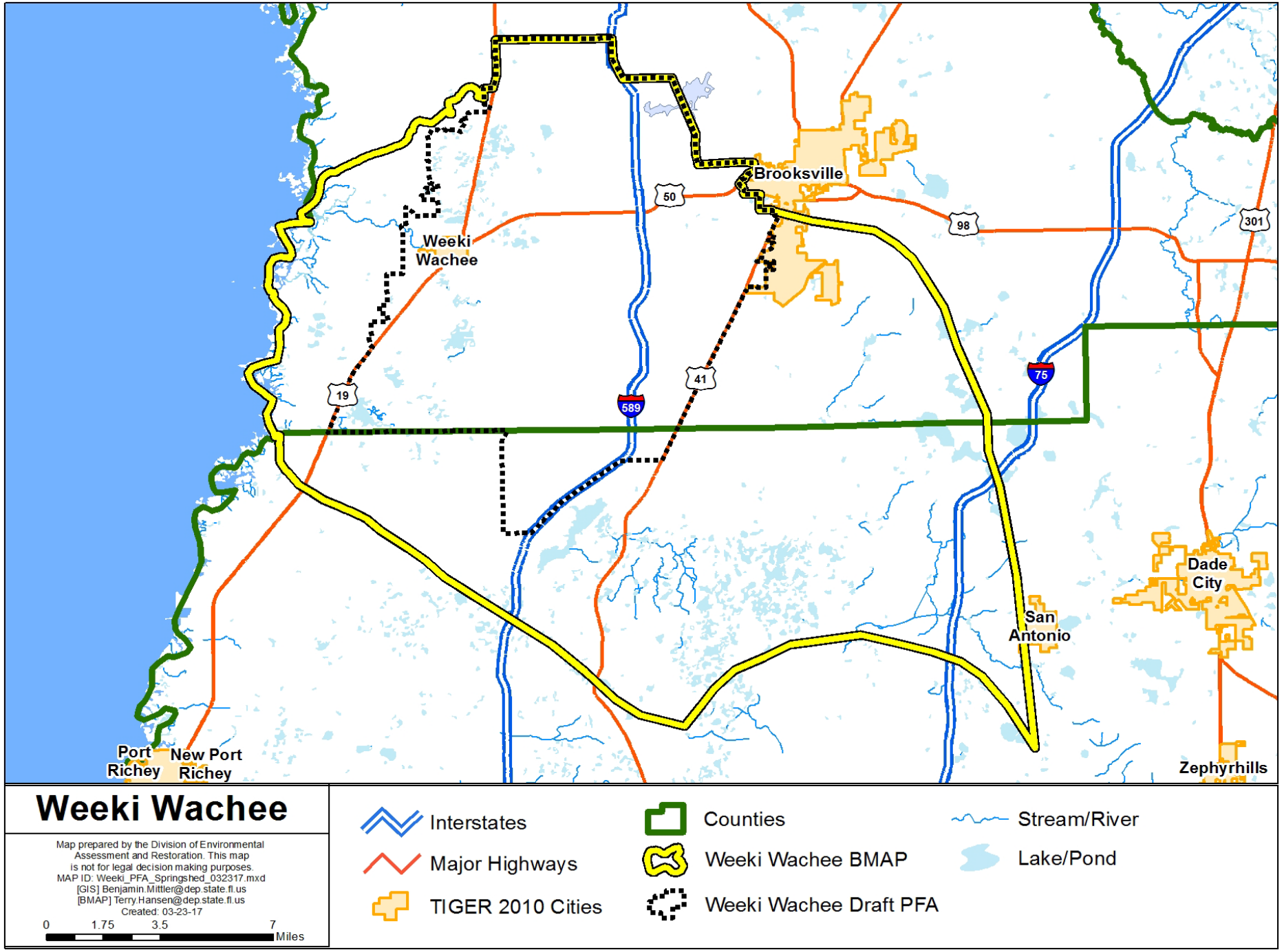
WEEKI WACHEE AND CHASSAHOWITZKA SPRINGS BMAP UPDATE

UTILITIES DEPARTMENT

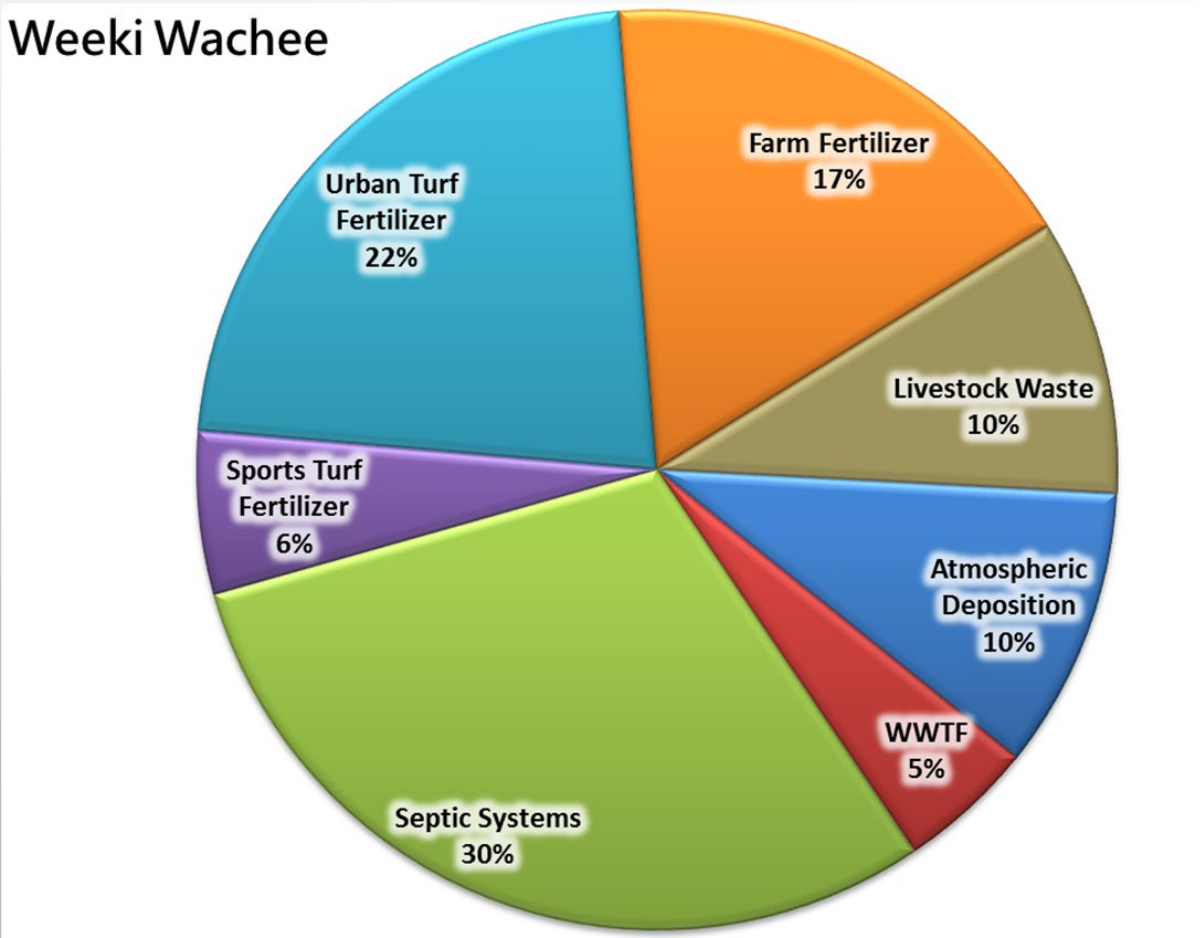
FLORIDA SPRINGS AND AQUIFER PROTECTION ACT (2016-1)

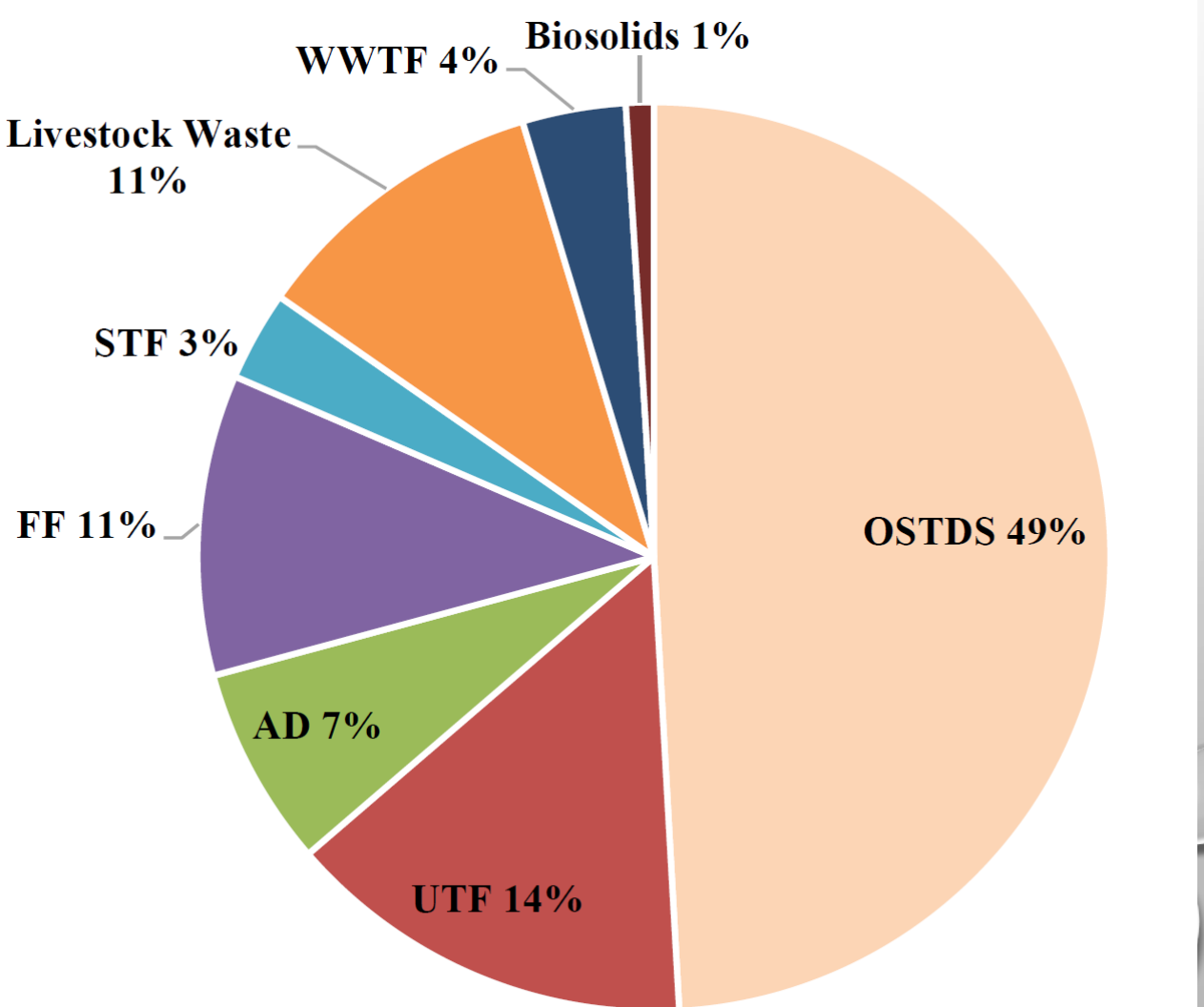
- Provides for the protection and restoration of impaired Outstanding Florida Springs (OFS)
- Requires a Basin Management Action Plan (BMAP) be established for OFS to eliminate impairments (nitrogen) within 20 years of adoption
- Require fertilizer ordinances for local governments

- 2020 Clean Waterways Act
    - OSTDS Remediation Plans and inventory
    - Wastewater Treatment Improvement Plans
- 2023 House Bill (HB) 1379
    - Include BMAP plans into comprehensive plans
    - Required a list of projects to achieve BMAP compliance
- 2024 House Bill (HB) 1557
    - Additional language facilitating the transfer of regulatory authority of OSTDS (septic systems) from the Dept of Health (DOH) to the Dept of Environmental Protection (DEP)
    - Additional Reclaimed Water Rules for Advanced Wastewater Treatment


Brooksville
Weeki Wachee
50
98
301
19
589
41
75
Dade City
San Antonio
Port Richey
New Port Richey
Zephyrhills
Weeki Wachee
Map prepared by the Division of Environmental Assessment and Restoration. This map is not for legal decision making purposes.
MAP ID: Weeki_PFA_Springshed_032317.mxd
[GIS] Benjamin.Mittler@dep.state.fl.us
[BMAP] Terry.Hansen@dep.state.fl.us
Created: 03-23-17
0 1.75 3.5 7 Miles
Interstates
Major Highways
TIGER 2010 Cities
Counties
Weeki Wachee BMAP
Weeki Wachee Draft PFA
Stream/River
Lake/Pond

WEEKI WACHEE SPRINGS BMAP 2018 VS 2025(DRAFT)





2018 NITROGEN REDUCTIONS BY SOURCE

Source	Estimated Portion of Total Load (%)	Estimated Total Nitrogen Load to Groundwater (lbs-N/yr)	Estimated Load Reduction (lbs-N/yr) [Groundwater Load – TMDL Load (x) %]
Septic systems	30 %	282,875	251,100
Urban turfgrass fertilizer	22 %	209,689	184,140
Farm fertilizer	17 %	163,935	142,290
Atmospheric deposition	10 %	93,208	83,700
Livestock waste	10 %	91,347	83,700
Sports turfgrass fertilizer	6 %	53,841	50,220
WWTF	5 %	45,105	41,850
Totals	**100 %**	**940,000**	**837,000**

2018 REDUCTION OBLIGATIONS BY ENTITY (lbs-N/yr)

Source	Hernando County	Pasco County	Brooksville	Agricultural Producers	Golf Courses	Total Nitrogen Reduction
Septic systems	220,215	29,881	1,004			**251,100**
Urban turfgrass fertilizer	165,542	17,309	1,289			**184,140**
Atmospheric deposition	*	*	*	*	*	**83,700**
Farm fertilizer				142,290		**142,290**
Sports turfgrass fertilizer	2,511				47,407	**50,220**
Livestock waste				83,770		**83,700**
WWTF	**	**	**	**	**	**41,850**
Totals	**388,268**	**47,190**	**2,293**	**225,990**	**47,709**	**837,000**

*Atmospheric deposition is an uncontrollable load, but will likely be reduced through stormwater treatment and WWTF uptake.

**WWTF owners/operators in the BMAP study area are 100 % responsible for achieving the appropriate source reductions based on their facility loads, with consideration for attenuation and locations in the high, medium, or low recharge areas.

2025 WEEKI WACHEE UPDATE

Description	Withlacoochee Nitrogen Loads (lbs/yr)	Notes Regarding Data Used
Total Load at Spring Vents	308,909	Upper 95% confidence interval — nitrate and flow data 2012 to 2022 (0.91 mg/L and 173.04 cubic feet per second [cfs]).
TMDL Load	95,265	TMDL target of 0.28 mg/L and using the spring vent flow data from 2012 to 2022.
Percent Reductions	69%	Calculated reduction needed based on the total load at the spring vent and the TMDL load.
NSILT Load	1,306,388	Total load to groundwater from the updated NSILT.
Required Reductions	**903,509**	**Percent reduction multiplied by the NSILT load.**

cfs – cubic feet per second

2025 WEEKI WACHEE UPDATE

2028 5-year milestone required reductions by entity in the Weeki Wachee Basin

Entity	2028 Milestone Assigned Reductions (30%) TN (lbs/yr)	Total Assigned Reductions TN (lbs/yr)
Pasco County	33,361	111,202
City of Brooksville	1,050	3,500
Hernando County	145,452	484,839
Agriculture	60,558	201,861
Private WWTFs*	465	1,549
Private Golf Courses*	8,462	28,207
Regional Projects	2,395	7,983
Total, All Reductions	**251,743**	**839,142**

*List of facilities and golf courses is included in the BMAP document.

2025 WEEKI WACHEE UPDATE

Table E-1. Estimated reduction credits for OSTDS enhancement or sewer

*Estimated reductions are for either enhancement or sewer per parcel classification. Reductions cannot be combined for the same parcel classification but can be combined between the different classifications. For example, the sewer credit associated with parcels one acre or less in size can be combined with the sewer credit associated with parcels one acre or greater in size.

Recharge Area	OSTDS in PFA	Credit for Enhancement (lb/yr)	Credit for Sewer (lb/yr)
High	36,871	277,882	527,976
Medium	368	1,573	2,990
Low	0	0	0
Total	**37,239**	**279,456**	**530,965**

2025 WEEKI WACHEE UPDATE

Existing OSTDS – For the BMAP remediation plan required under subsection 373.807(3), F.S. (detailed in Appendix E), within the PFA, any OSTDS on lots of all sizes that requires a permit to modify or replace an existing system pursuant to Chapter 62-6, Florida Administrative Code (F.A.C.), must connect to sewer if available, or if not available, upgrade or replace the OSTDS to meet enhanced nutrient reducing OSTDS requirements that achieve at least 65% nitrogen reduction, unless sewer connections will be available based on a BMAP-listed project. All OSTDS subject to this policy must include enhanced nitrogen treatment by 2038. Local governments may expand the geographic extent of this requirement by incorporating it into their local ordinances and local government specific remediation plans required under section 403.067, F.S.

2025 WEEKI WACHEE UPDATE

- Responsible entities must submit a sufficient list of additional projects and management strategies to DEP no later than January 14, 2026, to be compliant with the upcoming BMAP milestone or be subject to further department enforcement.

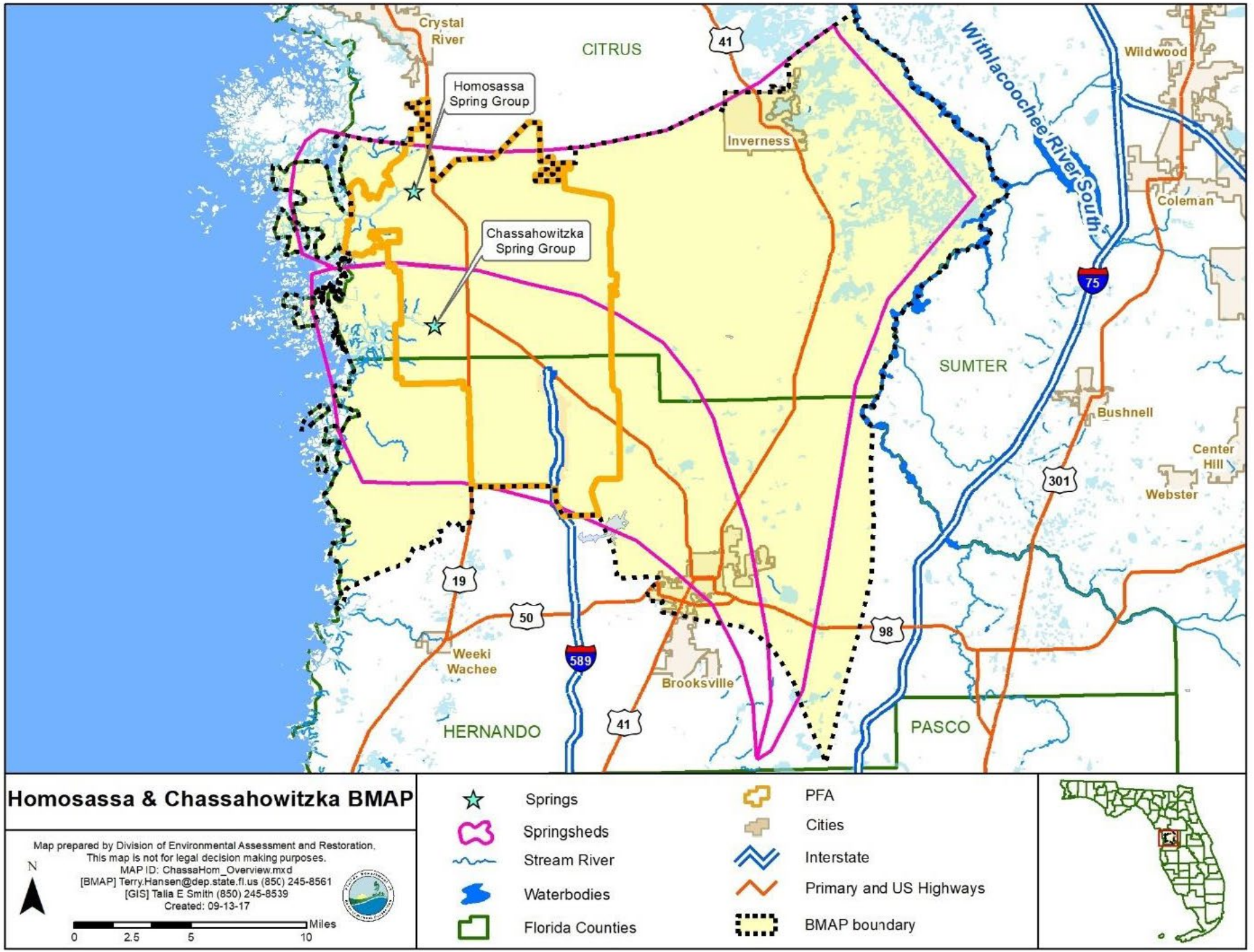
- If any lead entity is unable to submit a sufficient list of eligible management strategies to meet their next 5-year milestone reductions, specific project identification efforts are required to be submitted by January 14, 2026.

2025 WEEKI WACHEE UPDATE
URBAN TURFGRASS FERTILIZER (UTF) MANAGEMENT STRATEGIES

- UTF consists of fertilizers applied to turfgrass typically found in residential and urban areas (including residential lawns and public green spaces).
- As part of the annual reporting process, stakeholders will be required to provide a detailed and quantified description of their ordinance enforcement and environmental education activities to receive credits for these activities.
- It is recommended that Bahia grass (Paspalum notatum), which is a durable grass that can be drought and heat tolerant should be used over St. Augustine grass (Stenotaphrum secundatum) on sandy soils within spring BMAPs. Both homeowners and developers should follow the recommendations within the BMAP. If a local government has recommendations for what grasses should be used, DEP recommends that homeowners and developers follow them for the protection of water resources, if they are different than the BMAP.

BIOSOLIDS AND SEPTAGE APPLICATION PRACTICES

- DEP previously documented elevated nitrate concentrations in groundwater beneath septage application zones in contributing areas to springs. Within BMAP areas for OFS, section 373.811, F.S. prohibits the land application of Class A or Class B domestic wastewater biosolids not in accordance with a department approved NMP establishing the rate at which all biosolids, soil amendments, and sources of nutrients at the land application site can be applied to the land for crop production while minimizing the amount of pollutants and nutrients discharges to groundwater or waters of the state.


Crystal River
CITRUS
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Homosassa Spring Group
Chassahowitzka Spring Group
Inverness
Withlacoochee River South
Wildwood
Coleman
75
SUMTER
Bushnell
Center Hill
Webster
301
19
50
98
589
Weeki Wachee
Brooksville
41
HERNANDO
PASCO
Homosassa & Chassahowitzka BMAP
Springs
Springsheds
Stream River
Waterbodies
Florida Counties
PFA
Cities
Interstate
Primary and US Highways
BMAP boundary
Map prepared by Division of Environmental Assessment and Restoration.
This map is not for legal decision making purposes.
MAP ID: ChassaHom_Overview.mxd
[BMAP] Terry.Hansen@dep.state.fl.us (850) 245-8561
[GIS] Talia E Smith (850) 245-8539
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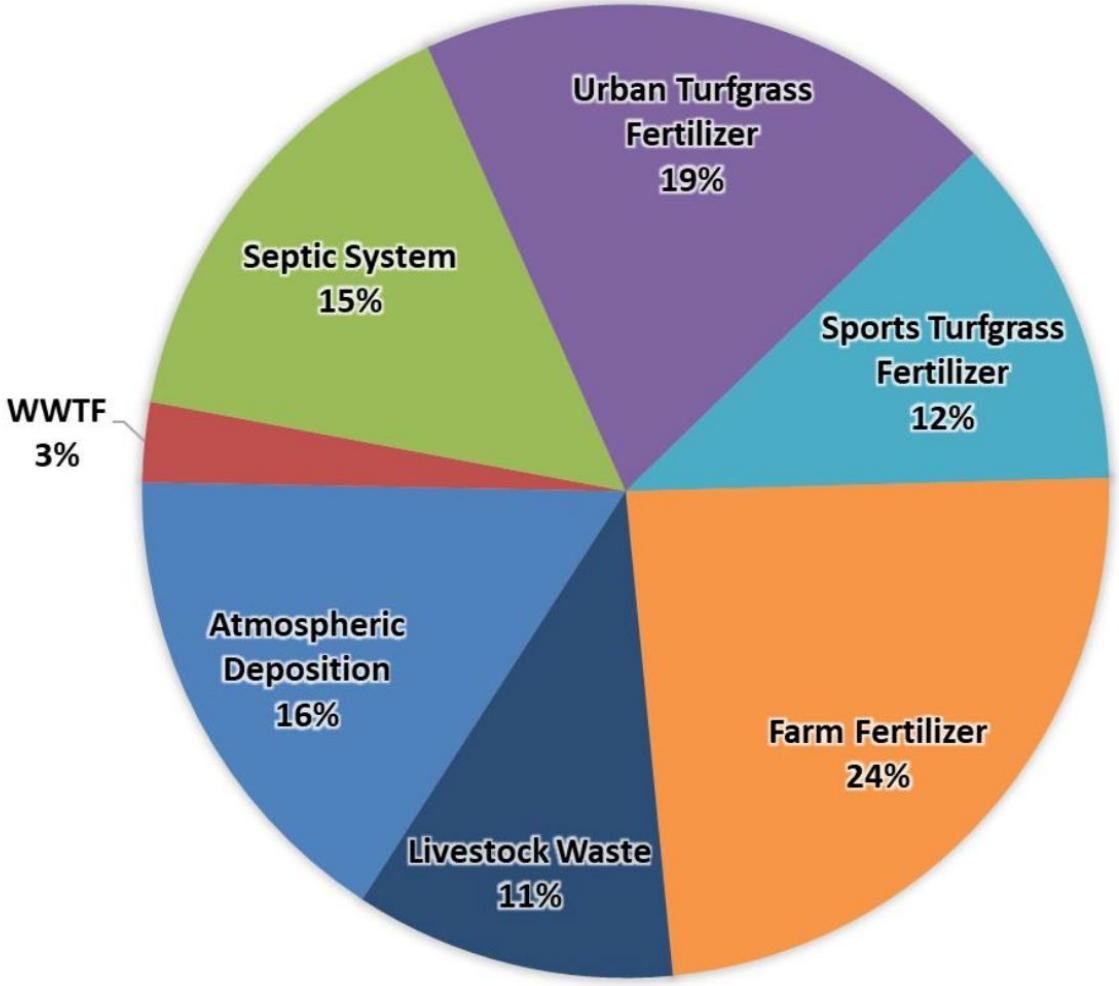
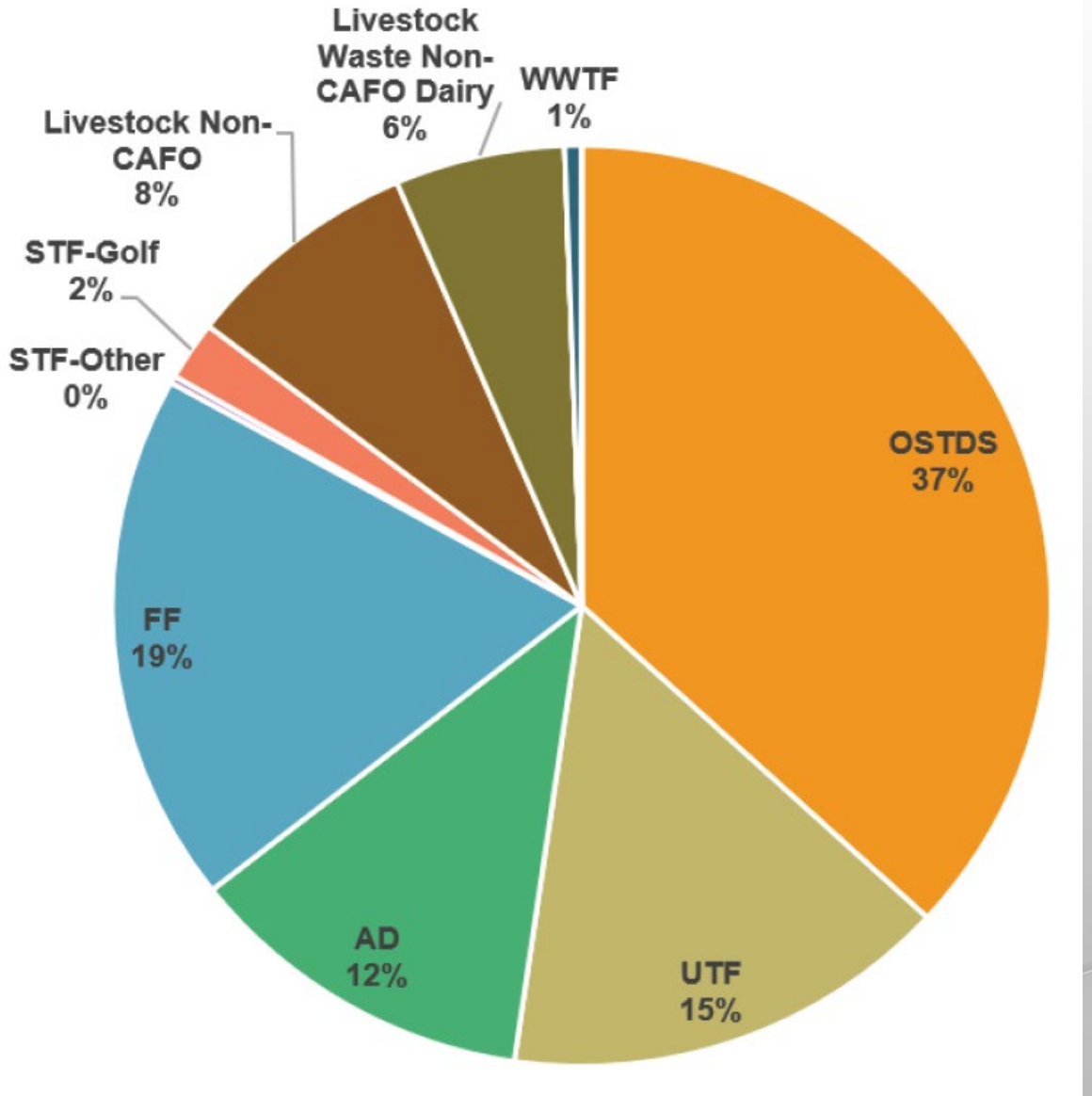
5
10
Miles

CHASSAHOWITZKA SPRINGS BMAP 2018 VS 2025(DRAFT)





2025 CHASSAHOWITZKA UPDATE

2028 5-year milestone required reductions by entity in the Chassahowitzka Spring Group

Entity	2028 Milestone Assigned Reductions (30%) TN (lbs/yr)	Total Assigned Reductions TN (lbs/yr)
Citrus County	5,303	17,678
City of Brooksville	1,873	6,244
Hernando County	18,759	62,531
Agriculture	23,949	79,829
Private WWTFs*	264	880
Private Golf Courses*	4,374	14,579
Total, All Reductions	**54,522**	**181,741**

*List of facilities and golf courses is included in the BMAP document.

ITEMS TO CONSIDER

- Comments are due by Friday
- New BMAP will be adopted by July 1, 2025 (statutory deadline)
- Compliance involves multiple County departments
- Updating policies and ordinances to achieve reductions
- Funding for projects and compliance activities

QUESTIONS?