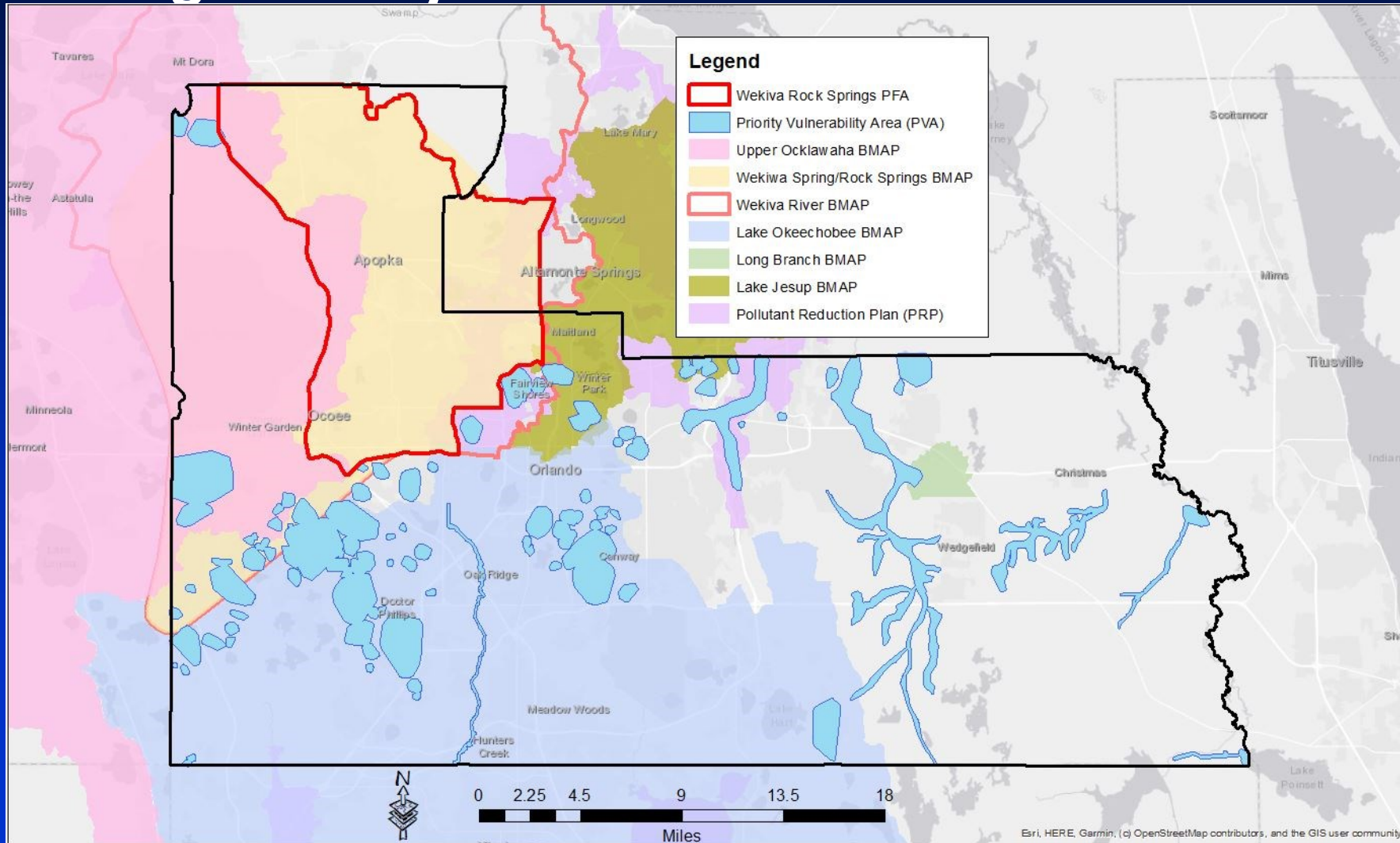




Background

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■ Orange County PVAs



Nearly 70% of the Orange County PVAs are in a BMAP or PRP, where the State requires new septic systems on lots ≤ 1 acre to be enhanced nitrogen-reducing systems



Background

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■ Stakeholder Engagement

- Spring 2023 - GVA Work Sessions/Website
- December 2023
 - Environmental Protection Commission (EPC)
- January 2024
 - Design Advisory Board (DAB)
 - Sustainability Advisory Board (SAB)
 - Greater Orlando Builders Association (GOBA)
- February 2024
 - Master Custom Builder Council (MCBC)
 - Planning and Zoning Commission (PZC)
 - Septic Tank Workgroup/Septic Upgrade Incentive Program Websites/Email Addresses
 - Septic Tank Workgroup Webinar

■ Majority of stakeholders supported staff recommendations

11th Event - Septic Tank Workgroup Webinar 2-27-2024.mp4

Building Safety Public ... Yolanda Triplett Alan Plante Laura Tatro Lindy Wolfe

Presentation Outline

- Background
 - Orange County's Water Resources
 - Septic Systems Overview
 - Workgroup Overview
 - Existing Requirements for Septic Systems
 - Groundwater Vulnerability Assessment
- Policy Recommendations and Considerations
 - No Proposed Policy Changes for Existing Septic Systems
 - Proposed Policy Changes for New Development in Vulnerable Areas Only
 - Policy Considerations for New Development
- Summary of Recommendations and Next Steps
- Workgroup Members and Resources
- Q&A Protocol and Submitted Questions



Background

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- Groundwater Vulnerability Assessment
 - ocfl.net/GroundwaterStudies
- Septic Tank Workgroup
 - ocfl.net/SepticTankWorkgroup
 - SepticTankWorkgroup@ocfl.net
- Septic Upgrade Incentive Program
 - ocfl.net/SepticPollutionPrevention
 - OCNeighborhoods@ocfl.net

The screenshot shows the Orange County Government website with a search bar and navigation tabs for Residents, Visitors, Businesses, Employees, and About Us. The page is titled "SEPTIC TANK workgroup" and includes a description of the workgroup's purpose. It lists important documents and resources, including presentations and other links. A map of Orange County is shown at the bottom, highlighting various areas of concern.

IMPORTANT DOCUMENTS AND RESOURCES

Presentations

- 2/27/24 Stakeholder Presentation
 - Video | PowerPoint
- 9/13/22 BCC
 - Video | PowerPoint
- 8/30/22 BCC
 - Video | PowerPoint
- 7/12/22 BCC
 - Video | PowerPoint
- 6/21/22 BCC
 - Video | PowerPoint
- 2/22/22 BCC
 - Video | PowerPoint

Other Links

- Wekiva Spring and Rock Springs Basin BMAP
- Resources for Septic Tank Owners

Acronyms

BMAP - Basin Management Action Plan

PFA - Priority Focus Area

PRP - Pollutant Reduction Plan

PVA - Priority Vulnerability Area

SEPTIC TANK workgroup

Septic systems can provide safe, cost-effective wastewater treatment options where centralized sewer systems are not available. With over 85,000 septic tanks in Orange County, a workgroup was created to evaluate the environmental impact and appropriate use of conventional septic systems. The Septic Tank Workgroup is a collaboration between county staff and the Florida Department of Health with subgroups focused on:

- New Development
 - Connections to Central Sewer
 - Septic Tank Standards and Permitting
- Existing Systems
 - Septic to Sewer Connections
 - Septic Tank Upgrades

Background

Reasons to Address Septic Systems

Identifying Vulnerable Areas

Map Legend:

- Wekiva Priority Focus Area (PFA)
- Proposed County Priority Vulnerability Area (PVA)
- Pollutant Reduction Plan (PRP)
- Basin Management Action Plan (BMAP)



■ BCC Work Sessions

—Workgroup Policy Recommendations (May 21, 2024)

- Staff made the following recommendations:
 - No changes for existing systems
 - No changes for new development in non-vulnerable areas
 - Proposed changes for new development in vulnerable areas to protect our water resources
- **BCC concurred with staff recommendations and directed staff to draft an Ordinance**



Presentation Outline

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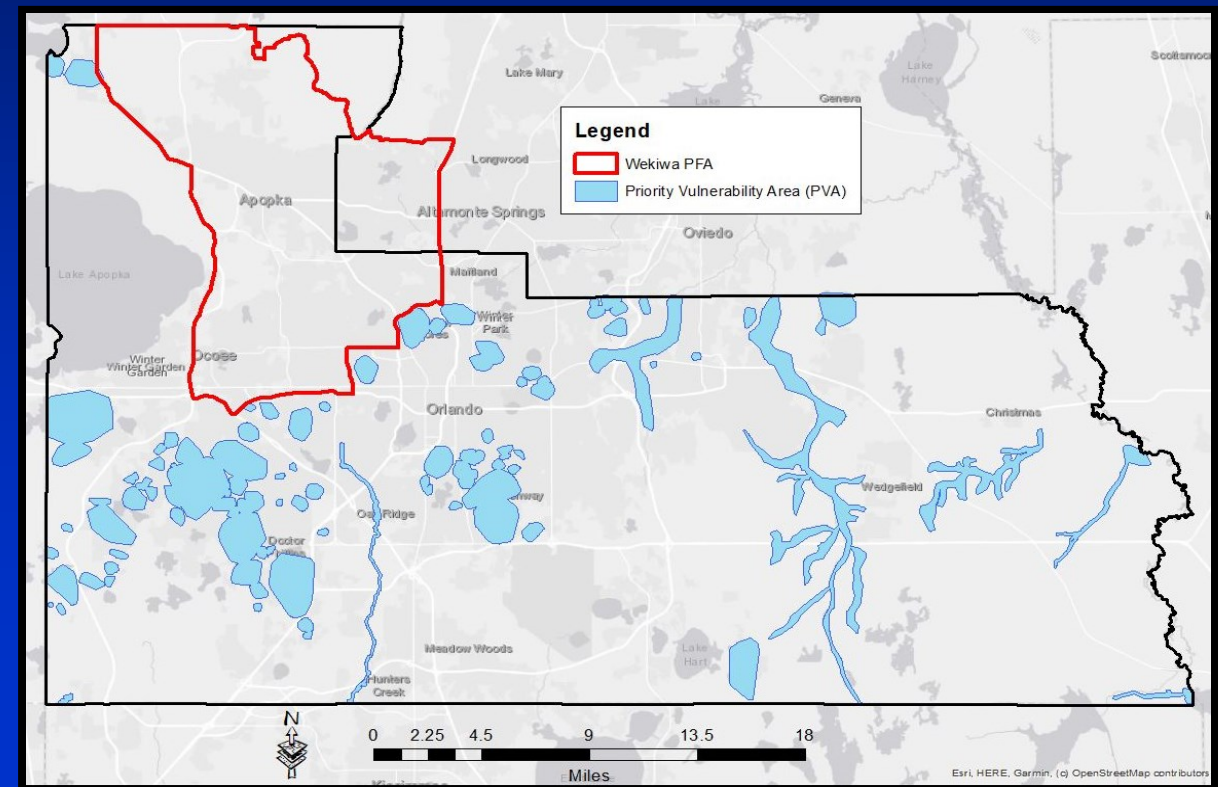
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- **Proposed Recommendation #1.a):** Sewer Connection (Flows ≤ 2 ERU)
 - E.g., single-family home and duplex, low flow commercial, etc.
 - Current requirement: Connect to sewer if fronting a gravity pipeline
 - Recommendation: Connect to sewer if fronting a gravity pipeline or a force main
 - Additional cost: \$5K – \$15K
- ### Vulnerable Areas

The map displays the Wekiwa PFA boundary in red, covering areas around Apopka, Altamonte Springs, and Orlando. Blue shaded regions indicate Priority Vulnerability Areas (PVA). A legend in the top right corner identifies these features. Labeled locations include Lake Apopka, Winter Garden, Altamonte Springs, Oviedo, and Orlando.

Vulnerable Areas



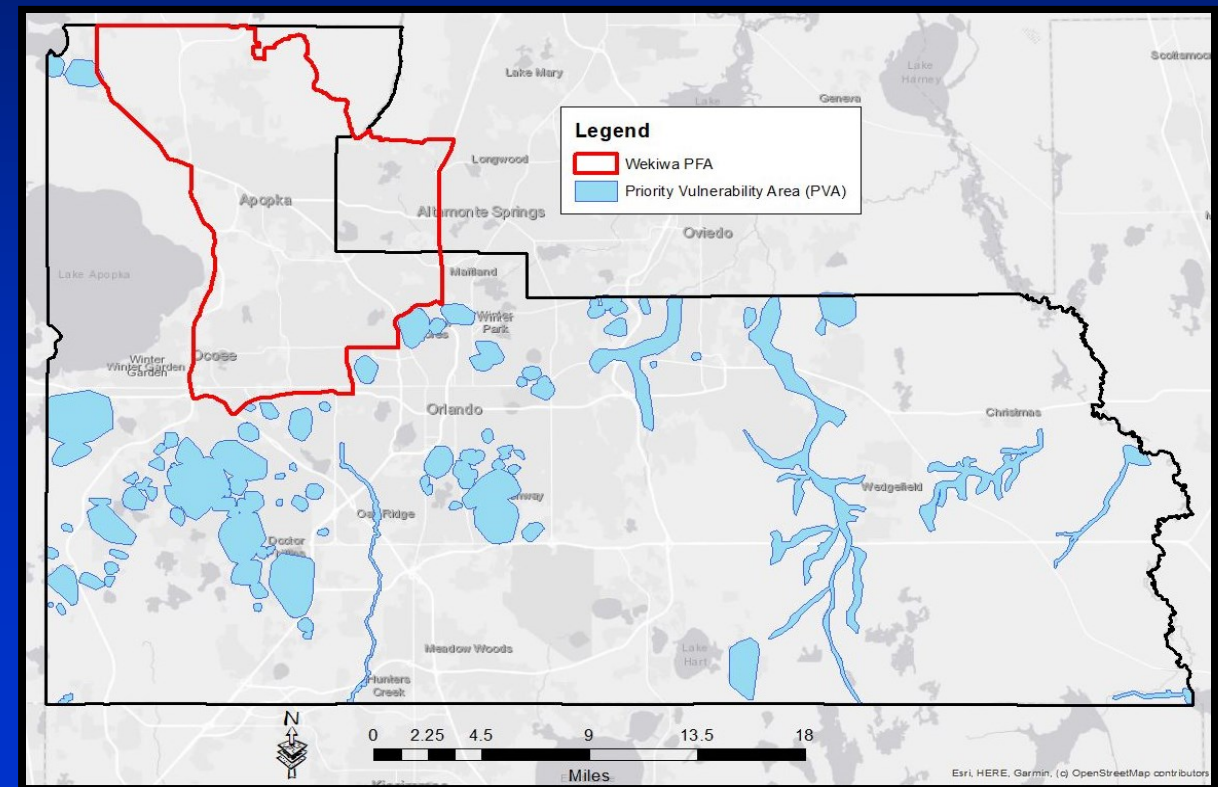


Recap of May 21 Work Session

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- **Proposed Recommendation #1.b): Sewer Connection (Flows > 2 ERU)**
 - E.g., residential triplex and quadplex, commercial, etc.
 - Current requirement: Connect to sewer if pipeline is within 100 feet
 - Recommendation: Connect to sewer if pipeline is within 600 feet
 - Additional cost: \$6K – \$54K

Vulnerable Areas





Recap of May 21 Work Session

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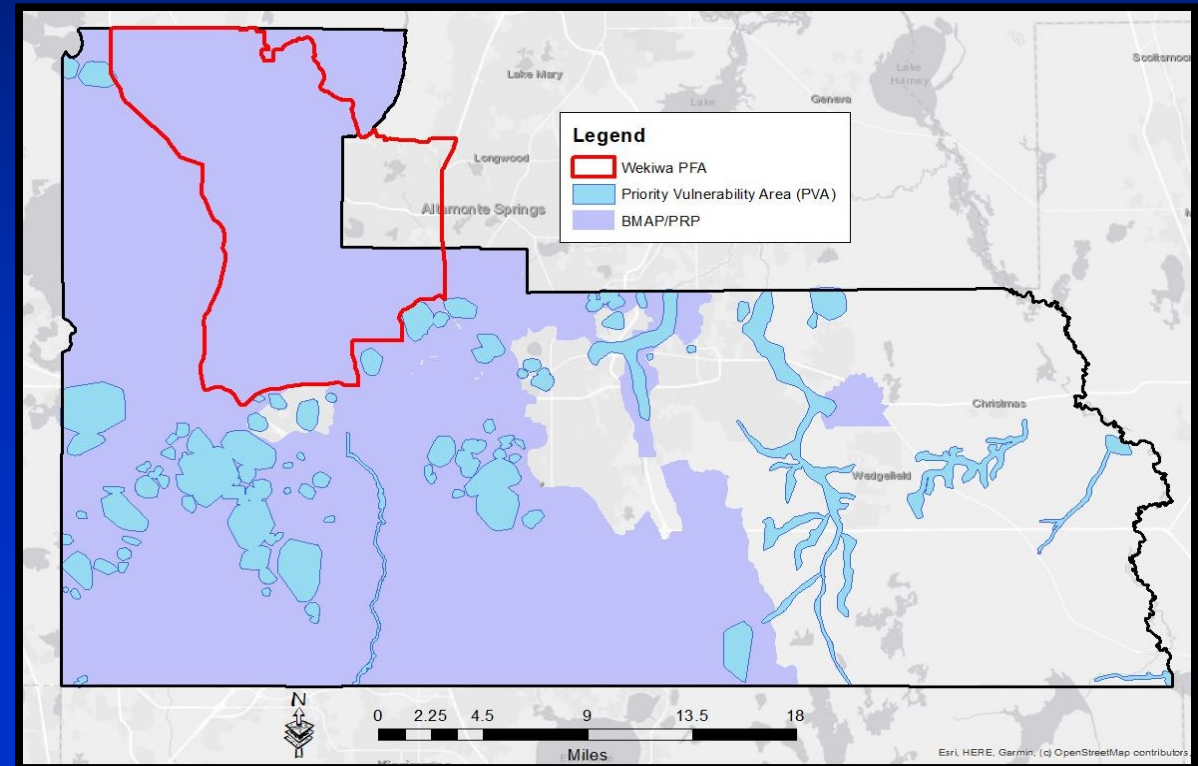
■ Proposed Recommendation #2: Enhanced Septic

– Enhanced nitrogen-reducing septic systems (65% nitrogen reduction):

- #2.a) New systems on lots ≤ 1 acre in Orange County PVAs
- #2.b) New systems less than 150 feet from any waterbody Countywide

– Additional cost: \$10K – \$15K

Vulnerable Areas and BMAPs/PRPs





Recap of May 21 Work Session

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- **Proposed Recommendation #3: Existing Septic Systems**
 - No proposed policy changes for Existing Systems
 - The State is leading this issue; County to follow their direction
 - In the Wekiwa PFA, the State is providing grants to partially offset costs
 - Septic to Sewer projects cost approximately \$75,000 per lot
 - Existing septic upgrades cost approximately \$25,000 per lot
 - Orange County PVAs may be eligible for state funding
 - Subject to funding, consider septic to sewer retrofits and existing septic upgrades



Recap of May 21 Work Session

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■ Summary of Recommendations

– New Development in Vulnerable Areas

1. Increase sewer connection requirements (Orange County PVAs and Wekiwa PFA)
 - a) Wastewater flows \leq 2 ERU – connect to fronting gravity main or force main
 - b) Wastewater flows $>$ 2 ERU – connect to sewer pipeline within 600 feet
2. Require enhanced nitrogen-reducing septic systems where sewer is not available
 - a) New systems on lots \leq 1 acre (Orange County PVAs)
 - b) New systems less than 150 ft. setback to any waterbody (Countywide)

– Existing Septic Systems

3. Continue septic to sewer and septic upgrade initiatives in the Wekiwa PFA, and expand to the Orange County PVAs, if funding is available



Presentation Outline

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Chapter 37 Draft Ordinance

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■ Ordinance consists of changes to four sections of Chapter 37, *ARTICLE XVII. INDIVIDUAL ON-SITE SEWAGE DISPOSAL*

— **Sec. 37-533. Definitions.**

- Add definition of “Available” for Vulnerable Areas
- Add definitions for “Enhanced on-site sewage disposal system (OSDS),” “Orange County Priority Vulnerability Areas (PVAs),” “Vulnerable area,” “Wekiwa Priority Focus Area (PFA)”

— **Sec. 37-540. Design and permit standards.**

- Add requirement of Enhanced OSDS for new systems on lots ≤ 1 acre in Orange County PVAs

— **Sec. 37-542. Variances to local requirements.**

- Add requirement of Enhanced OSDS for new systems less than 150 ft. setback to waterbody

— **Sec. 37-546. Orange County Priority Vulnerability Areas.**

- Add Orange County PVAs Map



Chapter 37 Draft Ordinance

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■ Sec. 37-533. Definitions.

Available shall mean within the service area of Orange County, a city or Florida Public Service Commission (F.P.S.C.) certificated central sewerage system shall be deemed available for the connection of the building plumbing if all of the applicable following requirements are met:

(4) For single-family residences or for estimated sewage flows of ~~six hundred (600) gallons or less per day~~ two equivalent residential units (ERU) or less, a sewerage system shall be considered available if:

a. Outside of vulnerable areas: A gravity sewer line exists in an easement accommodating public utilities or right-of-way that abuts the property, and if gravity flow can be maintained from the building drain to the gravity sewer line or lift station.

b. Inside of vulnerable areas: A gravity sewer line, force main, or lift station exists in an easement accommodating public utilities or right-of-way that abuts the property.

Proposed Recommendation #1.a)
Sewer Connection (Flows \leq 2 ERU)

Update “600 gpd” to “2 ERU” to match the intent of the old code when 1 ERU was 300 gpd

No changes outside of Vulnerable Areas

Add “force main, or lift station”



Chapter 37 Draft Ordinance

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■ Sec. 37-533. Definitions. *(continued)*

Available (continued)

(5) For estimated sewage flows exceeding ~~six hundred (600) gallons per day~~ two equivalent residential units (ERU), a sewerage system shall be considered available if:

a. Outside of vulnerable areas: A gravity sewer line, force main, or lift station exists in a public easement or right-of-way that abuts the property or is within one hundred (100) feet of the property as measured along and accessible via an easement accommodating public utilities or rights-of-way.

b. Inside of vulnerable areas: A gravity sewer line, force main, or lift station exists in a public easement or right-of-way that abuts the property or is within six hundred (600) feet of the property as measured along and accessible via an easement accommodating public utilities or right-of-way.

Proposed Recommendation #1.b)
Sewer Connection (Flows > 2 ERU)

Update “600 gpd” to “2 ERU”

No changes outside of Vulnerable Areas

Increase distance of pipeline extension from “100 feet” to “600 feet”



Chapter 37 Draft Ordinance

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■ Sec. 37-533. Definitions. *(continued)*

- Enhanced on-site sewage disposal system (OSDS) shall mean an onsite sewage treatment and disposal system approved by the Florida Department of Environmental Protection as capable of meeting or exceeding at least sixty-five (65) percent total nitrogen reduction combined from the onsite sewage tank or tanks and drainfield.
- Orange County Priority Vulnerability Areas (PVAs) shall mean areas of unincorporated Orange County where surface water and groundwater are generally most vulnerable to pollutant inputs and as depicted in section 37-546. Each Orange County PVA boundary is located at the extent of the modeled 5-year zone of influence around the prioritized waterbodies of interest. Parcels of land that fall wholly inside or partially inside or intersect with an Orange County PVA boundary shall be included.

Add definition of “Enhanced OSDS” to match FDEP’s

Add definition of “Orange County PVAs”



Chapter 37 Draft Ordinance

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■ Sec. 37-533. Definitions. *(continued)*

- Vulnerable area shall mean the Wekiwa Priority Focus Area (PFA) or the Orange County Priority Vulnerability Areas (PVAs).
- Wekiwa Priority Focus Area (PFA) shall mean the area within the Wekiwa and Rock Springs Basin Management Action Plan area where the Floridan Aquifer is generally most vulnerable to pollutant inputs where there is a known connectivity between groundwater pathways and the Outstanding Florida Spring.

Add definition of “Vulnerable area”

Add definition of “Wekiwa PFA”



Chapter 37 Draft Ordinance

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■ Sec. 37-540. Design and permit standards.

(p) Any new OSDS approved to be located on a lot one (1) acre or less in size within an Orange County PVA shall be an enhanced OSDS capable of meeting or exceeding at least sixty-five (65) percent total nitrogen reduction combined from the onsite sewage tank or tanks and drainfield.

Proposed Recommendation #2.a)

Enhanced Septic

(Lots \leq 1 acre in Orange County
PVAs)



Chapter 37 Draft Ordinance

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■ Sec. 37-542. Variances to local requirements.

A request for a variance from the regulations contained in this article which are more restrictive than and/or which are not directly addressed by F.A.C. ch. 10D-6 shall be made and determined by the county engineer or his designee. Any request for a variance from the requirements contained in this article as applied to a lakefront lot shall be reviewed by the development review committee (DRC), with input requested from the county environmental protection department, prior to consideration for approval. The board of county commissioners hereby designates the DRC as the entity to hear appeals of those variance requests denied by the county engineer. Both the county engineer and the DRC shall act pursuant to the standards contained in Orange County Code section 34-27. In applying section 34-27 to a variance request hereunder, terms (i) "DRC," (ii) "this chapter," and (iii) "subdivision improvements" shall be interpreted to mean (i) either "county engineer" or "DRC," as appropriate, (ii) "this OSDS ordinance," and (iii) "OSDS regulations," respectively.

Any approved variance from the setback requirement for a new OSDS to be located at least one hundred fifty (150) feet from the normal high water elevation (NHWE) of surface water bodies and canals connected to surface water bodies shall have a condition that an enhanced OSDS capable of meeting or exceeding at least sixty-five (65) percent total nitrogen reduction will be installed.

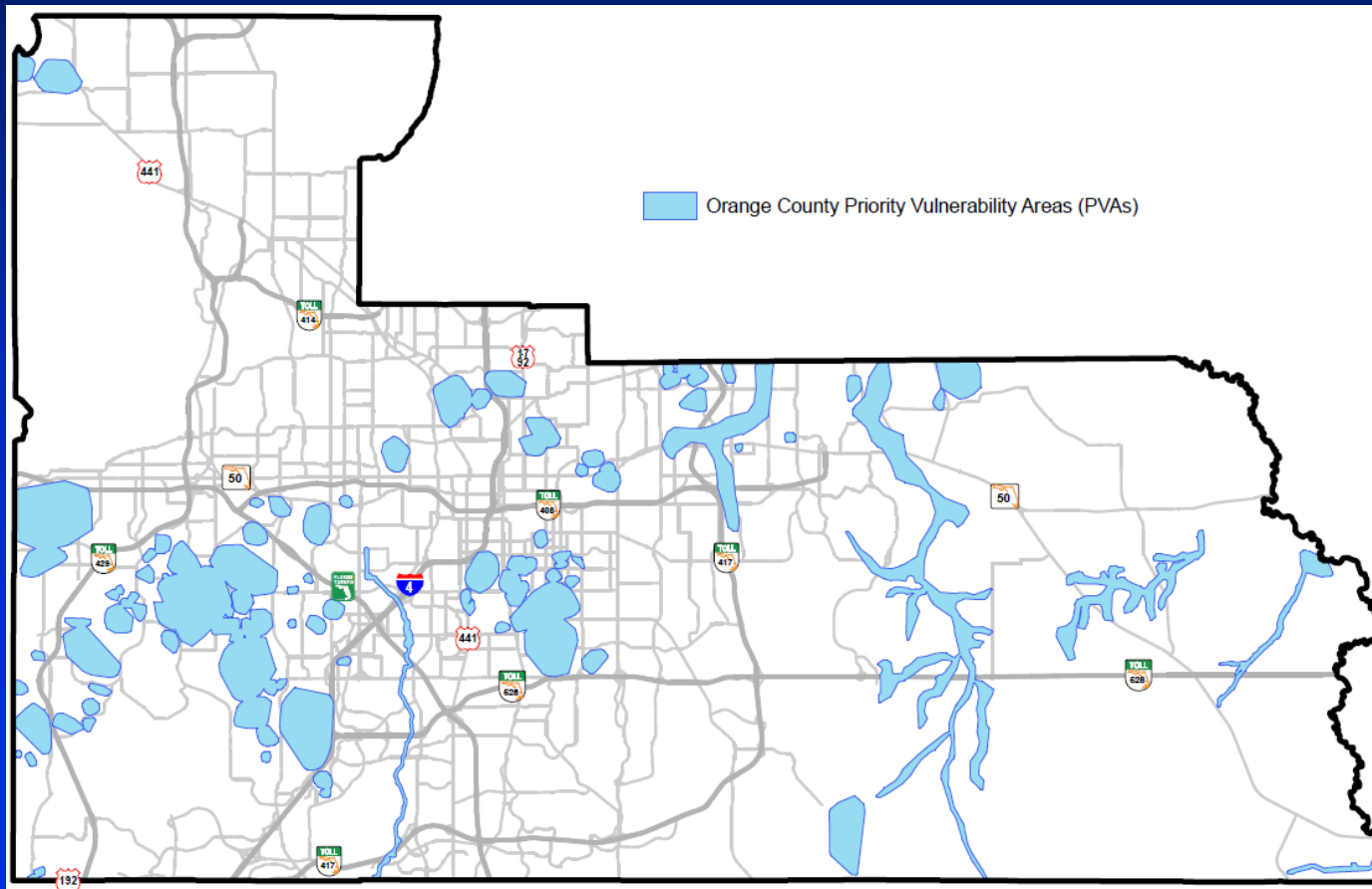
Proposed Recommendation #2.b)
Enhanced Septic
(OSDS < 150 ft. setback to any
waterbody)



Chapter 37 Draft Ordinance

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- **Sec. 37-546. Reserved-Orange County Priority Vulnerability Areas.**
 - For purposes of this article and the applicability of the regulations contained in this article, the Orange County Priority Vulnerability Areas as defined in section 37-533 shall include the area of land located in the county within boundaries depicted in the map that follows.



Add Orange County PVAs Map



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- **Policy Recommendations Work Session**
 - ✓ May 21, 2024
- **Chapter 37 Ordinance Work Sessions**
 - ★ BCC (August 27, 2024)
 - DAB and SAB (September 2024)
- **Chapter 37 Ordinance Public Hearings**
 - EPC (September 2024)
 - PZC/LPA (October 2024)
 - BCC (November 19, 2024)
 - Ordinance Effective Date - March 1, 2025



Presentation Outline

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- **The Workgroup was created to protect our water resources from excessive nutrients associated with conventional septic tanks**
- **The State identified vulnerable areas where enhanced septic is required for new development (Wekiwa PFA, BMAPs, PRPs)**
- **Orange County PVAs are also vulnerable to excessive nutrients from conventional septic tanks**
- **The Workgroup recommended enhanced septic systems and more stringent requirements to connect to sewer for new development in Orange County PVAs and the Wekiwa PFA**
- **These recommendations address our goal to protect Orange County's water resources from excessive nutrients associated with conventional septic tanks**
- **The Board directed staff to draft an Ordinance to implement these recommendations**



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Board Direction

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- **Consent and approval for Staff to finalize an Ordinance amending Chapter 37, Article XVII, Orange County Code**
 - Public Hearing before PZC/LPA (October 2024)
 - Public Hearing before BCC (November 2024)