Florida Department of Agriculture and Consumer Services Office of Agricultural Water Policy



Status of Implementation of Agricultural Nonpoint Source Best Management Practices

July 1, 2023

Report to the Governor, the President of the Senate, and the Speaker of the House Pursuant to Section 403.0675(2), F.S.

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Executive Summary

During 2022, the Florida Department of Agriculture and Consumer Services Office of Agricultural Water Policy (OAWP) continued its efforts to successfully implement the requirements of the Clean Waterways Act (2020), performing site visits to verify the proper implementation of applicable agricultural best management practices (BMP) for producers enrolled in the BMP Program. In 2022, OAWP exceeded performance expectations despite weather events that necessitated Emergency Orders deferring implementation verification (IV) site visits while producers recovered. In 2022, OAWP continued to prioritize IV site visits over enrolling new agricultural operations. During the deferral of IV site visits for the thirty-one counties listed in the Emergency Orders, staff resumed new enrollment visits when possible.

The OAWP successfully provided cost-share assistance to many enrolled agricultural producers facilitating the implementation of BMPs, and it continues to design and build essential data collection and management systems, field staff tools, and training materials to meet data quality, storage, analysis, and reporting requirements.

This report includes information on the status of BMP implementation for calendar year 2022 as well as the 24-month period between 7/1/2020 and 6/30/2022 in which IV site visits and nutrient records collection were required to be completed pursuant to the Clean Waterways Act. This report includes a summary from that entire 24-month period.

A Story Map of this report can be found at <u>Agricultural Water Policy / Divisions & Offices / Home</u> <u>- Florida Department of Agriculture & Consumer Services (fdacs.gov)</u>, This enables readers to view data and maps in an interactive environment.

Acronyms

BMAPBasin Management Action PlanBMPBest Management PracticeBMPTSBest Management Practices Tracking SystemDORDepartment of RevenueF.A.C.Florida Administrative CodeFDACSFlorida Department of Agriculture and Consumer ServicesFDEPFlorida Department of Environmental ProtectionF.S.Florida StatutesFSAIDFlorida Statewide Agricultural Irrigation Demand	ALG	Agricultural Lands Geodatabase
BMPTSBest Management Practices Tracking SystemDORDepartment of RevenueF.A.C.Florida Administrative CodeFDACSFlorida Department of Agriculture and Consumer ServicesFDEPFlorida Department of Environmental ProtectionF.S.Florida Statutes	BMAP	Basin Management Action Plan
DORDepartment of RevenueF.A.C.Florida Administrative CodeFDACSFlorida Department of Agriculture and Consumer ServicesFDEPFlorida Department of Environmental ProtectionF.S.Florida Statutes	BMP	Best Management Practice
F.A.C.Florida Administrative CodeFDACSFlorida Department of Agriculture and Consumer ServicesFDEPFlorida Department of Environmental ProtectionF.S.Florida Statutes	BMPTS	Best Management Practices Tracking System
FDACSFlorida Department of Agriculture and Consumer ServicesFDEPFlorida Department of Environmental ProtectionF.S.Florida Statutes	DOR	Department of Revenue
FDEPFlorida Department of Environmental ProtectionF.S.Florida Statutes	F.A.C.	Florida Administrative Code
F.S. Florida Statutes	FDACS	Florida Department of Agriculture and Consumer Services
	FDEP	Florida Department of Environmental Protection
FSAID Florida Statewide Agricultural Irrigation Demand	F.S.	Florida Statutes
	FSAID	Florida Statewide Agricultural Irrigation Demand
FWRA Florida Watershed Restoration Act	FWRA	Florida Watershed Restoration Act

GIS	Geographic Information System	
117	Implementation Varification	

- IV Implementation Verification
- LOPP Lake Okeechobee Protection Plan
- NOI Notice of Intent (to implement BMPs)
- OAWP Office of Agricultural Water Policy
- SFWMD South Florida Water Management District
- SOLARIS State Owned Lands and Records Information System
- SWCD Soil and Water Conservation District
- TMDL Total Maximum Daily Load

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Introduction

The Florida Department of Agriculture and Consumer Services (FDACS) Office of Agricultural Water Policy (OAWP) collaborates with Florida's agricultural landowners and producers to implement best management practices (BMPs) for nutrient reduction, irrigation management, and protection of water resources. Agricultural BMPs are an integral part of water resource protection required under the BMP Program implemented by FDACS OAWP. This report presents information required annually pursuant to Section 403.0675(2), Florida Statutes (F.S.), on the status of implementation of the FDACS BMP Program.

The Florida Watershed Restoration Act (FWRA) directs the Florida Department of Environmental Protection (FDEP) to develop water quality restoration goals for impaired waterbodies. These water quality restoration goals, known as total maximum daily loads (TMDLs), are the maximum amount of a pollutant that a waterbody can assimilate and remain suitable for its designated use.¹ The designated use is defined in FDEP rule as the present and future most beneficial use of a body of water as designated by the Environmental Regulation Commission.² Once a TMDL is adopted, FDEP may develop a basin management action plan (BMAP) that identifies enforceable strategies for restoring the impaired waterbody. ³ The agricultural industry is one of many stakeholders identified in most BMAPs. Florida law requires agricultural producers and landowners located within BMAP areas to either enroll in the FDACS BMP Program and properly implement BMPs applicable to their property and operation, or to conduct water quality monitoring activities at their own expense. ⁴ FDACS strongly encourages producers and agricultural landowners located outside of BMAP areas to also enroll in the BMP Program for the many benefits that enrollment provides. Proper implementation of FDACS agricultural BMPs is the industry's strategy to address agricultural nonpoint pollution sources. Enrollment in the BMP Program and the proper implementation of applicable BMPs provides a presumption of compliance with state water quality standards.

For the purposes of the FDACS BMP Program, the term "best management practice" means, a practice or combination of practices determined by the coordinating agencies, based on research, field-testing, and expert review, to be the most effective and practicable on-location means, including economic and technological considerations, for improving water quality in agricultural discharges. BMPs must reflect a balance between water quality improvements and agricultural productivity. ⁵ The FWRA authorizes and directs FDACS to develop and adopt, through rulemaking, BMPs that will enable the agricultural industry to achieve the reductions established in BMAPs for agricultural pollutant sources. ⁶

Newly proposed BMPs are initially verified as effective by the FDEP ⁷ based on underlying research and best professional judgement. These are then adopted by reference in the applicable agricultural commodity manual under Title 5M, Florida Administrative Code (F.A.C.) FDACS has adopted ten (10) separate BMP manuals that cover nearly all major agricultural commodities in Florida. ⁸

- 2. FLA. ADMIN. CODE r. 62-302.200(9)(2022).
- 3. See supra note 1. BMAP information is available at https://floridadep.gov/dear/water-quality-restoration/content/basin-management-action-plans-bmaps.
- 4. FLA. STAT. § 403.067(7)(b)2.g.(2022).
- 5. FLA. STAT. § 373.4595(2)(a) (2022).
- 6. FLA. STAT. § 403.067(7)(c)(1) (2022).
- 7. Id. at (7)(c)(3).

^{1.} FLA. STAT. § 403.067(7) (2022).

^{8.} One BMP manual addresses wildlife (State Imperiled Species). The BMP manuals are available at https://www.fdacs.gov/Agriculture-Industry/Water/Agricultural-Best-Management-Practices.

Enrolled producers are eligible to receive cost-share funds from FDACS to implement certain BMPs based on an evaluation of the operation and the availability of funding. Enrolled producers can also use the free services provided by the FDACS Mobile Irrigation Laboratories to evaluate irrigation system efficiency.

FDACS is required to perform BMP Implementation Verification (IV) site visits to enrolled operations at least every two years to ensure that BMPs are being properly implemented. ⁹ Between July 1, 2020, and June 30, 2022, FDACS staff completed BMP implementation verification activities for over 9,000 Notices of Intent to Implement BMPs (NOIs). This comprised 93 percent of all NOIs within BMAP areas and FDACS maintained this level of implementation verification through December 31, 2022.

Status of BMP Implementation Discussion

Program Enrollment

To initially enroll in the FDACS BMP Program, agricultural landowners and producers must meet with an FDACS representative on site to determine the appropriate practices that are applicable to their operation(s). Producers collaborate with the FDACS representative to complete a Notice of Intent to implement the BMPs (NOI) and the BMP Checklist from the applicable BMP manual. Once the NOI and Checklist are completed, signed, and submitted to OAWP, the producer is formally enrolled in the BMP Program. Enrolled agricultural landowners and producers who are properly implementing the applicable BMPs ¹⁰ are entitled to a presumption of compliance with state water quality standards.

If multiple efforts to contact agricultural landowners and producers within BMAPs about enrollment in the BMP Program are unsuccessful, or if the landowner or producer chooses not to enroll in the BMP Program or to properly implement the applicable BMPs, FDACS refers the landowner to FDEP to either implement water quality monitoring under the requirements of Chapter 62-307, F.A.C., or to be subject to other enforcement action as necessary. Water quality monitoring must demonstrate the producer's compliance with water quality criteria for the parameters addressed by the BMAP.¹¹

The process of enrolling agricultural landowners and producers in the BMP Program is staffintensive, requiring site visits to determine the water resource concerns on the operation and in the surrounding area. The site visit also includes an evaluation of production methods and activities, documentation of parcel information, site mapping, and data entry. The time needed to complete a single enrollment depends on the size and intensity of the agricultural operation, the requirements of any applicable BMP(s), the producer's technical and financial resources, and the assistance or training needed by the producer to properly implement the applicable BMPs identified for the operation. Staff consider site-specific factors when determining the applicability of BMPs including commodity type, topography, geology, location of production, soil type, field size, and type and sensitivity of the ecological resources in the surrounding areas.

9. FLA. STAT. § 403.067(7)(d)(3) (2022).

- 10. FLA. ADMIN. CODE r. 5M-1 (2023).
- 11. FLA. ADMIN. CODE r. 62-307.200 (2023).

The agricultural areas and acreages identified in this report are based on the Florida Statewide Agricultural Irrigation Demand (Version Nine) (FSAID9) Agricultural Lands Geodatabase (ALG) datasets. ¹² The presented data represents the status of BMP Program enrollment and IV site visits at the end of calendar year 2022. As of December 31, 2022, sixty-two percent (62%) of the agricultural acres including eighty-three percent (83%) of irrigated agricultural acres identified in FSAID9 were enrolled in the BMP Program **(Table 1)**.

Table 1. Status of Statewide BMP Implementation forProducers Enrolled in the BMP Program

Statewide Metrics	Value
Agricultural acres	7,575,370
Agricultural acres enrolled in the BMP Program	4,689,738
Irrigated agricultural acres	1,770,791
Irrigated agricultural acres enrolled in the BMP Program	1,471,857
Number of enrollments (NOIs)	12,563
Number of NOIs represented in IV site visits	2,043

Rates of BMP enrollment and reporting across the state vary by geographic area and are dependent upon factors such as whether a BMAP has been adopted, the date of BMAP adoption, the number and type of agricultural acres within a BMAP or geographic area, and the number of parcels associated with the agricultural acres. Enrollment efforts have previously focused on enrolling parcels that are most impactful to water quality including parcels containing many agricultural acres, irrigated acres, or more intense agricultural land uses. With limited staff, program efficacy is reduced when enrolling less impactful parcels such as smaller parcels or parcels with agricultural activity intended solely for personal use.

To assist with prioritizing enrollment efforts and monitoring progress, FDACS characterizes lands classified as agriculture in FSAID9, but not currently enrolled in the FDACS BMP Program based on owner information, address, and other details at a more granular scale using parcel level data and aerial review. This "unenrolled agricultural lands" characterization provides an indication of which areas are more likely (or unlikely) to have enrollable agricultural activities occurring on them. It also provides insight on where best to focus staff resources and efforts by identifying the number of parcels and the associated agricultural acres deemed to be enrollable. The analysis results displayed statewide and by BMAP can be found in Appendix I. More information about the characterization can be found in Appendix III.

Agricultural acres and NOIs enrolled in each adopted BMAP area are summarized in **Table 2**. Based on the results of the characterization of unenrolled lands, FDACS also estimates the "adjusted" agricultural acres within each BMAP by subtracting the acres characterized as unlikely to have enrollable agricultural activities from the BMAP "Agricultural Acres as of December 31, 2022" column in **Table 2**. The adjusted agricultural acres in each adopted BMAP and enrollment percentages are presented in **Table 3**.

^{12.} Information on FSAID is available at https://www.fdacs.gov/Agriculture-Industry/Water/Agricultural-Water-Supply-Planning.

Table 2. Status of BMP Enrollment Within BMAPs

Basin Management Action Plan	Year Adopted	Agricultural Acres as of 12/31/22	Percent of BMAP area that is Agricultural	Agricultural Acres Enrolled	Percent of Agricultural Acres Enrolled
Alafia River Basin	2014	9,988	21	4,182	42
Banana River Lagoon	2013	75	0	0	0
Caloosahatchee River and Estuary Basin	2012	444,226	50	377,444	85
Central Indian River Lagoon*	2013	72,479	20	14,862	21
Chassahowitzka-Homosassa Springs	2019	39,026	12	14,619	37
DeLeon Spring	2019	11,384	17	1,993	18
Everglades West Coast Basin	2012	9,551	17	5,304	56
Gemini Springs	2019	904	3	365	40
Hillsborough River Basin	2009	16,719	33	10,610	63
Jackson Blue Spring and Merritt's Mill Pond	2016	41,372	45	26,734	65
Kings Bay and Crystal River Springs Group	2019	13,427	7	3,710	28
Lake Harney, Lake Monroe, Middle St. Johns River, Smith Canal	2012	28,723	12	12,398	43
Lake Jesup Basin	2010	7,790	8	2,228	29
Lake Okeechobee Basin	2014	1,827,425	47	1,550,683	85
Long Branch	2008	524	14	229	44
Lower St. Johns River Basin Mainstem	2008	148,789	8	70,284	47
Lower St. Johns River Basin Tributaries I and II	2009	1,034	2	654	63
Manatee River Basin	2014	930	6	297	32
Middle and Lower Suwannee River Basin	2018	386,056	29	220,048	57
North Indian River Lagoon	2013	6,685	3	593	9
Orange Creek Basin	2008	68,515	18	26,514	39
Rainbow River and Springs	2015	179,905	41	86,608	48
Santa Fe River Basin	2012	245,629	23	109,686	45
Silver River and Springs	2015	155,928	25	37,726	24
St. Lucie River and Estuary Basin	2013	288,739	53	234,812	81
Upper Ocklawaha River Basin	2007	99,104	18	20,150	20
Upper Wakulla River and Wakulla Spring	2015	61,695	7	15,172	25
Volusia Blue Spring		2,339	3	238	10
Wacissa River and Wacissa Spring Group	2019	62,515	19	27,379	44
Weeki Wachee Spring and River	2019	47,664	22	25,055	53
Wekiva River, Rock Springs Run and Little Wekiva Canal	2015	48,343	12	10,025	21
Wekiwa Spring and Rock Springs	2018	16,674	9	4,607	28

*FDEP changed this BMAP area boundary in 2021. Consequently, values going forward are not comparable to prior years.

Table 3. Analysis and Characterization of Unenrolled Lands Within BMAPs

Basin Management Action Plan	Remaining Enrollable Agricultural Acres	Adjusted Agricultural Acres within BMAP ¹³	Adjusted % of the BMAP that is Agricultural	Adjusted % of Agricultural Acres Enrolled	Increase in enrollment % after non- agricultural acres removed
Alafia River Basin	3,087	7,273	15	57	16
Banana River Lagoon	44	44	<1	0	0
Caloosahatchee River and Estuary Basin	33,964	427,376	48	88	3
Central Indian River Lagoon ¹⁴	42,893	61,700	17	24	4
Chassahowitzka-Homosassa Springs	14,021	30,252	9	48	11
DeLeon Spring	6,110	8,508	13	23	6
Everglades West Coast Basin	1,665	7,212	13	74	18
Gemini Springs	189	554	2	66	25
Hillsborough River Basin	4,089	14,714	29	72	9
Jackson Blue Spring and Merritt's Mill Pond	9,292	36,052	39	74	10
Kings Bay and Crystal River Springs Group	5,844	10,419	6	36	8
Lake Harney, Lake Monroe, Middle St. Johns River, Smith Canal	10,786	23,398	10	53	10
Lake Jesup Basin	828	5,389	6	41	13
Lake Okeechobee Basin	119,563	1,754,758	45	88	4
Long Branch	161	392	11	58	15
Lower St. Johns River Basin Mainstem	40,589	112,597	6	62	15
Lower St. Johns River Basin Tributaries I and II	113	765	1	85	22
Manatee River Basin	578	871	5	34	2
Middle and Lower Suwannee River Basin	109,927	330,914	25	66	9
North Indian River Lagoon	3,179	3,777	2	16	7
Orange Creek Basin	25,973	55,127	14	48	9
Rainbow River and Springs	73,546	161,130	37	54	6
Santa Fe River Basin	88,771	202,562	19	54	9
Silver River and Springs	80,523	121,897	19	31	7
St. Lucie River and Estuary Basin	30,672	273,733	51	86	4
Upper Ocklawaha River Basin	40,759	65,385	12	31	10

13. Appendix III explains how the acreages were adjusted, using Department of Revenue parcel data, to discount non-agricultural lands captured by the FSAID ALG.

14. FDEP changed this BMAP boundary in 2021. Consequently, values generated since 2021 are not comparable to values from years prior to 2021.

Table 3. Continued

Basin Management Action Plan	Remaining Enrollable Agricultural Acres	Adjusted Agricultural Acres within BMAP ¹³	Adjusted % of the BMAP that is Agricultural	Adjusted % of Agricultural Acres Enrolled	Increase in enrollment % after non- agricultural acres removed
Upper Wakulla River and Wakulla Spring	23,338	39,397	5	39	14
Volusia Blue Spring	1,158	1,413	2	17	7
Wacissa River and Wacissa Spring Group	22,326	49,787	15	55	11
Weeki Wachee Spring and River	16,772	42,140	20	59	7
Wekiva River, Rock Springs Run and Little Wekiva Canal	18,178	32,002	8	31	11
Wekiwa Spring and Rock Springs	4,279	10,005	5	46	18

Implementation Verification Site Visits

Florida law requires FDACS to conduct an IV site visit at least every two years to ensure that agricultural landowners and producers are properly implementing the applicable BMPs identified in their NOIs. ¹⁵ An IV site visit includes: the review of nutrient records that producers must maintain to demonstrate compliance with the BMP Program; verification that all applicable BMPs are being properly implemented; verification that cost-share practices are being properly implemented; and identification of other potential cost-share practices or projects that may be available. During the IV site visit, FDACS representatives also identify opportunities for achieving greater nutrient, irrigation, or water resource management efficiencies, and further opportunities for water conservation.

The requirements of the Clean Waterways Act and the directives of the Northern Everglades BMAPs impact some of the metrics in this report. NOIs within BMAP areas need IV site visits every two years from the date they are:

- i) Enrolled in the BMP Program
- ii) Receive an IV site visit or implementation assistance follow-up visit (see next section)
- iii) or from the date of 7/1/2020 (whichever date is most recent).

The IV site visits conducted in 2022 and the number of IV site visits conducted since July 1, 2020, are summarized by BMAP in **Table 4**. In 2022, over 2,000 IV site visits were performed statewide out of 12,563 NOIs representing sixteen percent (16%) of all agricultural acres enrolled in the BMP Program.

There are 179 Works of the District permits issued by the South Florida Water Management District (SFWMD) located within the Lake Okeechobee watershed's Everglades Agricultural Area and C-139 Basin that implement BMPs regulated under Chapter 40E-63, F.A.C. Agricultural producers are deemed in compliance with the FDACS BMP Program if they are in compliance with their SFWMD permits. As SFWMD conducts its own site visits and collects records to ensure compliance, FDACS did not conduct IV visits on these parcels. Similarly, FDACS does not conduct IV site visits on those portions of production parcels regulated under another agency's permitting framework, such as permitted dairy operations or the nutrient application activities permitted under an FDEP biosolids nutrient management plan.

The statutory requirement to retain certain records pertaining to the application of nitrogen and phosphorus fertilizer during IV site visits began on July 1, 2020. ¹⁶ The OAWP amended Chapter 5M-1, F.A.C., and adopted by reference a Nutrient Application Record Form to simplify the record keeping requirements across all BMP manuals. While the Nutrient Application Record Form provides a uniform spreadsheet on which to enter data and manage records, OAWP staff continue to work with their counterparts at FDEP on a Memorandum of Agreement to memorialize the nutrient data collection process in order to collect and share meaningful information between the agencies. Currently, data are aggregated by BMAP or sub-basin and submitted to FDEP upon request. Preliminary results indicate success in establishing a baseline of annual nutrient application on enrolled operations, and within specific basins or sub-basins. For operations where improved BMP implementation is needed, OAWP collaborates with producers on Implementation Assistance to increase nutrient management efficiency and reduce the risk of nutrient loss to water resources.

Hurricane Ian made landfall in South Florida on September 28, 2022, as a Category 4 hurricane. As it passed across the peninsula, the hurricane impacted an estimated 4.78 million acres of agricultural lands. As producers worked to salvage their damaged crops and gather scattered livestock, another hurricane hit. Hurricane Nicole made landfall on November 9, 2022, bringing up to eight inches of rainfall to areas still saturated and trying to recover from Hurricane Ian. In response to Hurricanes Ian and Nicole and consistent with the Governor's Executive Orders (22-218, 22-219, 22-268 for Ian, 22-253 and 22-256 for Nicole), the Commissioner of Agriculture issued Emergency Order 2022-10 (executed October 31, 2022) deferring all IV site visits in the 31 impacted counties through the end of calendar year 2022. As a result, no IV visits were made in peninsular and northeast Florida during the final quarter of 2022.

Given that the site visit requirements were passed by the Florida legislature in 2020, FDACS had a deadline of June 30, 2022, to visit 8,339 NOIs. FDACS began preparations to implement the new requirements immediately, so when the Clean Waterways Act became effective on July 1, 2020, OAWP was already working to create the data collection and storage applications needed to perform and document the site visits and store the collected nutrient data. Although OAWP was authorized with only 8 of the 25 personnel positions determined to be needed, the first two quarters of operation were focused on hiring and training staff and standing up the new program structures. Notwithstanding the hindrance of COVID-19 restrictions and illnesses, by July 1, 2022, FDACS had, in the first two years since inception, completed IV actions for ninety-three percent (93%) of the NOIs in BMAPs and ninety-nine percent (99%) of the NOIs in the priority BMAPs.

16. See s. 13, Ch. 2020-150 Fla. Laws. (SB712).

Table 4. Status of IVs in BMAPs since July 1, 2020 (no adjustment for IVs referred to FDEP)

Basin Management Action Plan	Number of NOIs requiring an IV on 12/31/2022	Number of NOIs having IV site visits	Percent of NOIs requiring IV site visits that had one	Number of IV site visits performed in calendar year 2022 ¹⁷
Alafia River Basin	63	63	100	34
Banana River Lagoon	0	0	0	0
Caloosahatchee River and Estuary Basin	374	369	99	86
Central Indian River Lagoon*	71	68	96	20
Chassahowitzka-Homosassa Springs	91	90	99	35
DeLeon Spring	28	27	96	5
Everglades West Coast Basin	8	8	100	1
Gemini Springs	2	2	100	1
Hillsborough River Basin	34	33	97	14
Jackson Blue Spring and Merritt's Mill Pond	157	137	87	45
Kings Bay and Crystal River Springs Group	29	27	93	16
Lake Harney, Lake Monroe, Middle St. Johns River, Smith Canal	18	18	100	12
Lake Jesup Basin	32	32	100	26
Lake Okeechobee Basin	1,906	1,878	99	381
Long Branch	1	1	100	0
Lower St. Johns River Basin Mainstem	252	238	94	88
Lower St. Johns River Basin Tributaries I and II	3	3	100	0
Manatee River Basin	1	1	100	0
Middle and Lower Suwannee River Basin	1,164	1,026	88	297
North Indian River Lagoon	14	14	100	7
Orange Creek Basin	197	179	91	86
Rainbow River and Springs	444	400	90	81
Santa Fe River Basin	736	562	76	156
Silver River and Springs	354	318	90	142
St. Lucie River and Estuary Basin	436	422	97	78
Upper Ocklawaha River Basin	207	200	97	111
Upper Wakulla River and Wakulla Spring	91	79	87	64
Volusia Blue Spring	5	5	100	2
Wacissa River and Wacissa Spring Group	66	63	95	17
Weeki Wachee Spring and River	76	71	93	37
Wekiva River, Rock Springs Run and Little Wekiva Canal	161	158	98	58
Wekiwa Spring and Rock Springs	98	96	98	27

17. This number is affected by the Emergency Orders providing deferral of IVs in 31 counties impacted by Hurricanes Ian and Nicole in September 2022. The deferral began October 31, 2022 and continued through December 31, 2022.

Implementation Assistance

During an IV site visit, FDACS representatives may identify BMPs that are not being properly implemented. If this occurs, producers must follow the Implementation Assistance process to ensure compliance with the BMP Program requirements. ¹⁸ Under the Implementation Assistance process, the FDACS representative provides the landowner or producer with a list of corrective measures and the timeframes within which they must be completed. If the producer does not fully implement the identified corrective measures within the established timeframes, FDACS issues a letter of non-compliance identifying remedial measures to be taken by the producer and, if necessary, the landowner, to achieve proper implementation of applicable BMPs. FDACS representatives will schedule follow-up site visits to verify the completion of corrective or remedial measures within the established timeframe for completion of corrective or remedial measures shall not extend beyond the date of the next implementation verification site visit.

If a landowner or producer does not cooperate with FDACS to identify or implement corrective or remedial measures, FDACS must refer them to FDEP for enforcement action. ¹⁹ These procedures are slightly different from those used by FDACS and FDEP to refer those producers who do not enroll in the BMP Program to the water quality monitoring requirements. For example, agricultural landowners and producers enrolled in the BMP Program remain eligible for cost-share funding during the Implementation Assistance timeframe, based on the eligibility requirements of the cost-share program.

In 2022, 2,187 IV site visits were performed, of which 51 NOIs required Implementation Assistance. As of this reporting, 30 of the 51 NOIs in Implementation Assistance were resolved and the remaining had resolutions in progress. The results of the IV site visits demonstrate that most of the enrolled landowners or producers are properly implementing the applicable BMPs that were identified on their operation. It should be noted, however, that during many IV site visits, staff identified the need for increased education and assistance regarding the collection and retention of fertilizer application information. The most common types of corrective measures involved deficiencies in record keeping, soil or tissue testing, or exceeding fertilizer application rates.

BMP Cost-Share

The BMP cost-share program enhances the implementation of BMPs and other practices and projects, especially in priority areas where precision nutrient management strategies have the greatest impact on water quality. The cost-share program makes innovative agricultural production and nutrient use efficiency methods more affordable for producers so that they can meet water quality goals while remaining financially viable. Cost-share for large-scale, regional innovative technologies is provided in South Florida through Fixed Capital Outlay funding in the state budget.

^{18.} FLA. ADMIN. CODE r. 5M-1.009 (2023).

^{19.} Ibid.

During 2022, 572 cost-share projects were completed statewide. **Table 5** lists the total amount of cost-share reimbursements for projects completed in 2022 for each BMAP area and for areas outside of BMAPs. The total cost-share reimbursement for projects completed in 2022 was \$12,514,729. The sum of the "Total Costs of Projects Completed in 2022" column in **Table 5** is higher than actual cost-share reimbursement because some BMAP boundaries overlap, and some projects overlap into two or more BMAP areas. The total cost-share expended in 2022 was less than that in 2020 due to reduced expenditures of Fixed Capital Outlay funds typically provided for large regional projects. With larger projects, the timing of engineering, designing, permitting, securing of easements and other activities result in expenditures varying greatly from year to year.

Basin Management Action Plan Name	Total Costs of Projects Completed in 2022
Alafia River Basin	\$0
Banana River Lagoon	\$0
Caloosahatchee River and Estuary Basin	\$661,014
Central Indian River Lagoon	\$56,770
Chassahowitzka-Homosassa Springs	\$23,277
DeLeon Spring	\$99,352
Everglades West Coast	\$0
Gemini Springs	\$368
Hillsborough River Basin	\$0
Jackson Blue Spring and Merritt's Mill Pond Basin	\$281,071
Kings Bay and Crystal River Spring Group	\$41,250
Lakes Harney, Monroe, Middle St Johns River, Smith Canal	\$1,567
Lake Jesup Basin	\$0
Lake Okeechobee Basin	\$1,728,858
Long Branch	\$0
Lower St. Johns River Basin Main Stem	\$1,330,367
Lower St. Johns River Basin Tributaries I and II	\$0
Manatee River Basin	\$0
Middle and Lower Suwannee River Basin	\$1,533,882
North Indian River Lagoon	\$0
Orange Creek Basin	\$2,351

Table 5. Cost-Share for Projects Completed in 2022 by BMAP

Table 5. Continued

Basin Management Action Plan Name	Total Costs of Projects Completed in 2022
Rainbow River and Springs	\$228,262
Santa Fe River Basin	\$357,549
Silver River and Springs	\$163,808
St. Lucie River and Estuary Basin	\$1,531,695
Upper Ocklawaha River Basin	\$152,051
Upper Wakulla River and Wakulla Spring	\$245,010
Volusia Blue Spring	\$8,983

The total amount of cost-share reimbursement for projects completed in 2022 for each BMP category is shown in **Table 6**.

Table 6. Cost-Share for All Projects Completed Statewidein 2021 by BMP Category

Basin Management Action Plan Category	Total Costs of Projects Completed in 2022
Nutrient Management	\$5,541,666
Irrigation Management	\$4,068,256
Water Resource Protection	\$2,904,807

BMP Program Improvements

Substantial improvements to the BMP Program in 2022 included:

- Developing staff training tools, instructional videos, and web resources for staff to meet enrollment and IV site visit requirements and assist with record keeping for compliance and retention purposes. These tools are essential for ensuring data standardization, improving reporting efficiency, and assisting producers and staff with meeting the requirements of law.
- Refining criteria and Geographic Information System (GIS) methodologies to support indepth analysis of unenrolled properties identified as agriculture within BMAPs. This analysis helps improve reporting on agricultural production acreage statewide by clarifying land uses that are enrollable under the BMP Program, and identifying rural residences, smaller diversified agricultural operations, fallow lands, and other land uses that require future policy consideration.
- Augmenting field staff efforts through personnel contracts with the Soil and Water Conservation Districts (SWCD) to address the increased workload resulting from the requirements of the Clean Waterways Act. OAWP paid \$1,325,674 for twenty-four SWCD technicians during calendar year 2022.
- Prioritizing BMP Program enrollments within BMAPs and for parcels where enrollment and proper implementation of the applicable BMPs will achieve the greatest benefits to water resources. During the deferral, staff focused on increasing enrollments however it should be noted that most producers or landowners who indicated a desire to enroll as a result of the Northern Everglades BMAP mailout effort are still awaiting enrollment due to ongoing staffing issues.
- Targeting cost-share funding within BMAPs to achieve the greatest water resource benefits and improving processes to track use of cost-share selection and expenditures.
- Supporting research and demonstration projects in cooperation with the University of Florida Institute of Food and Agricultural Sciences and other state universities and Florida College System institutions with agricultural research programs to provide scientific and technical support of the FDACS BMP Program, and to demonstrate BMPs on-farm.

Next Steps

In 2023, OAWP will continue improving programmatic aspects in support of the agricultural industry while addressing the water quality goals of the state by:

- Requesting additional staff positions and program funding from the Legislature. OAWP continued to experience a high (greater than twenty percent) field staff vacancy rate in 2022, which hinders the ability to comply with statutory requirements. Significant staffing shortages led to the request for 17 additional Full Time Equivalent positions during the 2023 Legislative session.
- Updating BMP manuals using a standard template to help clarify the intent of each practice and to ensure consistent evaluation of each practice by field staff.
- Updating standard procedures for BMP program enrollment, IV site visits, cost share selection, and contracting to reflect the many programmatic changes required by recently passed legislation.
- Developing Learning Management Systems and training modules specific to OAWP staff needs, and programs for inclusion in a new AgWater Academy training catalog.
- Maintaining contractual partnerships with the SWCDs for technicians to assist OAWP in implementing its statutory obligations.
- Improving contract management processes and coordination with state agencies and SWCD partners for cost share projects to identify and prioritize eligible practices and projects to ensure the efficient and effective use of funds to achieve water resource conservation goals.
- Developing automated workflows for receiving and tracking research and demonstration projects, funding, and contracts.
- Developing a template for FDACS research data to facilitate data analyses and usability across datasets. This is a critical step in OAWP's long-term goal of standardizing FDACS BMP past, present, and future project data following the FAIR (Findable, Accessible, Interoperable, Reusable) concept of data management.
- Testing and implementing GIS mapping improvements for BMP enrollment data to enable staff to visualize updated IV site visit statuses and enrollment coverage on a daily basis.
- Continuing work with the Environmental Systems Research Institute (ESRI) on transitioning the IV process to a digital format to reduce paperwork and the amount of time needed for staff to complete an IV.
- Continuing work with cooperative agency partners including FDEP, the water management districts, and local government agencies to better characterize and identify effective solutions to protect and conserve the water resources while maintaining the viability of agricultural production throughout Florida. Most formalized coordination occurs in the Northern Everglades and Estuaries Protection Plan area of South Florida where there are regular executive meetings, program update meetings, and technical staff workgroups among the coordinating agencies (FDACS, SFWMD and FDEP).

Acknowledgements

The collection and presentation of the data in this report would not be possible without the dedication of the OAWP staff responsible for undertaking the required site visits, the data management and policy staff tasked with analyzing and compiling the data, and the project manager responsible for ensuring delivery of the final report.

Appendix I: Summary of BMP Implementation Statewide and by Basin Management Action Plan

This section provides information on the status of the BMP Program and a characterization of lands remaining to be enrolled statewide and for each BMAP area. Included are:

- A breakdown of the agricultural lands within the area of interest by enrollment status and potential applicability for BMP enrollment
- The number of enrollments and corresponding IV site visits
- A distribution, by acreage, of the unenrolled lands that are potentially enrollable
- The currently enrolled agricultural acreages by BMP Program manual

It is important to note that several BMAP boundaries overlap, which may result in some NOIs and BMP enrollment acres being counted in more than one BMAP. This means that the sum of the NOIs or NOI acreages in the various BMAPs is likely to be imprecise and may not match statewide values. The statewide summary page captures data from all enrolled parcels, both inside and outside of BMAP areas.

As BMAPs vary in size and land use, knowing what percent of the BMAP is in agricultural use is highly indicative of potential agricultural significance in the restoration strategy. OAWP used FSAID9 as the starting point for estimating agricultural acreages and executed additional land use characterization analyses to prioritize enrollment efforts.

The first table and set of charts in the one-page summaries contain:

- The agricultural acreages
- The non-agricultural acreages
- The enrolled agricultural acreages based on FSAID9 and OAWP BMP enrollment as of December 31, 2022

FSAID9 features outside the enrolled areas are captured as agricultural acres remaining to be enrolled. Oftentimes, there are lands initially identified as agriculture which, upon closer evaluation, raise questions as to whether there is agricultural activity and whether it is enrollable within the purview of OAWP. For example, some of the remaining acreages are within state-owned lands and/or water restoration project boundaries where there is a low probability they contain enrollable agricultural activity. As a result, these acres are excluded from the characterization analyses. With the state-owned lands and water restoration project projects removed, analyses are performed using property appraiser data such as parcel owner information, agricultural tax valuation for exemption purposes, other parcel land use detail and aerial imagery to determine whether the remaining lands are likely to contain relevant agricultural activity or are potentially enrollable. The potentially enrollable acres most accurately represent where the program stands in terms of achieving the 100% enrollment metric within BMAP areas. A detailed characterization methodology can be found in **Appendix III**.

The Enrollment and IV Site Visit Summary table provides:

- The total agricultural acres within the area of interest and the total enrolled acres
- The total irrigated acres and the enrolled irrigated acres
- The number of NOIs associated with the enrolled acres, and how many of those NOIs have had an implementation verification visit

To estimate the agricultural acres enrolled in the BMP Program, OAWP overlayed FSAID9 and BMP enrollment data within GIS to calculate the acres of agricultural land in an enrolled parcel and how many of those acres are irrigated. Enrollment prioritization of agricultural operations with irrigation systems is important because these operations may result in greater impacts to the water resources of the state. In terms of NOIs, the count of NOIs and enrolled acreage fluctuates when parcels are sold, when leases end or change tenancy, or when production areas downsize or production ceases, among other reasons. For more detail on the progress of implementation verification site visits, see the Implementation Verification Site Visits section.

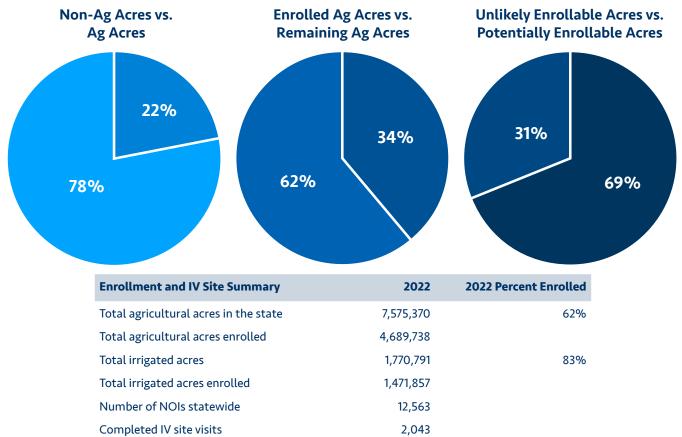
The Potentially Enrollable Parcel Distribution by Agricultural Acreage table examines the unenrolled acres found to be potentially enrollable in the land use characterization. The parcels are distributed into bins based on the agricultural acres present within each parcel. The parcel count and the total acres of agriculture encompassed by the parcels are provided for each bin. The number of parcels in each bin is a useful proxy for the level of resource dedication needed to enroll the associated agricultural acres. This provides insight when evaluating where best to focus finite resources and staffing needs to meet the enrollment goals outlined in the BMAPs. In some BMAPs, much of the potentially enrollable acreage is encompassed within many smaller parcels which may require additional resources to evaluate and/or enroll.

The Agricultural Acres Enrolled table shows the acreages enrolled in the BMP Program by commodity. It is important to note that producers often undertake the production of multiple commodities on their operations, resulting in the requirement to implement the applicable BMPs from more than one BMP manual. When this occurs, the acres enrolled under more than one BMP manual are classified as "multiple commodity" and not included in the individual commodity totals to prevent duplication.

Status of Implementation of Agricultural Best Management Practices (BMPs) Statewide

Non- Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
26,744,630	7,575,370	4,689,738	2,602,376	795,455	1,806,922

*This value includes acreages within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.



Potentially Enrollable Parcel Distribution by Agricultural Acreage

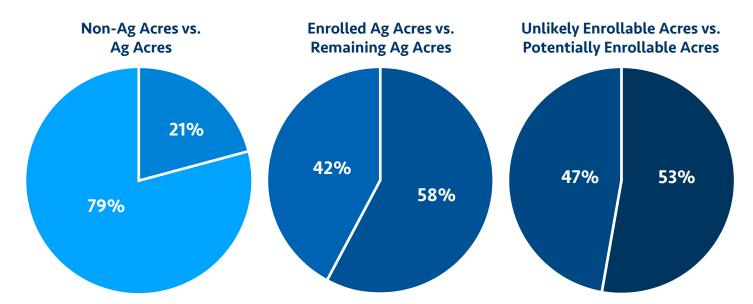
s Acres
1,662
481,658
300,490
592,178
430,934
1,806,922

BMP Manuals	Acres
Citrus	424,489
Conservation Plan	182,389
Cow/Calf	1,700,370
Dairy	12,214
Equine	19,521
Fruit & Nut	16,463
LOPP	1,915
Multiple Commodities	1,239,142
Nursery	33,421
Poultry	998
Row/Field Crops	1,023,391
Sod	32,560
Temporarily Inactive	481
Wildlife	2,024
TOTAL	4,689,738

Status of Implementation of Agricultural Best Management Practices (BMPs) Alafia River BMAP

Non- Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
37,211	9,988	4,182	5,798	2,715	3,087

*This value includes acreages within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.



Enrollment and IV Site Summary	2022	2022 Percent Enrolled
Total agricultural acres in the BMAP	9,988	42%
Total agricultural acres enrolled	4,182	
Total irrigated acres	2,759	71%
Total irrigated acres enrolled	1,968	
Number of NOIs within BMAP	75	
Completed IV site visits	34	

Potentially Enrollable Parcel Distribution by Agricultural Acreage

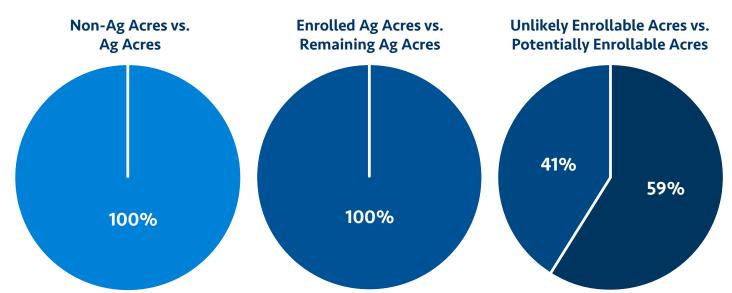
Agricultural Acres Within Parcel	Number of Parcels	Total Agricultural Acres
< 1	27	18
1 - 25	275	1,823
25 - < 50	15	494
50 - < 250	8	752
≥ 250	971	485,742
TOTAL	325	3,087

BMP Manuals	Acres
Cow/Calf	1,142
Equine	29
Fruit & Nut	77
Multiple Commodities	785
Nursery	188
Row/Field Crops	1,961
TOTAL	4,182

Status of Implementation of Agricultural Best Management Practices (BMPs) Banana River Lagoon BMAP

Non- Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
97,854	75	0	75	31	44

*This value includes acreages within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.



Enrollment and IV Site Summary	2022	2022 Percent Enrolled
Total agricultural acres in the BMAP	75	0%
Total agricultural acres enrolled	0	
Total irrigated acres	0	0%
Total irrigated acres enrolled	0	
Number of NOIs within BMAP	1	
Completed IV site visits	0	

Potentially Enrollable Parcel Distribution by Agricultural Acreage

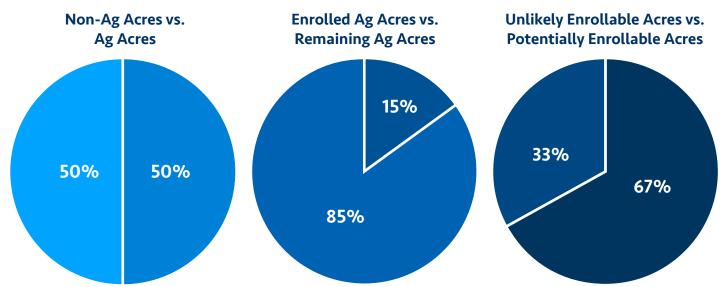
Agricultural Acres Within Parcel	Number of Parcels	Total Agricultural Acres	
<1	1	< 1	
1 - 25	2	4	
25 - < 50	1	39	
TOTAL	4	44	

BMP Manuals	Acres
Citrus	0
Cow/Calf	0
Equine	0
Fruit & Nut	0
Multiple Commodities	0
Nursery	0
Row/Field Crops	0
Sod	0
TOTAL	0

Status of Implementation of Agricultural Best Management Practices (BMPs) Caloosahatchee River and Estuary BMAP

Non- Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
449,711	444,226	377,744	66,335	16,850	33,964

*This value includes acreages within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.



Enrollment and IV Site Summary	2022	2022 Percent Enrolled
Total agricultural acres in the BMAP	444,226	85%
Total agricultural acres enrolled	377,744	
Total irrigated acres	180,719	94%
Total irrigated acres enrolled	169,208	
Number of NOIs within BMAP	521	
Completed IV site visits	86	

Potentially Enrollable Parcel Distribution by Agricultural Acreage

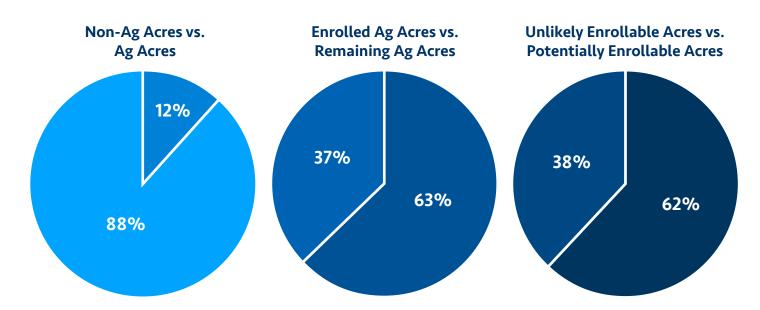
Agricultural Acres Within Parcel	Number of Parcels	Total Agricultural Acres
<1	53	31
1 - 25	1,047	9,552
25 - < 50	166	5,758
50 - < 250	101	10,170
≥ 250	20	8,452
TOTAL	1,387	33,964

BMP Manuals	Acres
Citrus	46,375
Conservation Plan	43,848
Cow/Calf	99,867
Equine	9
Fruit & Nut	480
Multiple Commodities	99,006
Nursery	977
Poultry	56
Row/Field Crops	86,186
Sod	940
TOTAL	377,744

Status of Implementation of Agricultural Best Management Practices (BMPs) Chassahowitzka-Homosassa Springs BMAP

Non- Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
286,955	39,026	14,619	24,399	8,744	14,021

*This value includes acreages within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.



Enrollment and IV Site Summary	2022	2022 Percent Enrolled
Total agricultural acres in the BMAP	39,026	37%
Total agricultural acres enrolled	14,619	
Total irrigated acres	1,512	74%
Total irrigated acres enrolled	1,120	
Number of NOIs within BMAP	102	
Completed IV site visits	35	

Potentially Enrollable Parcel Distribution by Agricultural Acreage

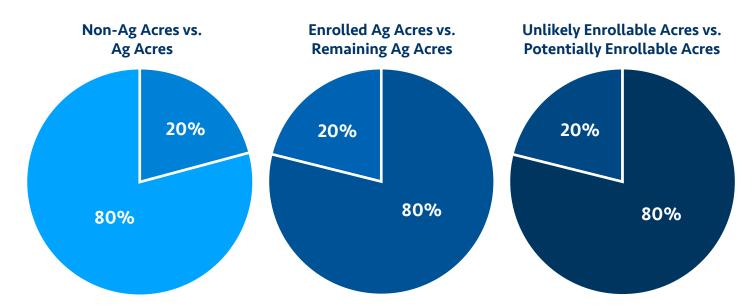
Number of Parcels	Total Agricultural Acres
21	14
632	5,885
99	3,476
43	4,380
1	267
796	14,021
	Parcels 21 632 99 43 1

BMP Manuals	Acres
Citrus	82
Cow/Calf	9,924
Dairy	260
Equine	10
Fruit & Nut	239
Multiple Commodities	2,674
Nursery	880
Row/Field Crops	550
TOTAL	14,619

Status of Implementation of Agricultural Best Management Practices (BMPs) Central Indian River Lagoon BMAP

Non- Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
282,945	72,479	14,862	57,623	10,779	42,893

*This value includes acreages within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.



Enrollment and IV Site Summary	2022	2022 Percent Enrolled
Total agricultural acres in the BMAP	72,479	21%
Total agricultural acres enrolled	14,862	
Total irrigated acres	10,392	52%
Total irrigated acres enrolled	5,453	
Number of NOIs within BMAP	97	
Completed IV site visits	20	

Potentially Enrollable Parcel Distribution by Agricultural Acreage

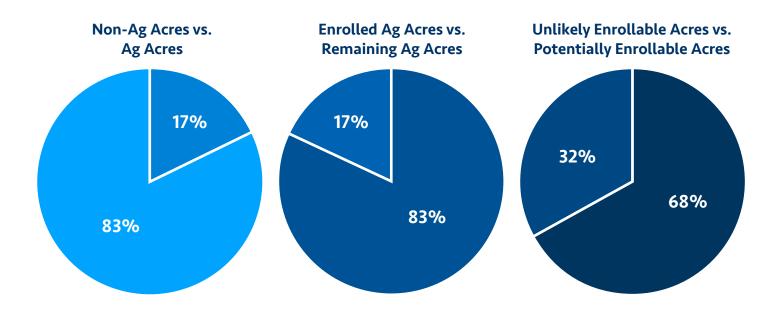
Agricultural Acres Within Parcel	Number of Parcels	Total Agricultural Acres
<1	49	32
1 - 25	1,023	9,501
25 - < 50	223	7,782
50 - < 250	154 15,3	15,324
≥ 250	21	10,254
TOTAL	1,470	42,893

BMP Manuals	Acres
Citrus	2,586
Cow/Calf	10,100
Equine	22
Multiple Commodities	1,220
Nursery	157
Row/Field Crops	777
Row/Field Crops	793
TOTAL	14,862

Status of Implementation of Agricultural Best Management Practices (BMPs) DeLeon Spring BMAP

Non- Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
54,008	11,384	1,993	9,399	2,876	6,110

*This value includes acreages within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.



Enrollment and IV Site Summary	2022	2022 Percent Enrolled
Total agricultural acres in the BMAP	11,384	18%
Total agricultural acres enrolled	1,993	
Total irrigated acres	2,202	32%
Total irrigated acres enrolled	712	
Number of NOIs within BMAP	28	
Completed IV site visits	5	

Potentially Enrollable Parcel Distribution by Agricultural Acreage

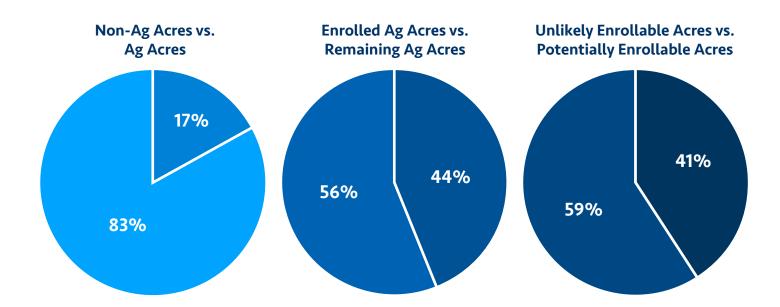
Agricultural Acres Within Parcel	Number of Parcels	Total Agricultural Acres
< 1	43	21
1 - 25	501	3,837
25 - < 50	25	867
50 - < 250	16	1,384
TOTAL	585	6,110

BMP Manuals	Acres
Citrus	155
Cow/Calf	820
Equine	151
Fruit & Nut	27
Multiple Commodities	63
Nursery	777
TOTAL	1,993

Status of Implementation of Agricultural Best Management Practices (BMPs) Everglades West Coast BMAP

Non- Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
45,918	9,551	5,304	4,242	2,339	1,655

*This value includes acreages within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.



Enrollment and IV Site Summary	2022	2022 Percent Enrolled
Total agricultural acres in the BMAP	9,551	56%
Total agricultural acres enrolled	5,304	
Total irrigated acres	3,348	97%
Total irrigated acres enrolled	3,234	
Number of NOIs within BMAP	12	
Completed IV site visits	1	

Potentially Enrollable Parcel Distribution by Agricultural Acreage

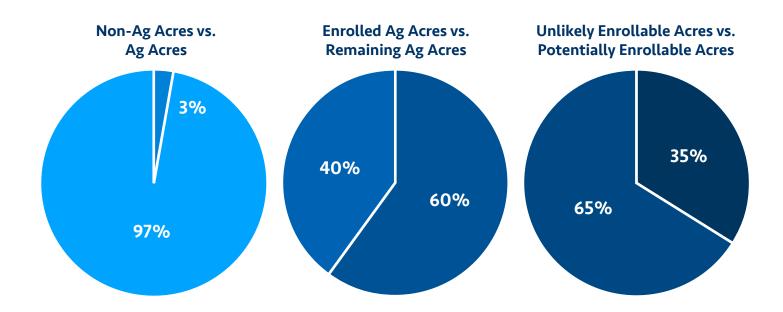
Agricultural Acres Within Parcel	Number of Parcels	Total Agricultural Acres
1 - 25	28	285
25 - < 50	2	79
50 - < 250	10	1,292
TOTAL	40	1,655

BMP Manuals	Acres
Citrus	636
Cow/Calf	444
Multiple Commodities	97
Nursery	22
Row/Field Crop	4,105
TOTAL	5,304

Status of Implementation of Agricultural Best Management Practices (BMPs) Gemini Springs BMAP

Non- Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
26.386	904	365	539	350	189

*This value includes acreages within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.



Enrollment and IV Site Summary	2022	2022 Percent Enrolled
Total agricultural acres in the BMAP	904	40%
Total agricultural acres enrolled	365	
Total irrigated acres	38	37%
Total irrigated acres enrolled	14	
Number of NOIs within BMAP	6	
Completed IV site visits	1	

Potentially Enrollable Parcel Distribution by Agricultural Acreage

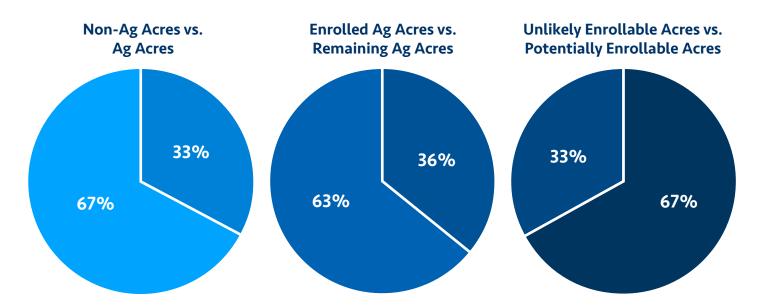
Agricultural Acres Within Parcel	Number of Parcels	Total Agricultural Acres
< 1	9	6
1 - 25	17	112
50 - < 250	1	71
TOTAL	27	189

BMP Manuals	Acres
Cow/Calf	342
Multiple Commodities	5
Nursery	18
TOTAL	365

Status of Implementation of Agricultural Best Management Practices (BMPs) Hillsborough River BMAP

Non- Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
34,024	16,719	10,610	6,100	2,005	4,089

*This value includes acreages within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.



Enrollment and IV Site Summary	2022	2022 Percent Enrolled
Total agricultural acres in the BMAP	16,719	63%
Total agricultural acres enrolled	10,610	
Total irrigated acres	762	67%
Total irrigated acres enrolled	511	
Number of NOIs within BMAP	42	
Completed IV site visits	14	

Potentially Enrollable Parcel Distribution by Agricultural Acreage

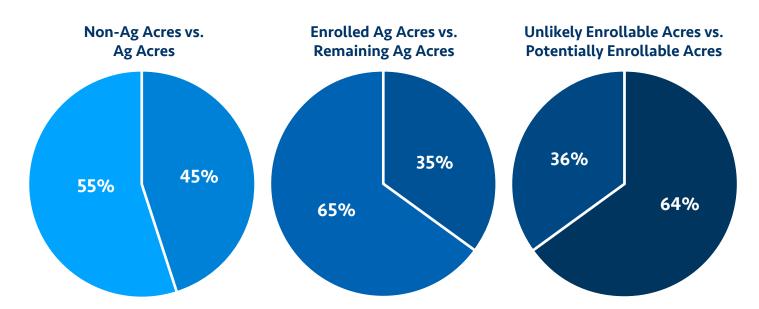
Agricultural Acres Within Parcel	Number of Parcels	Total Agricultural Acres
<1	30	21
1 - 25	244	1,925
25 - < 50	20	690
50 - < 250	10	1,174
≥ 250	1	278
TOTAL	305	4,089

BMP Manuals	Acres
Cow/Calf	9,465
Equine	5
Multiple Commodities	450
Nursery	8
Row/Field Crop	682
TOTAL	10,610

Status of Implementation of Agricultural Best Management Practices (BMPs) Jackson Blue Spring BMAP

Non- Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
51,311	41,372	26,734	14,613	5,320	9,292

*This value includes acreages within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.



Enrollment and IV Site Summary	2022	2022 Percent Enrolled
Total agricultural acres in the BMAP	41,372	65%
Total agricultural acres enrolled	26,734	
Total irrigated acres	14,759	93%
Total irrigated acres enrolled	13,793	
Number of NOIs within BMAP	123	
Completed IV site visits	45	

Potentially Enrollable Parcel Distribution by Agricultural Acreage

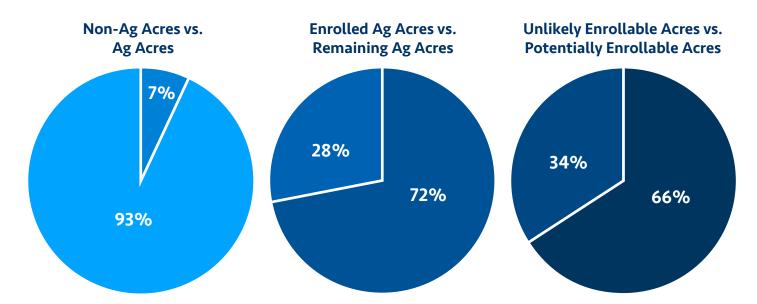
Agricultural Acres Within Parcel	Number of Parcels	Total Agricultural Acres
<1	6	4
1 - 25	418	4,078
25 - < 50	89	3,050
50 - < 250	28	2,160
TOTAL	541	9,292

BMP Manuals	Acres
Cow/Calf	1,988
Multiple Commodities	5,237
Row/Field Crop	19,509
TOTAL	26,734

Status of Implementation of Agricultural Best Management Practices (BMPs) Kings Bay Crystal River Springs BMAP

Non- Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
166,855	13,427	3,710	9,716	3,008	5,844

*This value includes acreages within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.



Enrollment and IV Site Summary	2022	2022 Percent Enrolled
Total agricultural acres in the BMAP	13,427	28%
Total agricultural acres enrolled	3,710	
Total irrigated acres	322	33%
Total irrigated acres enrolled	106	
Number of NOIs within BMAP	36	
Completed IV site visits	16	

Potentially Enrollable Parcel Distribution by Agricultural Acreage

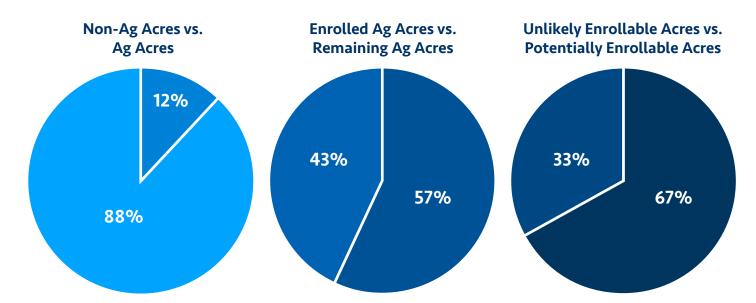
Agricultural Acres Within Parcel	Number of Parcels	Total Agricultural Acres
<1	11	5
1 - 25	180	1,534
25 - < 50	43	1,448
50 - < 250	28	2,371
≥ 250	1	486
TOTAL	263	5,844

BMP Manuals	Acres
Cow/Calf	1,972
Fruit/Nut	174
Multiple Commodities	941
Nursery	1
Row/Field Crop	622
TOTAL	3,710

Status of Implementation of Agricultural Best Management Practices (BMPs) Lake Harney, Lake Monroe, Middle St. Johns River & Smith Canal BMAP

Non- Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
213,204	28,723	12,398	16,325	5,325	10,786

*This value includes acreages within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.



Enrollment and IV Site Summary	2022	2022 Percent Enrolled
Total agricultural acres in the BMAP	28,723	43%
Total agricultural acres enrolled	12,398	
Total irrigated acres	1,022	23%
Total irrigated acres enrolled	234	
Number of NOIs within BMAP	31	
Completed IV site visits	12	

Potentially Enrollable Parcel Distribution by Agricultural Acreage

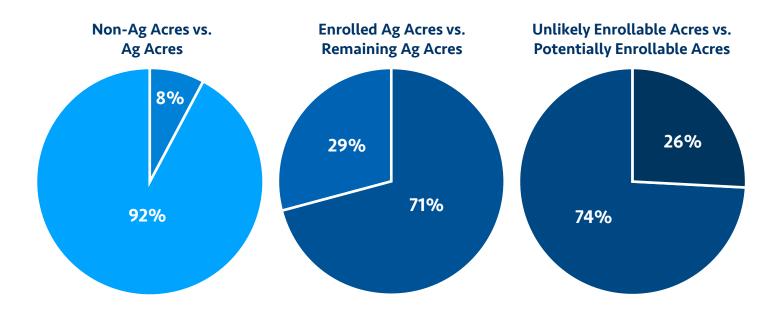
Agricultural Acres Within Parcel	Number of Parcels	Total Agricultural Acres
<1	31	18
1 - 25	515	3,672
25 - < 50	31	1,080
50 - < 250	32	3,187
≥ 250	7	2,829
TOTAL	616	10,786

BMP Manuals	Acres
Citrus	121
Cow/Calf	11,944
Equine	7
Multiple Commodities	40
Nursery	283
Row/Field Crop	3
TOTAL	12,398

Status of Implementation of Agricultural Best Management Practices (BMPs) Lake Jesup BMAP

Non- Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
87,821	7,987	5,728	2,259	1,190	907

*This value includes acreages within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.



Enrollment and IV Site Summary	2022	2022 Percent Enrolled
Total agricultural acres in the BMAP	7,790	29%
Total agricultural acres enrolled	2,228	
Total irrigated acres	1,128	77%
Total irrigated acres enrolled	873	
Number of NOIs within BMAP	38	
Completed IV site visits	26	

Potentially Enrollable Parcel Distribution by Agricultural Acreage

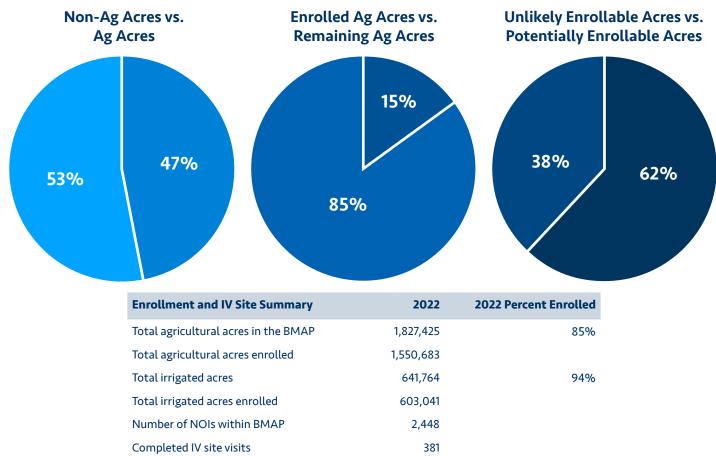
Agricultural Acres Within Parcel	Number of Parcels	Total Agricultural Acres
<1	21	12
1 - 25	118	635
25 - < 50	4	126
50 - < 250	1	55
TOTAL	144	828

BMP Manuals	Acres
Citrus	211
Cow/Calf	950
Equine	17
Multiple Commodities	152
Nursery	661
Row/Field Crop	28
Sod	209
TOTAL	2,228

Status of Implementation of Agricultural Best Management Practices (BMPs) Lake Okeechobee BMAP

Non- Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
2,070,753	1.827.425	1,550,683	276,594	72,667	119,563

*This value includes acreages within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.



Potentially Enrollable Parcel Distribution by Agricultural Acreage

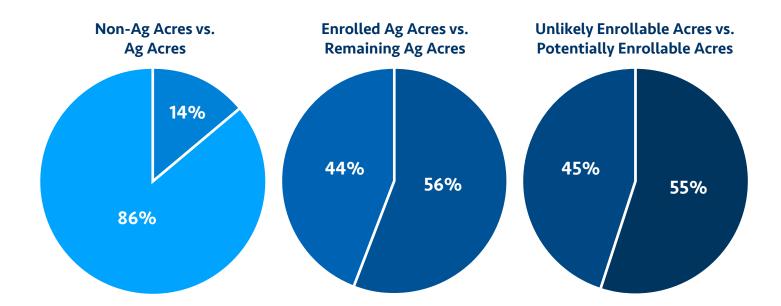
Number of Parcels	Total Agricultural Acres
259	149
3,091	28,254
378	13,318
298	33,365
99	44,478
4,125	119,563
	Parcels 259 3,091 378 298 99

BMP Manuals	Acres
Citrus	103,339
Conservation Plan	160,292
Cow/Calf	532,185
Dairy	1,382
Equine	470
Fruit/Nut	996
LOPP	1,911
Multiple Commodities	332,507
Nursery	3,660
Poultry	135
Row/Field Crop	403,273
Sod	10,532
Temporarily Inactive	1
TOTAL	1,550,683

Status of Implementation of Agricultural Best Management Practices (BMPs) Long Branch BMAP

Non- Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
3,104	524	229	297	132	161

*This value includes acreages within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.



Enrollment and IV Site Summary	2022	2022 Percent Enrolled
Total agricultural acres in the BMAP	524	44%
Total agricultural acres enrolled	2,029	
Total irrigated acres	0	0%
Total irrigated acres enrolled	0	
Number of NOIs within BMAP	1	
Completed IV site visits	0	

Potentially Enrollable Parcel Distribution by Agricultural Acreage

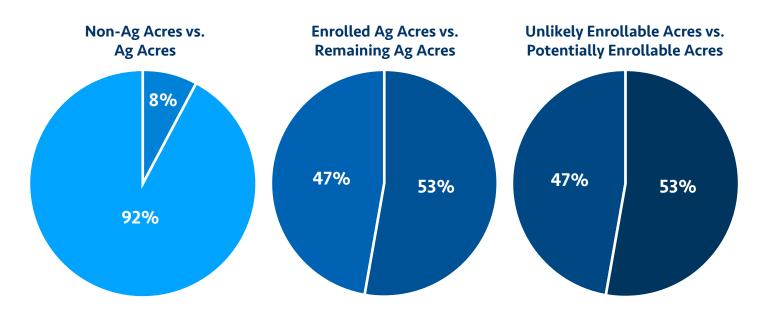
Agricultural Acres Within Parcel	Number of Parcels	Total Agricultural Acres
<1	1	1
1 - 25	10	98
25 - < 50	1	62
TOTAL	13	161

BMP Manuals	Acres
Cow/Calf	229
TOTAL	229

Status of Implementation of Agricultural Best Management Practices (BMPs) Lower St. Johns Mainstem BMAP

Non- Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
1,658,604	148,789	70,284	78,415	36,192	40,589

*This value includes acreages within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.



Enrollment and IV Site Summary	2022	2022 Percent Enrolled
Total agricultural acres in the BMAP	148,789	47%
Total agricultural acres enrolled	70,284	
Total irrigated acres	43,144	73%
Total irrigated acres enrolled	31,624	
Number of NOIs within BMAP	266	
Completed IV site visits	88	

Potentially Enrollable Parcel Distribution by Agricultural Acreage

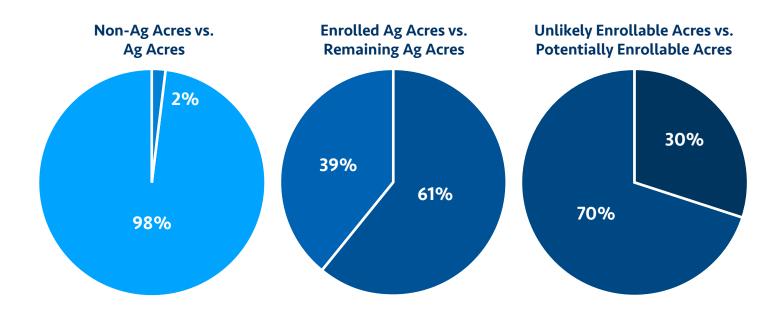
Agricultural Acres Within Parcel	Number of Parcels	Total Agricultural Acres
<1	105	57
1 - 25	1,699	14,572
25 - < 50	228	7,979
50 - < 250	150	13,730
≥ 250	7	4,251
TOTAL	2,189	40,589

BMP Manuals	Acres
Citrus	25
Cow/Calf	29,611
Equine	39
Fruit & Nut	301
Multiple Commodities	8,448
Nursery	2,628
Row/Field Crops	26,495
Sod	2,737
TOTAL	70,284

Status of Implementation of Agricultural Best Management Practices (BMPs) Lower St. Johns River Basin Tributaries I and II BMAP

Non- Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
66,246	1,034	654	382	269	113

*This value includes acreages within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.



Enrollment and IV Site Summary	2022	2022 Percent Enrolled
Total agricultural acres in the BMAP	1,034	63%
Total agricultural acres enrolled	654	
Total irrigated acres	1	0%
Total irrigated acres enrolled	0	
Number of NOIs within BMAP	3	
Completed IV site visits	0	

Potentially Enrollable Parcel Distribution by Agricultural Acreage

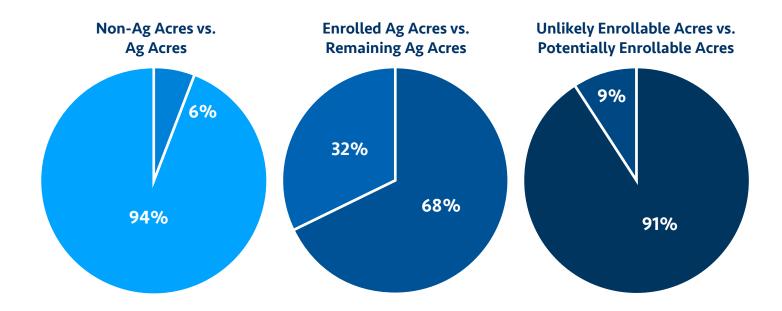
Agricultural Acres Within Parcel	Number of Parcels	Total Agricultural Acres
< 1	2	2
1 - 25	15	74
25 - < 50	1	37
TOTAL	18	113

BMP Manuals	Acres
Cow/Calf	363
Multiple Commodities	254
Row/Field Crops	37
TOTAL	654

Status of Implementation of Agricultural Best Management Practices (BMPs) Manatee River BMAP

Non- Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
15,098	930	297	637	59	578

*This value includes acreages within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.



Enrollment and IV Site Summary	2022	2022 Percent Enrolled
Total agricultural acres in the BMAP	930	32%
Total agricultural acres enrolled	297	
Total irrigated acres	450	36%
Total irrigated acres enrolled	164	
Number of NOIs within BMAP	1	
Completed IV site visits	0	

Potentially Enrollable Parcel Distribution by Agricultural Acreage

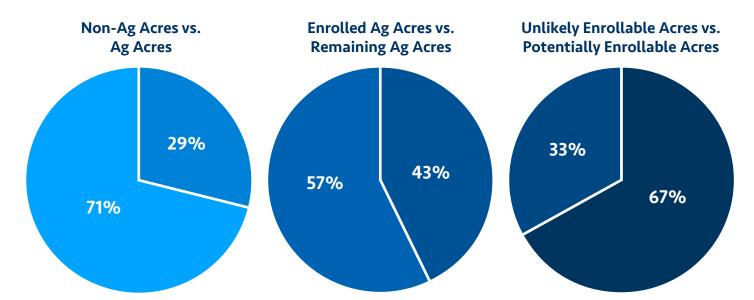
Agricultural Acres Within Parcel	Number of Parcels	Total Agricultural Acres
1 - 25	11	92
25 -< 50	1	41
50 -<250	1	92
≥ 250	1	353
TOTAL	14	578

BMP Manuals	Acres
Cow/Calf	297
TOTAL	297

Status of Implementation of Agricultural Best Management Practices (BMPs) Middle and Lower Suwannee River BMAP

Non- Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
958,793	386,056	220,048	165,877	55,142	109,927

*This value includes acreages within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.



Enrollment and IV Site Summary	2022	2022 Percent Enrolled
Total agricultural acres in the BMAP	386,056	54%
Total agricultural acres enrolled	220,048	
Total irrigated acres	113,134	89%
Total irrigated acres enrolled	100,605	
Number of NOIs within BMAP	1,283	
Completed IV site visits	297	

Potentially Enrollable Parcel Distribution by Agricultural Acreage

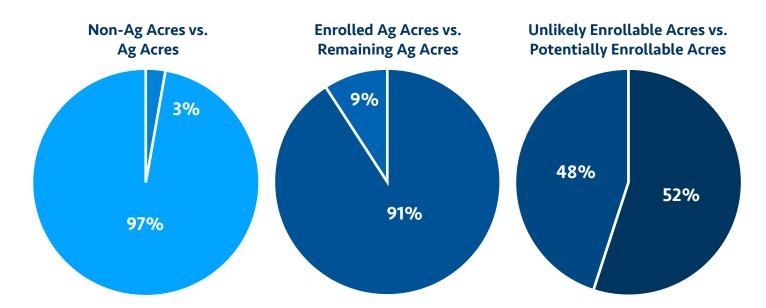
Number of Parcels	Total Agricultural Acres
58	37
3,388	36,107
827	28,908
471	40,353
14	4,522
4,758	109,927
	Parcels 58 3,388 827 471 14

BMP Manuals	Acres
Cow/Calf	32,934
Dairy	5,526
Equine	53
Fruit & Nut	521
Multiple Commodities	84,379
Nursery	438
Poultry	235
Row/Field Crops	95,753
Sod	209
TOTAL	220,048

Status of Implementation of Agricultural Best Management Practices (BMPs) North Indian River Lagoon BMAP

Non- Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
210,405	6,685	593	6,091	2,908	3,179

*This value includes acreages within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.



Enrollment and IV Site Summary	2022	2022 Percent Enrolled
Total agricultural acres in the BMAP	6,685	9%
Total agricultural acres enrolled	593	
Total irrigated acres	554	45%
Total irrigated acres enrolled	250	
Number of NOIs within BMAP	17	
Completed IV site visits	7	

Potentially Enrollable Parcel Distribution by Agricultural Acreage

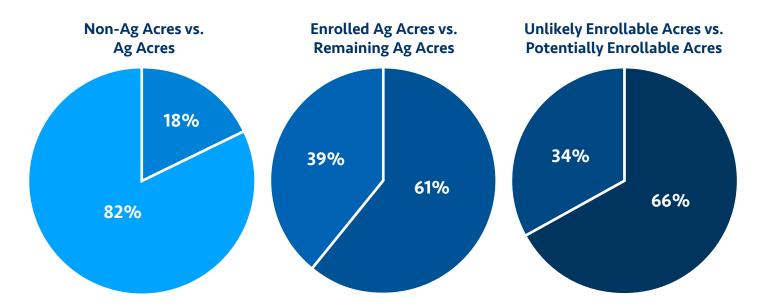
Agricultural Acres Within Parcel	Number of Parcels	Total Agricultural Acres
<1	20	13
1 - 25	281	1,731
25 - < 50	25	845
50 - < 250	8	591
TOTAL	334	3,179

BMP Manuals	Acres
Citrus	436
Cow/Calf	113
Fruit & Nut	34
Multiple Commodities	1
Nursery	9
TOTAL	593

Status of Implementation of Agricultural Best Management Practices (BMPs) Orange Creek BMAP

Non- Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
316,754	68,515	26,514	41,983	13,388	25,973

*This value includes acreages within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.



Enrollment and IV Site Summary	2022	2022 Percent Enrolled
Total agricultural acres in the BMAP	68,515	39%
Total agricultural acres enrolled	26,514	
Total irrigated acres	3,418	69%
Total irrigated acres enrolled	2,343	
Number of NOIs within BMAP	209	
Completed IV site visits	86	

Potentially Enrollable Parcel Distribution by Agricultural Acreage

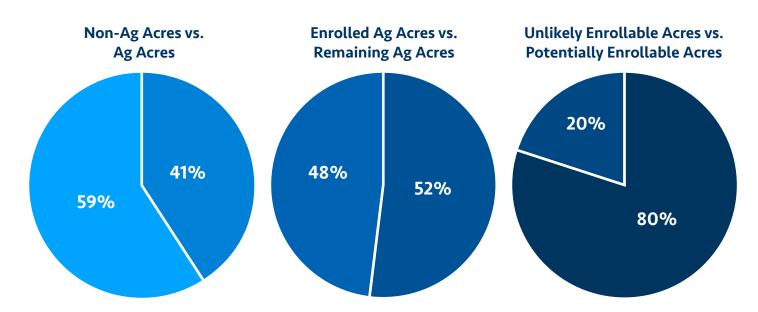
Agricultural Acres Within Parcel	Number of Parcels	Total Agricultural Acres
<1	29	19
1 - 25	999	9,519
25 - < 50	132	4,518
50 - < 250	82	7,419
≥ 250	13	4,498
TOTAL	1,255	25,973

BMP Manuals	Acres
Cow/Calf	14,922
Dairy	114
Equine	2,660
Fruit & Nut	883
Multiple Commodities	4,615
Nursery	47
Row/Field Crop	3,209
Sod	64
TOTAL	26,514

Status of Implementation of Agricultural Best Management Practices (BMPs) Rainbow Springs and River BMAP

Non- Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
254,898	179,905	86,608	93,247	18,775	73,546

*This value includes acreages within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.



Enrollment and IV Site Summary	2022	2022 Percent Enrolled
Total agricultural acres in the BMAP	179,905	48%
Total agricultural acres enrolled	86,608	
Total irrigated acres	15,472	89%
Total irrigated acres enrolled	13,769	
Number of NOIs within BMAP	486	
Completed IV site visits	81	

Potentially Enrollable Parcel Distribution by Agricultural Acreage

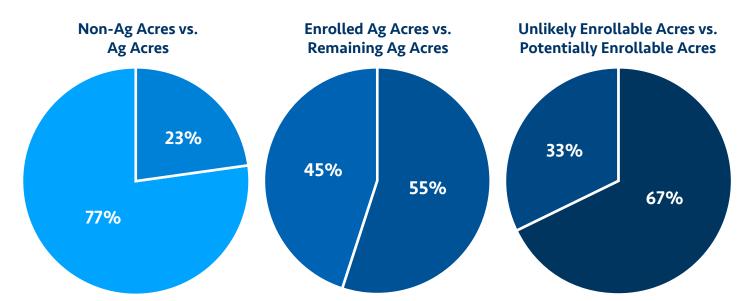
Number of Parcels	Total Agricultural Acres
33	20
2,312	25,583
489	16,833
225	20,407
20	10,703
3,079	73,546
	Parcels 33 2,312 489 225 20

BMP Manuals	Acres
Cow/Calf	22,294
Equine	12,901
Fruit & Nut	22
Multiple Commodities	44,788
Nursery	733
Row/Field Crop	5,850
Sod	20
TOTAL	86,608

Status of Implementation of Agricultural Best Management Practices (BMPs) Santa Fe River BMAP

Non- Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
831,023	245,629	109,686	135,877	43,067	88,771

*This value includes acreages within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.



Enrollment and IV Site Summary	2022	2022 Percent Enrolled
Total agricultural acres in the BMAP	245,629	45%
Total agricultural acres enrolled	109,686	
Total irrigated acres	22,559	83%
Total irrigated acres enrolled	18,624	
Number of NOIs within BMAP	770	
Completed IV site visits	156	

Potentially Enrollable Parcel Distribution by Agricultural Acreage

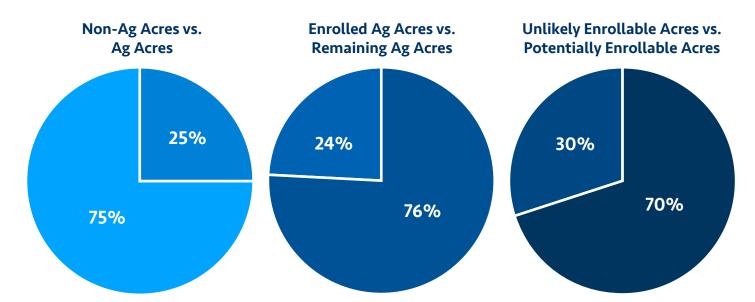
Agricultural Acres Within Parcel	Number of Parcels	Total Agricultural Acres
<1	147	84
1 - 25	4,460	38,163
25 - < 50	615	21,374
50 - < 250	320	27,120
≥ 250	6	2,029
TOTAL	5,548	88,771

BMP Manuals	Acres
Citrus	11
Cow/Calf	36,405
Dairy	887
Equine	50
Fruit & Nut	217
Multiple Commodities	44,413
Nursery	682
Poultry	96
Row/Field Crop	26,512
Sod	413
TOTAL	109,686

Status of Implementation of Agricultural Best Management Practices (BMPs) Silver River and Springs BMAP

Non- Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
476,878	155,928	37,726	118,718	34,031	80,523

*This value includes acreages within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.



Enrollment and IV Site Summary	2022	2022 Percent Enrolled
Total agricultural acres in the BMAP	155,928	24%
Total agricultural acres enrolled	37,726	
Total irrigated acres	7,576	49%
Total irrigated acres enrolled	3,736	
Number of NOIs within BMAP	381	
Completed IV site visits	142	

Potentially Enrollable Parcel Distribution by Agricultural Acreage

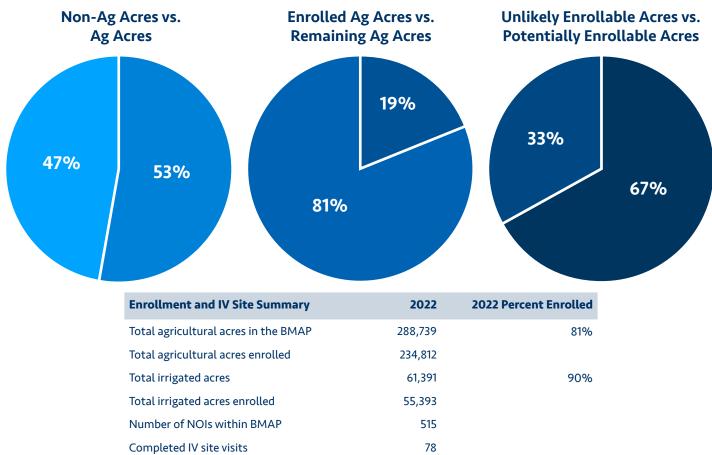
<1 145 8	39
1 - 25 3,740 33,	090
25 - < 50 375 13,	052
50 - < 250 243 23,	,234
≥ 250 29 12,	059
TOTAL 4,532 80	,523

BMP Manuals	Acres
Citrus	554
Cow/Calf	17,719
Dairy	114
Equine	4,170
Fruit & Nut	776
Multiple Commodities	8,705
Nursery	238
Row/Field Crop	5,411
Sod	39
TOTAL	37,726

Status of Implementation of Agricultural Best Management Practices (BMPs) St. Lucie River and Estuary BMAP

Non- Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
251,003	288,739	234,812	53,884	15,006	30,672

*This value includes acreages within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.



Potentially Enrollable Parcel Distribution by Agricultural Acreage

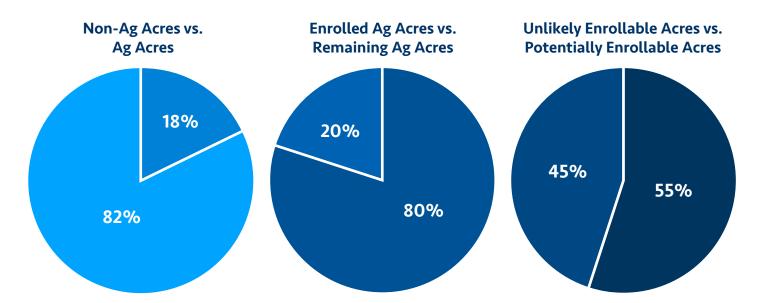
Agricultural Acres Within Parcel	Number of Parcels	Total Agricultural Acres
<1	28	17
1 - 25	764	8,282
25 - < 50	124	4,352
50 - < 250	82	8,055
≥ 250	21	9,965
TOTAL	1,019	30,672

BMP Manuals	Acres
Citrus	6,763
Cow/Calf	129,523
Dairy	617
Equine	612
Fruit & Nut	186
LOPP	3
Multiple Commodities	79,989
Nursery	609
Poultry	42
Row/Field Crop	15,050
Sod	929
Temporarily Inactive	479
Wildlife	10
TOTAL	243,812

Status of Implementation of Agricultural Best Management Practices (BMPs) Upper Ocklawaha River BMAP

Non- Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
462,894	99,104	20,150	78,836	33,719	40,759

*This value includes acreages within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.



Enrollment and IV Site Summary	2022	2022 Percent Enrolled
Total agricultural acres in the BMAP	99,104	20%
Total agricultural acres enrolled	20,150	
Total irrigated acres	12,137	56%
Total irrigated acres enrolled	6,856	
Number of NOIs within BMAP	257	
Completed IV site visits	111	

Potentially Enrollable Parcel Distribution by Agricultural Acreage

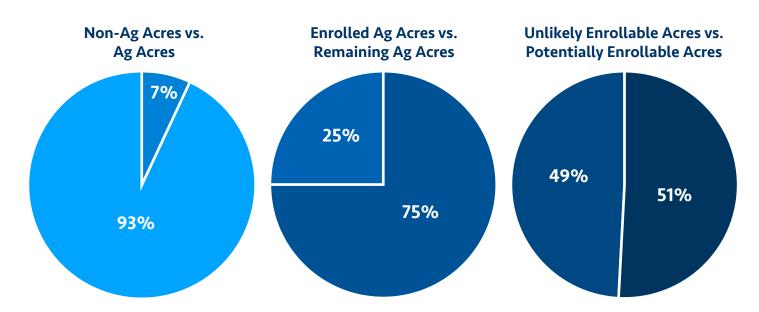
Number of Parcels	Total Agricultural Acres
131	76
1,805	14,944
228	8,001
170	15,514
6	2,224
2,340	40,759
	Parcels 131 1,805 228 170 6

BMP Manuals	Acres
Citrus	4,257
Cow/Calf	9,284
Equine	144
Fruit & Nut	788
Multiple Commodities	2,590
Nursery	1,879
Row/Field Crop	822
Sod	386
TOTAL	20,150

Status of Implementation of Agricultural Best Management Practices (BMPs) Upper Wakulla River and Wakulla Spring BMAP

Non- Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
786,790	61,695	15,172	46,524	22,298	23,338

*This value includes acreages within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.



Enrollment and IV Site Summary	2022	2022 Percent Enrolled
Total agricultural acres in the BMAP	61,695	25%
Total agricultural acres enrolled	15,172	
Total irrigated acres	4,387	63%
Total irrigated acres enrolled	2,748	
Number of NOIs within BMAP	92	
Completed IV site visits	64	

Potentially Enrollable Parcel Distribution by Agricultural Acreage

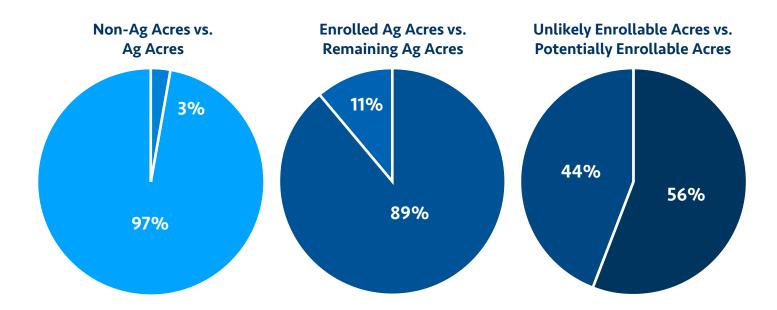
Number of Parcels	Total Agricultural Acres
21	15
964	8,392
114	3,928
71	6,419
8	4,584
1,178	23,338
	Parcels 21 964 114 71 8

BMP Manuals	Acres
Citrus	87
Cow/Calf	4,982
Equine	5
Fruit & Nut	1,713
Multiple Commodities	2,121
Nursery	1,107
Row/Field Crop	4,429
Sod	728
TOTAL	15,172

Status of Implementation of Agricultural Best Management Practices (BMPs) Volusia Blue Spring BMAP

Non- Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
66,707	2,339	238	2,092	926	1,158

*This value includes acreages within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.



Enrollment and IV Site Summary	2022	2022 Percent Enrolled
Total agricultural acres in the BMAP	2,339	10%
Total agricultural acres enrolled	238	
Total irrigated acres	67	37%
Total irrigated acres enrolled	25	
Number of NOIs within BMAP	10	
Completed IV site visits	2	

Potentially Enrollable Parcel Distribution by Agricultural Acreage

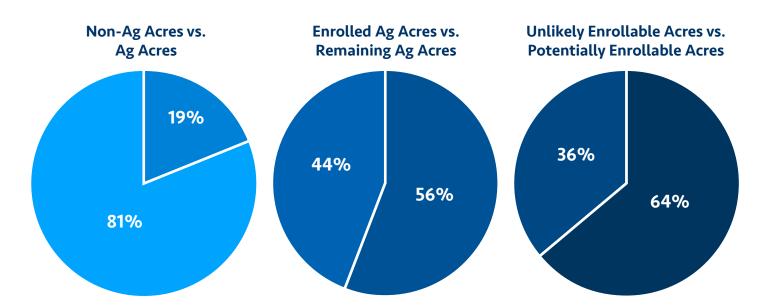
Agricultural Acres Within Parcel	Number of Parcels	Total Agricultural Acres
< 1	3	3
1 - 25	145	910
25 - < 50	6	181
50 - < 250	1	65
TOTAL	155	1,158

BMP Manuals	Acres
Cow/Calf	203
Multiple Commodities	11
Nursery	24
TOTAL	238

Status of Implementation of Agricultural Best Management Practices (BMPs) Wacissa River and Wacissa Spring Group BMAP

Non- Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
265,069	62,515	27,379	35,128	12,728	22,326

*This value includes acreages within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.



Enrollment and IV Site Summary	2022	2022 Percent Enrolled
Total agricultural acres in the BMAP	62,515	44%
Total agricultural acres enrolled	27,379	
Total irrigated acres	3,763	92%
Total irrigated acres enrolled	3,473	
Number of NOIs within BMAP	106	
Completed IV site visits	17	

Potentially Enrollable Parcel Distribution by Agricultural Acreage

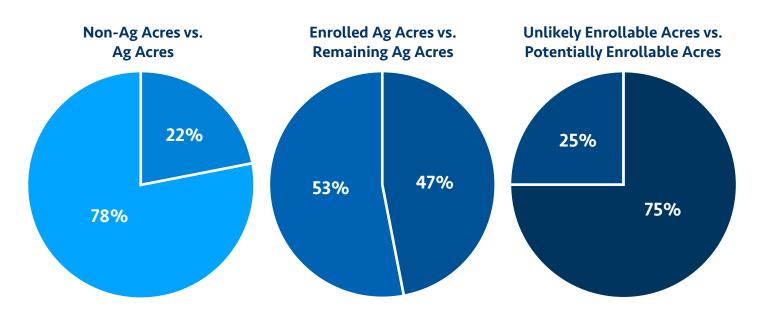
Agricultural Acres Within Parcel	Number of Parcels	Total Agricultural Acres
<1	37	23
1 - 25	809	6,810
25 - < 50	129	4,461
50 - < 250	86	8,210
≥ 250	8	2,821
TOTAL	1,069	22,326

BMP Manuals	Acres
Citrus	108
Cow/Calf	7,860
Dairy	1,259
Multiple Commodities	8,222
Nursery	525
Row/Field Crop	9,405
TOTAL	27,379

Status of Implementation of Agricultural Best Management Practices (BMPs) Weeki Wachee Spring and River BMAP

Non- Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
166,108	47,664	25,055	22,601	5,524	16,772

*This value includes acreages within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.



Enrollment and IV Site Summary	2022	2022 Percent Enrolled
Total agricultural acres in the BMAP	47,664	53%
Total agricultural acres enrolled	25,055	
Total irrigated acres	1,138	59%
Total irrigated acres enrolled	672	
Number of NOIs within BMAP	76	
Completed IV site visits	37	

Potentially Enrollable Parcel Distribution by Agricultural Acreage

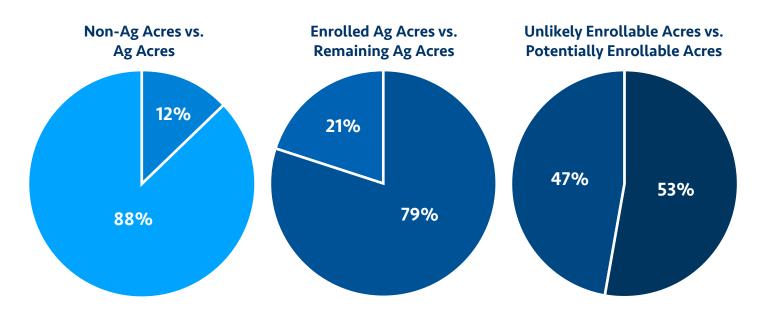
Number of Parcels	Total Agricultural Acres
14	9
612	5,998
92	3,177
58	5,503
5	2,085
781	16,772
	Parcels 14 612 92 58 5

BMP Manuals	Acres
Citrus	109
Cow/Calf	18,835
Equine	16
Fruit & Nut	886
Multiple Commodities	2,918
Nursery	80
Row/Field Crop	604
Wildlife	1,607
TOTAL	25,055

Status of Implementation of Agricultural Best Management Practices (BMPs) Wekiva River, Rock Springs Run, and Little Wekiva Canal BMAP

Non- Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
342,994	48,343	10,025	38,312	16,341	18,178

*This value includes acreages within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.



Enrollment and IV Site Summary	2022	2022 Percent Enrolled
Total agricultural acres in the BMAP	48,343	21%
Total agricultural acres enrolled	10,025	
Total irrigated acres	5,862	60%
Total irrigated acres enrolled	3,499	
Number of NOIs within BMAP	250	
Completed IV site visits	58	

Potentially Enrollable Parcel Distribution by Agricultural Acreage

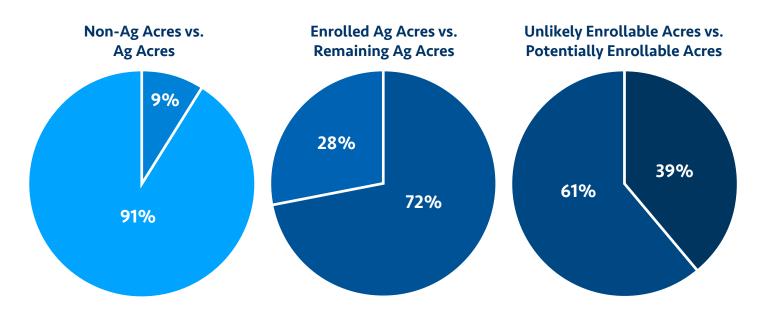
Number of Parcels	Total Agricultural Acres
41	25
828	6,685
112	3,906
70	6,027
5	1,534
1,056	18,178
	Parcels 41 828 112 70 5

-	
BMP Manuals	Acres
Citrus	1,289
Cow/Calf	3,457
Equine	523
Fruit & Nut	315
Multiple Commodities	1,216
Nursery	2,098
Row/Field Crop	741
Sod	386
TOTAL	10,025

Status of Implementation of Agricultural Best Management Practices (BMPs) Wekiwa Spring and Rock Springs BMAP

Non- Agricultural Acres	Agricultural Acres	Enrolled Agricultural Acres	Remaining Agricultural Acres*	Unlikely Enrollable Acres	Potentially Enrollable Acres
175,609	16,674	4,607	12,071	6,669	4,279

*This value includes acreages within state-owned properties and/or surface water project areas that are not included in the 'unlikely enrollable' or 'potentially enrollable' acres categories.



Enrollment and IV Site Summary	2022	2022 Percent Enrolled
Total agricultural acres in the BMAP	16,674	28%
Total agricultural acres enrolled	4,607	
Total irrigated acres	3,652	66%
Total irrigated acres enrolled	2,421	
Number of NOIs within BMAP	160	
Completed IV site visits	27	

Potentially Enrollable Parcel Distribution by Agricultural Acreage

Agricultural Acres Within Parcel	Number of Parcels	Total Agricultural Acres
<1	23	14
1 - 25	287	2,178
25 - < 50	25	880
50 - < 250	17	1,207
TOTAL	352	4,279

BMP Manuals	Acres
Citrus	902
Cow/Calf	529
Equine	39
Fruit & Nut	156
Multiple Commodities	975
Nursery	1,095
Row/Field Crop	547
Sod	364
TOTAL	4,607

Appendix II: Data

The BMP Implementation Verification site visit data used in this report was collected between January 1 and December 31, 2022. The data range and reporting align with the FDEP Statewide Annual Report on Total Maximum Daily Loads, Basin Management Action Plans, Minimum Flows or Minimum Water Levels, and Recovery or Prevention Strategies Report (STAR Report), and some data generated for this report has been provided to FDEP for inclusion in the STAR Report prior to reporting here. Aligning these timeframes ensures consistency between FDACS and FDEP reporting and provides an opportunity for collaboration between agencies.

In addition to information collected during IV site visits, data sources used in this report include Geographic Information System (GIS) mapping data, WMD data, and county property appraiser parcel data. OAWP continuously works to ensure that the data used for reporting is based on an accurate and consistent statewide dataset, and that standard operating procedures for data entry and analyses are followed.

FSAID

The agricultural areas identified in this report are based on the Florida Statewide Agricultural Irrigation Demand (FSAID) datasets. Information on FSAID is available at https://www.fdacs.gov/ Agriculture-Industry/Water/Agricultural-Water-Supply-Planning. This annual report is based on FSAID9. Statewide agricultural acreage and enrolled agricultural acreage vary year to year due to the dynamic nature of the agricultural industry. Ground-truthing efforts are essential for ensuring accuracy when determining the land use types and amount of overall agricultural acreage in the state, as it then becomes the denominator for many analyses in this report. FDACS continues to ground truth and refine the FSAID datasets to ensure accurate identification of agricultural lands in Florida and to spot trends in agricultural land uses and intensities over time. FSAID agricultural land use datasets are updated annually through a combination of methods including consumptive water use permit review, Department of Revenue land use comparison, and ground-truthing. Ground-truthing of the irrigated agricultural lands is undertaken each year in specific counties, which are rotated throughout the state on a five-year cycle. FDACS provides updated datasets to FDEP and the water management districts each year. Work is ongoing with these coordinating agencies to incorporate the FSAID agricultural data into the statewide land use dataset. The water management districts currently use the FSAID agricultural acres for water supply planning, though some perform their own volume calculations. FDEP BMAPs (including reports and BMAP updates) have different agricultural land use acres and calculations because these reports were adopted up to 14 years ago. Further, some of the more recently adopted BMAPs and models continue to use older datasets, so the agricultural acres identified in the BMAPs may not match the current agricultural acres that FDACS uses for analyses and BMP enrollment efforts.

BMP Program Enrollment Data

Each enrolled parcel ID is recorded on the NOI form as a condition of enrollment. Data from each completed and signed NOI and BMP checklist, including the parcel IDs, is entered into the Best Management Practices Tracking System database (BMPTS2). On a monthly basis, the BMPTS2 enrolled parcel data is mapped using the DOR annual statewide GIS parcel data. The mapped enrolled parcel data is used to identify overall BMP enrollment statewide and within adopted BMAP areas, which are also compared to the latest FSAID agricultural land use data. ²⁰

Limitations of Enrollment Data

FSAID Data Limitations

Constant fluctuations in agricultural land use make it difficult to compare previous year data to current year data. Consequently, an agricultural acreage comparison to last year's report is not provided in this report. The FSAID9 report that was released in June 2022 does, however, address the amount of agricultural land use change that occurred in 2022 compared to 2021.

Parcel Data Limitations

Parcel IDs and parcel geometry change every year and introduce challenges when trying to map NOIs. FDACS staff uses the most up-to-date parcel information available on the relevant county property appraiser website to enroll new landowners or producers in the BMP Program and to verify details about the parcels that are currently enrolled (e.g., owner information, parcel number, parcel acreage, etc.). Parcel information available on a county property appraiser's website does not include GIS data for mapping purposes. Enrollments are mapped spatially using parcel data from each county that is submitted to the Florida Department of Revenue (FDOR) and compiled in GIS once per year by FDACS GIS staff. Therefore, information contained in this dataset may be outdated compared to information on the 67 property appraisers' websites during the time of enrollment.

Market Fluctuations

The dynamic nature of Florida's agricultural industry creates challenges with comparing agricultural acres and BMP Program enrollment numbers from year to year. For example, the number of NOIs and the number of acres enrolled in the BMP Program fluctuate when parcels are sold, leases are terminated, production areas decrease, or production ceases. When crop types or commodities on a specific parcel change, additional NOIs may be required if the crop or commodity falls under a different BMP manual. New commodities may also result in a reduction or increase in the acreage enrolled in the BMP Program.

Data Management

OAWP continues to analyze staff workload and areas where efficiencies can be gained. In 2022, staff continued the process of consolidating multiple NOIs for individual landowners or producers within a county, and reassigning NOIs to optimize travel time so that IV sites are accessible within a 40 to 60-minute drive-time. OAWP has also discontinued the practice of completing multiple NOIs for operations located in more than one county in order to reduce paperwork and improve data tracking. The current data system BMPTS2 should be analyzed and designed to geo-enable the SQL environment for streamlined data visualization. The data management group (DMG) will continue dedicating resources towards further modernizing how OAWP does business with data and technology by automating current workflows and advocating for the implementation of GIS into all business processes.

Appendix III: Land Use Characterization

Unenrolled Agricultural Lands Characterization

Overview:

In an FDEP-adopted BMAP, agricultural landowners are required to either enroll in the appropriate FDACS BMP Program and implement applicable BMPs or conduct water quality monitoring prescribed by FDEP or a water management district (WMD). FDACS endeavors to get 100 percent of the enrollable agricultural acres into the appropriate BMP Program by evaluating statewide agricultural land use data using parcel level datasets containing owner information, addresses, and other details at a more granular scale.

Examining statewide agricultural lands at the parcel level provides insight into the challenge of meeting the 100 percent enrollment goal. FDACS identifies parcels that are unlikely to have agricultural activity, either via aerial review, or by classifications within the data, such as parcels that do not have an agricultural tax valuation. In addition, FDACS identifies parcels that require further evaluation, such as those that have agricultural activity intended solely for personal use ancillary to a residence, those that do not have an agricultural land use as determined by the property appraiser, as well as parcels where there is no current activity to enroll.

To monitor progress and allocate staff resources, FDACS analyzes unenrolled agricultural lands annually for all BMAPs and the results are summarized in FDACS's report to the legislature on statewide BMP implementation. Results of these analyses inform staffing and budget requests as well as FDACS's discussions related to inactive operations, urban agriculture, rural homesteads, fallow agricultural lands and more. An unenrolled agricultural land analysis is also performed when FDEP is developing a new BMAP or updating an existing BMAP, and a summary is included in the BMAP's Agriculture Appendix. In addition to including a summary of the characterization, future BMAP iterations should utilize the analysis results to supplement decisions made when modeling land use, allocations, and load estimations. FDACS understands that during the development of BMAP allocations, any change in allocations should be made in coordination with FDEP and BMAP stakeholders at the time of BMAP updates. However, as FDACS performs this analysis on an annual basis, FDACS will present the unenrolled agricultural lands characterizations at BMAP stakeholder meetings and provide spatial coverages to FDEP for consideration as part of future BMAP updates.

This Appendix:

- i. Describes how FDACS executes the unenrolled agricultural lands characterization
- ii. Explains why the ability to implement agricultural BMPs under the OAWP BMP Program is limited or not possible for some of the lands
- iii. Provides recommendations for how these lands should be considered by FDEP within BMAPs

Method:

The unenrolled agricultural lands are characterized at the parcel level using geographic information systems (GIS) software by overlaying FDEP's <u>FL-SOLARIS database</u>, WMD surface water restoration projects (if any), and the latest <u>FL DOR Property Appraiser parcel data</u> with the unenrolled agricultural lands. Based on the location of the unenrolled agricultural lands within these datasets, and using information such as aerials, property appraiser use codes, land use descriptions, agricultural tax valuations, and owner names, FDACS determines if there is agricultural activity and if a parcel is enrollable within the purview of an existing BMP manual. Parcel characterization can be grouped into 4 main bins suggested by DEP:

- Forestry/aquaculture
- Not agricultural land
- Not currently enrollable
- Enrollable agricultural lands

The next section provides details regarding the FDACS characterization categories and DEP bins. **Table 1** provides a summary of the categories and bins.

Bins:

Timberland (Forestry) /Aquaculture

Unenrolled agricultural lands located within parcels that have a land-use designation of Aquaculture or Timberland may be agriculture although that cannot be determined based solely on remote data review. Only site-specific review by FDACS can determine whether the agricultural activity is enrollable in FDACS's Aquaculture BMP Program, Forestry BMP Program or one of the OAWP BMP Programs. Lands covered by FDACS's Aquaculture BMP or Forestry BMP are not included as enrollable in OAWP's BMPs for purposes of the BMAP because they are addressed by the BMPs of other FDACS programs.

In the 2020 South Florida BMAPs (Caloosahatchee, Lake Okeechobee, and St. Lucie) and 2021 Indian River Lagoon BMAPs, aquaculture loads and acreages were recognized to be not enrollable in OAWP BMPs. To identify parcels associated with aquaculture, FDACS utilized their agriculture statewide coverage and a list of active aquaculture facilities provided by the Division of Aquaculture which includes facility names, type, and coordinates. The BMAP reports included a section that summarized number of sites, the associated acreages, and where stakeholders may obtain more information regarding aquaculture activity in the watersheds.

Similar narrative should be included for agricultural acreages and loads deemed enrollable in Forestry BMPs in upcoming BMAPs. To help identify parcels associated with Forestry, FDACS utilizes the property appraiser data and selects those parcels where the land use description or aerial review indicates Timberland. The BMAP reports can include a section that summarizes number of parcels, the associated acreages, and where stakeholders may obtain more information regarding the FDACS Forestry division and forestry BMPs.

Not Agriculture

Unenrolled agricultural lands located within parcels that meet the criteria listed below should not be considered as agriculture and should be removed from the acreages and nutrient loads assigned to agriculture within a BMAP. Any incidental parcels that meet the criteria below but do contain agricultural activity are still subject to the requirements of law and FDACS will pursue enrollment.

DOR Use Code 70-98: Parcels that have a use code of 70-98 are associated with industrial or institutional use such as schools, mines, military lands, churches/cemeteries, rights of way, utilities, government entities, and similar uses. These parcels are not expected to be used for agriculture.

DOR Use Code 99: Parcels that have a use code of 99 have a land use description of "acreage not zoned agricultural – with or without extra features." These parcels are often vacant and have been found (through responses to the FDEP's mailout efforts) to not be utilized for agriculture.

Non-Agricultural Entities: Parcels owned by industrial or institutional entities do not always have DOR Use Codes 70-98. FDACS can identify parcels owned by industrial or institutional entities that don't have a 70-98 use code based on the parcel owner's name. For these industrial or institutional entities parcels that do not have a 70-98 use code and do not have an agricultural tax valuation, FDACS categorizes the parcel as being owned by a non-agricultural entity. Through this process, FDACS often identifies parcels owned by utilities, churches, WMDs, cities, counties, and private entities such as Anheuser Busch, Disney, as well as entities engaged in outdoor recreation, mining, and sewage disposal that are not expected to be used for agriculture.

Parcels without agricultural tax valuation and with a non-agricultural land use: The "Just Value of Land Classified Agricultural" indicates if a parcel is classified agricultural by the county property appraiser pursuant to <u>s. 193.461, F.S.</u> FDACS recognizes the criteria for a parcel to receive this valuation varies from county to county and that these valuations, like other property information, change rapidly. If the data shows a parcel has neither an agricultural tax valuation nor an agricultural land use, the parcel is not expected to be used for agriculture.

Parcels without agricultural tax valuation and with an agricultural land use: Sometimes there are parcels that the county property appraiser has not granted an agricultural valuation despite having assigned the parcel an agricultural land use. Analysis shows that there are not many of these cases and they typically consist of smaller acreage. Considering the nature and infrequent occurrence of this combination of parameters, these parcels are not expected to be used for agriculture.

SOLARIS: Parcels in the Florida State Owned Lands and Records Information System (FL-SOLARIS), developed and maintained by FDEP, are "owned, leased, rented, or otherwise occupied" by a state government entity and are not expected to be used for agriculture. FDACS actively seeks leasing information from FDEP, the WMDs, Florida Division of Management Services, and other government entities, and is working with the State Lands division to include standard language for BMAP requirements in future lease documents.

Water Management District Projects: Parcels within a state or WMD restoration or water storage project boundary, where the purpose is to restore, protect, and preserve the water resources, or to capture and redirect water to areas where it is needed most, are not expected to be used for agriculture.

Not Enrollable

Unenrolled agricultural lands located within parcels that meet the criteria listed below are likely agricultural in nature but are not enrollable in a current BMP manual for one reason or another. Many of the acreage types in this bin are not expected to be enrolled under current circumstances and should not count against the percent enrollment numbers. These unenrolled agricultural lands will be checked at the time of each BMAP evaluation, and possibly more frequently, to determine whether they should be placed in another bin or can be enrolled.

No Overlap: Unenrolled agricultural areas that do not overlap with the property appraiser parcel data. This lack of overlap is due to the space between parcels, delineation, and sometimes missing parcels. Given that enrollment is based on DOR owner information, OAWP cannot pursue enrollment if there is no parcel information available.

Slivers: A parcel that has only a small percentage of its total area identified as agricultural land is known as a "sliver." Slivers are produced when datasets such as land use and parcel boundaries are overlaid and due to small differences in geometry, the resulting spatial boundaries do not align precisely. Slivers are not enrollable because they are an artifact of the geospatial analysis and do not represent lands with active agricultural practices. These acreages are not expected to be enrolled and should not count against the percent enrollment numbers.

Tribal Lands: Sovereign lands under tribal ownership with agricultural activities are not subject to the requirements of Section 403.067, F.S., or other state requirements. Agricultural lands under tribal ownership are not required to enroll or monitor water quality, and the acreages and nutrient loading are recognized to be beyond the authority of current programs within a BMAP. These acreages are not expected to be enrolled and should not count against the percent enrollment numbers.

Parcels with an agricultural tax valuation and with a non-agricultural land use: Unenrolled agricultural lands within a parcel that the county property appraiser has granted an agricultural tax valuation despite having assigned the parcel a non-agricultural land use. Parcels that fall within the "Timber/Aquaculture" or "Not Agriculture" bin are removed from unenrolled agricultural lands prior to evaluation for this category. The typical non-agricultural land use categories that have an agricultural tax valuation are residential categories such as single family, mobile homes, miscellaneous residential, multi-family, or vacant residential. FDACS does not expect these parcels to be used for agriculture. These acreages are not expected to be enrolled and should not count against the percent enrollment numbers.

Future policy discussions will determine how these properties should be considered and the agency/governing entity that can best assist these properties to meet BMAP requirements. Based on policy discussions, these properties may be removed from FDACS statewide agricultural land use coverages.

Fallow Agricultural Lands: Unenrolled agricultural lands within parcels that have an agricultural tax valuation and the DOR data indicate an agricultural land use. These parcels have not been previously enrolled, do not have any active agriculture compatible with the current OAWP BMP Program, and cannot be enrolled in the current BMP Program.

FDACS will maintain a list/shapefile of parcels categorized as fallow agricultural lands that can be provided to FDEP as needed. Future policy discussions will determine any parameters necessary to maintaining and verifying this designation as well as whether loading and acreages should be handled as a separate agriculture category that has enrollment limitations.

Rural Residential: Unenrolled agricultural lands within parcels that have an agricultural tax valuation and the DOR data indicate an agricultural land use. The parcel(s) contains or is contiguous with a residence and may have livestock, crops, etc. for personal use of the resident (includes equine communities). There are thousands of rural residential lands of various sizes throughout Florida,

FDACS will maintain a list/shapefile of parcels categorized as rural residential that can be provided to FDEP as needed. Future policy discussions will determine how these properties should be considered and the agency/governing entity that can best assist these properties to meet BMAP requirements. Based on continuing policy discussions, these properties may be removed from FDACS statewide agricultural land use coverages.

No Applicable Manual: Unenrolled agricultural lands within parcels that have an agricultural tax valuation, and the DOR data indicate an agricultural land use. These parcels do not have any active agriculture compatible with the current OAWP BMP Program and cannot be enrolled in the current BMP Program. These parcels may be compatible with the previously considered "Diversified Operations."

FDACS will maintain a list/shapefile of parcels categorized as "No Applicable Manual" that can be provided to FDEP as needed.

Agriculture

Parcels with agricultural tax valuation and have an agricultural land use: The "Just Value of Land Classified Agricultural" indicates if a parcel is classified agricultural by the county property appraiser pursuant to <u>s. 193.461, F.S.</u> FDACS recognizes the criteria for a parcel to receive this valuation varies from county to county and that these valuations, like other property information, change rapidly. However, if DOR data indicate that the county property appraiser has granted a parcel this valuation and assigned the parcel an agricultural land use, FDACS considers the parcel agriculture.

Remaining Agricultural lands: Unenrolled agricultural lands that did not meet any of the criteria identified in the Timberland (Forestry)/Aquaculture, Not Agriculture, or Not Enrollable.

Table 7. FDACS Categories and DEP Bins

Category	Ag Yes or No	BMAP Action	DEP Bin
Aquaculture	Yes	Handle loads separately. Include Aquaculture narrative in BMAP.	Timberland/ Aquaculture
Timberland (Forestry)	Yes	Handle loads separately. Include Timberland/ Forestry narrative in BMAP.	
DOR Use Code 70-98	No	Reassign acreages and nutrient loads.	Not Agriculture
DOR Use Code 99	No	Reassign acreages and nutrient loads.	
Non-Agricultural Entities	No	Reassign acreages and nutrient loads.	
Agricultural tax valuation = No AND Parcel Land Use = Not Agriculture	No	Reassign acreages and nutrient loads.	
Agricultural tax valuation = No AND Parcel Land Use = Agriculture	No	Reassign acreages and nutrient loads.	
Within SOLARIS	No	Reassign acreages and nutrient loads.	
Within WMD Project	No	Reassign acreages and nutrient loads.	
No Overlap	Yes	Agriculture load. Include narrative in BMAP regarding enrollment limitations.	Not Enrollable
Sliver	Yes	Agriculture load. Include narrative in BMAP regarding enrollment limitations.	
Tribal Lands	Yes	Agriculture acreages and loads but handle separately. Include Tribal Lands narrative in BMAP.	
Fallow Agricultural Lands/Rural Residential	TBD	Initially included as agriculture load. Include narrative in BMAP regarding enrollment limitations. Once identified after contact with landowner or other means, FDACS will provide list to DEP for consideration of excluding loads and acreages at the time of next BMAP update.	
No Applicable Manuals	Yes	Initially included as agriculture load. Include narrative in BMAP regarding enrollment limitations. Once identified after contact with landowner or other means, FDACS will maintain a list/shapefile of parcels that can be provided to DEP as needed.	
Agricultural tax valuation = Yes and Parcel Land Use = Not Agriculture	TBD	Initially included as agriculture load. Include narrative in BMAP regarding enrollment limitations. FDACS will provide list to DEP for consideration of exclusion loads and acreages at the time of next BMAP update.	
Remaining Agricultural Lands (Ag tax valuation = Yes AND Parcel Land Use = Ag)	Yes	Agriculture load.	Agriculture

Appendix IV: Research and Demonstration Projects

FDACS funds research projects to provide the scientific and technical basis for the OAWP BMP Program, to investigate new, innovative practices, and to demonstrate practices that improve nutrient use efficiencies. Funding priorities for 2022 were:

- Nutrient management systems
 - Agronomic rate recommendations that balance production with water resource protection through the inclusion of water quality monitoring
 - Soil and tissue test calibrations and correlations
 - Controlled Release Fertilizer use efficiency related to seasonality, rainfall, and heat units in Florida for various commodities
 - Fertigation to improve nutrient use efficiency
 - Software and data collection tool development
- Irrigation application and management technologies
- Water resource protection using nutrient mitigation methods and treatment technologies for on-farm or edge-of-farm application
- ▶ Soil Health specific to Florida
 - Mixed species or cover crops for improving nutrient utilization
 - Rotational cropping or integrated crop / livestock systems for improving nutrient utilization
- Demonstrations of water quality improvement projects that provide information on FDACS BMP benefits to water resources with specific reductions in nutrients (lbs./ac) and quantities of water savings

Florida law requires OAWP to prepare research plans and legislative budget requests to support projects each year.²¹ Research conducted in support of the BMP Program has demonstrated reduced nitrogen fertilizer inputs when using precision agriculture technologies such as fertilizer banding equipment, and variable rate irrigation, and by applying the right nutrients at the right time based on plant growth stage. Decision support tools such as soil moisture sensors demonstrate improved irrigation efficiency and reduced nutrient loss to the environment. Research and demonstration projects are ongoing on the use of cover crops to build soil health and reduce fertilizer needs, the use of controlled release fertilizers to improve nutrient use efficiencies, integrating crop and livestock systems, and for the development of decision support tools and models to assist with site-specific guidance.



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