Florida Department of Agriculture and Consumer Services

Office of Agricultural Water Policy

Status of Implementation of Agricultural Nonpoint Source Best Management Practices

July 1, 2021

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

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 the protection of water resources. This report presents information on the status of implementation of the FDACS BMP program that is required annually pursuant to Section 403.0675(2), Florida Statutes. BMP implementation data is reported both statewide and for each area covered by a basin management action plan (BMAP) developed by the Florida Department of Environmental Protection (FDEP). Highlights from this report include:

- Approximately sixty-two percent (62%) of the overall agricultural acreage identified by the Florida Statewide Agricultural Irrigation Demand (FSAID) dataset is enrolled in the BMP program statewide. This includes acreage both inside and outside BMAP areas.

- Eighty-two percent (82%) of the state's irrigated agricultural acres are enrolled in the BMP program. This reflects the prioritization of agricultural operations with more intensive land uses and irrigation systems such as center pivots that result in greater impacts to the water resources of the state.

- Analysis of the unenrolled lands identified as agricultural shows that significant acreage within each BMAP are not likely to have operations that would be eligible for enrollment under the existing FDACS BMP program.

- New legislation created additional BMP obligations effective July 1, 2020. Adjustments to program processes and priorities were needed to ensure the successful completion of more frequent implementation verification (IV) site visits and record retention requirements.

- Approximately twenty percent (20%) of enrolled producers received an IV site visit in 2020. IV site visits increased during the second half of calendar year 2020 because of the new statutory requirements.

- Impacts from COVID-19 and the resulting public health, safety, and welfare precautions significantly impacted the ability of FDACS OAWP to implement several BMP program requirements during the 2020 calendar year, including enrollment and IV site visits. However, OAWP continued to implement established regulatory programs as effectively as possible; identified enrollment opportunities in southern BMAP areas through a targeted mail-out effort; and increased enrollments in other BMAP areas, especially in the Suwannee BMAP.

- BMP program enrollment and IV site visit data evaluated for this report continue to be used to improve data collection methods, improve outreach efforts to help producers understand the BMP program requirements, and to prioritize the cost-share funding processes.

- OAWP continues to develop new methods and electronic tools to provide technical assistance to producer/landowner stakeholders and improve data collection and analysis to ensure accurate and meaningful reporting.

Introduction

Agricultural water quality, irrigation, and water conservation best management practices (BMPs) are an integral part of water resource protection required under the regulatory BMP program implemented by the Florida Department of Agriculture and Consumer Services (FDACS) Office of Agricultural Water Policy (OAWP).

Under the Florida Watershed Restoration Act (FWRA), the Florida Department of Environmental Protection (FDEP) is directed to adopt basin management action plans (BMAPs), which are roadmaps for the restoration of waterbodies to meet total maximum daily loads (TMDLs).[1] As of May 2021, thirty-one (31) BMAPs have been adopted, and two additional BMAPs remain pending while FDEP is preparing to take final action to resolve legal challenges. The BMAPs identify management strategies to achieve TMDLs[2] with agricultural BMPs being the management strategy to address agricultural nonpoint sources and to meet the allocations assigned to agriculture. BMPs are just one strategy that must be implemented in conjunction with other management strategies to achieve the overall load reductions adopted in the TMDLs. Agricultural landowners located within BMAPs are required to either enroll in the FDACS BMP program and properly implement BMPs applicable to their property and operation or conduct a water quality monitoring program.[3]

For the purposes of the BMP program, a BMP is defined by law as a 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 and urban discharges.[4] BMPs must reflect a balance between water quality improvements and agricultural productivity.[5] FDACS develops BMPs statewide based on the most current scientific and technical research. BMPs are adopted by rulemaking through their incorporation into BMP manuals. During enrollment in the BMP program, applicable BMPs for a given production parcel are identified by OAWP representatives and then required to be properly implemented by producers and agricultural landowners. Site-specific factors are considered when determining the applicability of BMPs including commodity type, topography, geology, location of production, soil type, parcel size, and type and sensitivity of the ecological resources in the surrounding areas. Enrolled agricultural landowners and producers that are properly[6] implementing BMPs are entitled to a presumption of compliance with state water quality standards for the pollutants addressed by the BMPs. Additionally, agricultural landowners and producers enrolled in the BMP program are eligible for technical assistance and cost-share funding administered by FDACS.

1. Section 403.067, F.S.; BMAP information is available at https://floridadep.gov/dear/water-quality-restoration/content/basin-management-action-plans-bmaps.
2. Section 403.067(7), F.S.
3. Section 403.067, F.S.
4. Section 373.4595(2)(a), F.S.
5. Id.
6. Section 403.067(7)(c), F.S.

The FWRA authorizes and directs FDACS to develop and adopt those BMPs necessary to achieve the levels of pollution reduction established by FDEP for agricultural pollutant sources adopted in TMDL allocations.[7] FDACS has adopted ten (10) separate BMP manuals that cover nearly all major agricultural commodities in Florida.[8] Newly proposed BMPs are initially verified as effective by FDEP[9] based on underlying research for inclusion in the applicable manual before being adopted by reference in Title 5M, Florida Administrative Code (F.A.C).

OAWP updates existing BMP manuals and considers development of new manuals as new and updated research becomes available. FDACS receives funding from the Florida Legislature each year to conduct research to evaluate and enhance adopted BMPs, develop new BMPs, and to prepare research plans and legislative budget requests to support research projects.[10] Research conducted in support of the BMP program has demonstrated reduced nitrogen fertilizer use on crops when using precision agriculture technologies such as fertilizer banding equipment, drip irrigation, variable rate irrigation, and other techniques such as soil moisture sensors, cover crops, and controlled-release fertilizers. Research further demonstrates that producers can reduce fertilizer application rates through precise application of nutrients at the root zone and at the right timing based on plant growth.[11]

On June 30, 2020, Senate Bill (SB) 712, the "Clean Waterways Act"[12], was signed into law. The requirements of this law, which went into effect July 1, 2020, impact agricultural landowners and producers enrolled in the FDACS BMP program administered by OAWP. As of July 1, 2020, FDACS is required to undertake implementation verification (IV) site visits on properties enrolled in the BMP program every two years, and to review the required records that producers must maintain to demonstrate compliance with the BMPs. The law also requires FDACS to retain records related to the application of nitrogen and phosphorus fertilizers. Record keeping for compliance with applicable BMPs has been a requirement of the BMP program since the adoption of the first manual; however, record retention and aggregation of fertilizer application data by OAWP for use in the BMAP assessment process was not a part of previous implementation assurance or IV site visit programs. As a result, OAWP has updated training programs and BMP program protocols for OAWP representatives to ensure incorporation of this vital process into the existing IV framework.

Data collection and retention requirements established by SB 712 created the need for new data entry and data management tools, standard operating procedures, significant outreach and education efforts, and training programs. These processes and priorities were further adjusted based on workload assessments to ensure that IV site visits are successfully completed on all enrolled operations every two years. Data collection and retention efforts highlighted the wide variation in practice descriptions, record keeping formats, data types, and nutrient sources across the BMP manuals which must be understood when collecting, reporting and using the data. OAWP developed new procedures to implement SB 712 and began the ongoing rulemaking process to implement the statutory direction, including the creation of record keeping tools and forms

7. Section 403.067(7)(c), F.S.
8. One manual addresses wildlife (imperiled state species). The BMP manuals are available at https://www.fdacs.gov/Agriculture-Industry/Water/Agricultural-Best-Management-Practices.
9. Section 403.067(7)(c), F.S.
10. Section 403.067(4)(f), F.S.; Section 373.813(2), F.S.
11. https://www.fdacs.gov/Agriculture-Industry/Water/Agricultural-Best-Management-Practices/BMP-Research
12. Chapter 202-150, Laws of Florida

to aggregate nutrient application data for use in BMAP assessments and other applications. Due to these new record retention requirements, OAWP has seen an increase in the time required to complete an IV site visit. While greater efficiencies will be achieved in the IV site visit process as continued stakeholder outreach and education are accomplished, workload analyses indicate the need for increased resources to successfully complete the statutory IV site visit timeframes, and to accelerate enrollments in the BMP program.

COVID-19 Impacts

Like all Floridians and state government agencies, OAWP encountered impacts from COVID-19 that limited its ability to fulfill its statutory responsibilities. The top priority for OAWP was ensuring the health, safety and welfare of its staff, who were categorized as essential employees, and of its regulated stakeholders. OAWP undertook strict protocols and provided the proper Personal Protective Equipment to OAWP representatives to ensure they were protected and able to continue their regulatory duties. Any OAWP representative that contracted or was exposed to COVID-19 was properly quarantined until safe to return to work. OAWP also deferred to those producers that were reluctant to have OAWP representatives on their properties during the pandemic.

In addition to establishing safety protocols, OAWP instituted procedures to ensure that important programmatic work continued. OAWP representatives who were quarantined or unable to access producer properties were assigned alternative responsibilities such as land use data review and mapping within BMAP areas; training to improve consistency in BMP program implementation; or developing education and outreach tools to share with producers regarding the new requirements contained in SB 712. Virtual hiring and on-line training were conducted to onboard the additional staff that were authorized during the 2021 Legislative Session.

The enrollment and IV site visit data contained in this report reflect the extraordinary efforts undertaken to ensure that the regulatory program requirements continued to be efficiently implemented, notwithstanding the challenges presented by COVID-19 in 2020.

FDACS BMP Program Enrollment

To enroll in the FDACS BMP program, agricultural landowners and producers must meet with an OAWP representative on site to determine the commodity manual and BMPs that are applicable to their operation(s), and then collaborate with the OAWP representative to complete a Notice of Intent to Implement the BMPs (NOI) and the BMP checklist from the BMP manual. Because many agricultural operations are diverse and are engaged in the production of multiple commodities, a landowner or producer may submit multiple NOIs for a single parcel.

The process of enrolling agricultural landowners and producers in the BMP program is staff-intensive, requiring site visits to determine the water resource concerns on site and in the surrounding area, evaluation of production methods and activities, documentation of parcel information, as well as 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 BMAP(s); geology of the site; water resources on or near the site; 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 parcel. BMP program enrollment efforts initially focused on higher intensity agricultural operations such as nurseries and dairies, irrigated acreage, and on parcels greater than 50 acres to achieve the greatest benefits to water resources. In recent years, smaller, bona fide agricultural operations have come into focus. OAWP continues to prioritize enrollments within BMAP areas, specifically those identified in SB 712, and those properties where enrollment and proper implementation of the Applicable BMPs will achieve the greatest benefits to water resources from nutrient reduction.

Pursuant to the requirements of Chapter 62-307, F.A.C., and updates to the St. Lucie, Caloosahatchee and Lake Okeechobee watershed BMAPs in 2020, OAWP has undertaken significant efforts to increase enrollment in those priority BMAPs. OAWP evaluated county property tax records and conducted a mailout to all property owners designated as agriculture within these priority watersheds informing them of the requirement to enroll in the FDACS BMP program or undertake water quality monitoring. The mailout, combined with efforts to more effectively identify land uses within the BMAPs, resulted in the identification of almost 2,000 bona fide agricultural parcels eligible for enrollment. Thousands of parcels designated as agriculture land uses were also identified as possibly being incorrectly classified including certain federal, state or local government-owned lands, rural homesteads, and fallow lands. These parcels require additional analysis and policy discussion regarding the applicability of the FDACS BMP program in these circumstances. Of those parcels identified as agriculture for the purposes of enrollment in the FDACS BMP program, the majority are smaller diversified operations of under 25 acres. OAWP is currently working to develop a BMP manual for diversified operations that will eliminate the requirement for these smaller agricultural landowners and producers to enroll in multiple BMP manuals and will create greater efficiency in BMP enrollment and IV site visits. OAWP will be undertaking additional enrollment mailouts in other BMAP areas as they are developed and updated and anticipates that the data generated by those efforts will further enhance the characterization of activities occurring across the landscape.

If multiple efforts to contact agricultural landowners about enrollment in the BMP program are unsuccessful; or, if the landowner chooses not to enroll in the BMP program or fails to properly implement the Applicable BMPs, OAWP refers the landowner to FDEP to either implement water quality monitoring under the requirements of Chapter 62-307, F.A.C., or be subject to other enforcement action as necessary. Water quality monitoring must demonstrate compliance with water quality criteria for the parameters addressed by the BMAP.[13]

BMP Implementation Verification

FDACS is required to verify that agricultural landowners and producers are properly implementing the Applicable BMPs identified in their NOIs.[14] SB 712 established the requirement for FDACS to conduct IV site visits every two years to verify proper implementation of BMPs and to retain records related to the application of nitrogen and phosphorus nutrient sources. During an IV

13. Chapter 62-307.200, F.A.C.
14. Section 403.067(7)(c)2., F.S.

site visit, FDACS representatives evaluate nutrient management, irrigation management, and water resource protection BMPs to verify their proper implementation on the enrolled property and review the required records that producers must maintain to demonstrate compliance with the BMPs. The FDACS representative and agricultural landowner or producer may also identify additional Applicable BMPs to be implemented moving forward; cost-share opportunities for BMPs or other practices and projects; and discuss topics related to water quality, water conservation, BMAPs and BMP requirements, or changes in the BMP program.

Corrective Action

During a site visit, staff may identify Applicable BMPs that are not being implemented or that require corrective action to achieve proper implementation. When improvement is needed to ensure the proper implementation of BMPs, a corrective action plan will be developed and must be implemented to ensure compliance with the Applicable BMPs and the presumption of compliance with state water quality standards that it provides.[15] If the parcel under a corrective action plan is not owned by the producer, the landowner will also be notified and be sent a copy of the plan. During the corrective action plan timeframe, agricultural landowners and producers remain eligible for cost-share funding for applicable corrective measures based on the eligibility requirements of the cost-share program. An FDACS representative will schedule a follow-up visit to confirm completion of the identified activities and timeframes established under the corrective action plan and will provide written confirmation of compliance to the producer and landowner. If corrective actions are not successful, producers are referred to FDEP for enforcement action.[16]

Cost-Share Funding for BMPs

Enrolled producers are eligible to receive funds from FDACS to implement certain BMPs based on evaluation and approval of the operation and availability of funding. The BMP cost-share program has greatly enhanced the implementation of BMPs and other practices and projects in priority areas and included large-scale innovative technologies. Agricultural technology and precision nutrient application methods are often more expensive than traditional fertilizer broadcasting or irrigation methods, making these practices cost-prohibitive for many producers. It is imperative that innovative agricultural production methods are available to producers so that they can meet water quality goals while remaining financially viable. Providing cost-share for some of the expense to implement nutrient and irrigation reduction methods enables FDACS to assist producers with improving nutrient use efficiency by reducing inputs, and conserving water.

Despite the challenges associated with COVID-19 and the training, education and outreach required to successfully implement the requirements of SB 712, OAWP continues to work with its 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 of the state while maintaining the viability of agricultural production throughout Florida.

15. Chapter 5M-1.009, F.A.C.
16. Id.

Methodology

Agricultural production and water resources across the state are highly diverse. OAWP works to ensure that the data and reporting are based on an accurate and consistent statewide dataset, and that standard operating procedures for data entry and analyses are followed. In 2020, OAWP developed data quality feedback tools, updated standardized procedures for collecting nutrient application records, and increased the availability of training resources. OAWP also continues to work with software providers to make data aggregation more efficient within current recordkeeping frameworks.

BMP IV site visit data used in this report was collected between January 1 and December 31, 2020. 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 the FDACS and FDEP reporting and provides an opportunity for collaboration between agencies.

Additional data sources used for reporting purposes include Geographic Information System (GIS) mapping data, WMD data, county property appraiser parcel data, as well as information collected by FDACS representatives during initial enrollment and IV site visits to producers.

Land Use Mapping

The agricultural areas identified in this report are based on the Florida Statewide Agricultural Irrigation Demand (FSAID) datasets.[17] The ongoing mapping and ground-truthing efforts that FDACS undertakes to refine the FSAID datasets provide the best available data to identify agricultural lands in Florida, as well as continuing trends of agricultural land uses and intensities over time.[18] 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 land use data accuracy when determining the amount of overall agricultural acreage in the state, which then becomes the denominator for many analyses in this report. Notable trends reported in 2020 include increases in irrigated agricultural lands in north Florida and a decrease in overall agricultural acres statewide. These trends are projected to continue over the next two decades.[19]

17. Information on FSAID is available at https://www.fdacs.gov/Agriculture-Industry/Water/Agricultural-Water-Supply-Planning.
18. FSAID agricultural land use datasets are updated annually through a combination of methods including 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 rotating through 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 the reports were adopted up to 12 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 do not match the current agricultural acres that FDACS uses for analyses and BMP enrollment efforts.
19. https://www.fdacs.gov/content/download/84471/file/FSAID-VI-Water-Use-Estimates-Final-Report.pdf.

To capture the land use changes that have occurred since the last FSAID update, OAWP utilized field staff to perform additional land use characterizations for this report during those timeframes when COVID-19 made onsite enrollment and IV visits more challenging. Any part of an agricultural land use from the FSAID7 Agricultural Lands Geodatabase (ALG) that falls outside of the boundaries of parcels enrolled in the FDACS BMP program is considered "unenrolled agricultural lands". Further characterization of these unenrolled agricultural lands is accomplished by overlaying Department of Revenue (DOR) Property Appraiser Parcels data on these unenrolled agricultural lands and evaluating the DOR land use codes, owner name, parcel frequency, and the ALG acres within each parcel.

Some lands are classified as agriculture in FSAID but are unlikely to have enrollable agricultural activities, including parcels that:

- Have DOR use codes associated with industrial or institutional use (codes 7000-9800) such as schools, mines, military lands, churches cemeteries, rights of way and other similar land uses
- Are owned by utilities
- Appear to contain less than one (1) acre of agricultural activity
- Are part of a state or water management district restoration or water storage project
- Have DOR data indicating they have neither an agricultural tax classification nor an agricultural land use
- Are sovereign lands under tribal ownership, which are not subject to the requirements of Section 403.067, F.S., or other state requirements.

Lands owned by the state and lands classified as industrial and institutional are the two largest categories of lands not likely to reflect activities that would be eligible for enrollment under the existing FDACS BMP program. Removing the likely ineligible lands, reduces the unenrolled acres in some BMAPs by 50 percent (50%) or more and by 18 percent (18%) or more in all BMAPs.

The BMAPs with the largest transition from agricultural to urban land use are located predominantly in central Florida[20] reflecting the rapid population growth in that part of the state. Removing the converted lands reduces the unenrolled acres by at least 40 percent in the following BMAP areas: Wekiwa Spring and Rock Springs (59 percent); Lake Okeechobee (52 percent); Wekiva River, Rock Springs Run, and Little Wekiva Canal (51 percent); Upper Wakulla River and Wakulla Spring (46 percent); Caloosahatchee (46 percent); Upper Ocklawaha River (46 percent); St. Lucie (44 percent); Kings Bay and Crystal River Springs (42 percent); Lower St. Johns River Main Stem (40 percent); and Alafia (40 Percent).

In some instances, lands owned by the state (Board of Trustees of the Internal Improvement Trust Fund) or the water management districts may be leased, in whole or in part, for agricultural activities. While such leasing is infrequent, any leasing entity engaged in agriculture is required to enroll in the FDACS BMP program. Coordination between FDACS, FDEP, local governments and the water management districts will ensure that the land use is correctly characterized and that any public lands leased for agricultural activities are required to enroll in the BMP program.

20. BMAPs with less than 10,000 agricultural acres are not counted here as minor acreage changes cause disproportionate change to the percent.

When datasets are compared or combined, differences between them can result in spatial boundaries that do not align precisely, creating "slivers." Slivers are not enrollable agriculture because they are an artifact of the geospatial analysis and do not represent lands with active agricultural activities. For example, a sliver can represent the area between the boundary of a parcel and the beginning of a road, canal or easement. In these analyses, most slivers were captured in the group containing less than one acre of agricultural land. The analyses were performed only within the individual BMAP areas, and not statewide.

FDACS BMP Program Enrollment Data

Data is collected during initial enrollment in the BMP program and updated during IV site visits. 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.[21]

BMP Implementation Verification Site Visits

BMP IV site visits are performed every two years on enrolled parcels using standardized procedures.[22] IV site visits include a review of nutrient and irrigation management records that producers must maintain in order to demonstrate adherence with the program; verification that all other Applicable BMPs are being properly implemented; verification that cost-share practices are being properly implemented; and identification of potential cost share projects or other Applicable BMPs not identified during enrollment. During an IV site visit, OAWP representatives may also identify opportunities for achieving greater efficiency in nutrient, irrigation, or water resource management on the property. Recent changes to law require FDACS to retain certain records pertaining to the application of nitrogen and phosphorus fertilizer and to provide these data to FDEP in aggregate form for each BMAP. This fertilizer data is collected and retained during the IV site visit.

At the conclusion of or within a short period after completion of the IV site visit, the OAWP representative provides the landowner or producer with a list of any additional Applicable BMPs that were identified during the IV site visit; any corrective actions to be undertaken; timeframes for completion; and any opportunities for cost share for eligible practices or projects on the property. The landowner or producer is required to acknowledge receipt of this information and will execute a new BMP checklist or corrective action form identifying any additional BMP or corrective actions.

Producers located in the Everglades Agricultural Area and C-139 Basin as delineated by South Florida Water Management District (SFWMD) implement BMPs according to the SFWMD permitting process adopted under Chapter 40E-63, F.A.C. Producers regulated under Chapter

21. Acres are rounded for reporting purposes. GIS boundary data for BMAP areas is provided by FDEP.
22. Rule 5M-1, F.A.C.

40E-63, F.A.C. are considered to be in compliance with the FDACS BMP program if the producers are in compliance with their SFWMD permits. OAWP does not conduct IV site visits on these 109 NOIs as SFWMD conducts its own site visits and collects records to ensure compliance. Similarly, FDACS does not conduct IV site visits on those portions of production parcels that are regulated under another agency's permitting framework, such as permitted dairy operations or activities regulated under an FDEP biosolids nutrient management plan.

As the requirements of SB 712 and the recent BMAP updates have created a substantial increase in workload, OAWP has performed analyses to determine areas where efficiencies can be gained. Results suggested that efficiencies would improve by consolidating multiple NOIs for individual landowners or producers wherever possible, and reassigning NOIs to optimize travel time so that IV sites are accessible within a 40 to 60-minute drive-time. Recommendations for the creation of new tools for data collection and management have also improved efficiency. Workload and resource needs, however, continue to rise as the number of small parcels identified for enrollment and the need for enrollment site visits resulting from continued mail out and other enrollment efforts steadily increase. Despite the increasing demand on resources, OAWP continues to provide technical assistance for BMP implementation to landowners and producers and to undertake education and outreach efforts with producers, industry representatives and University of Florida IFAS in response to continued questions and challenges arising from the implementation of SB 712.

Limitations of Data

Many landowners and producers have more than one NOI because they are producing multiple agricultural commodities and are implementing BMPs from more than one BMP manual on a single parcel. To prevent duplication when counting acres enrolled under more than one BMP manual, those acres are classified as "multiple commodity." and not included in the individual commodity totals (see one-page BMAP summaries in the Appendix).

Several BMAP boundaries overlap and some NOIs and BMP enrollment acres may therefore be counted in more than one BMAP. As a result, the sum of NOI counts and the sum of NOI acreages for BMAPs will be different than the total provided in the statewide summary. The statewide summary includes data from enrolled parcels both inside and outside of BMAP areas[23]. Updates adopted by FDEP to the Caloosahatchee, Lower St. Johns River Tributary 1, and Lower St. Johns River Tributary 2 BMAPs included significant boundary changes that prevent acreage comparison to previous years' data.

Constant fluctuations in agricultural land use also make it difficult to compare previous year data to current year. This analysis was attempted in 2019, but the analyses created more confusion due to the conditions and caveats required to interpret the findings. Consequently, an agricultural acreage comparison to last year's report is not provided in this report.

Parcel IDs and parcel geometry change every year and introduce issues when trying to map NOIs. When new landowners or producers are enrolled or existing enrolled parcels are verified, the most up-to-date parcel information available on the county property appraiser website is used. The

23. Information is not included for BMAPs where agricultural acreage does not exist, such as Bayou Chico.

latest statewide DOR parcel dataset is used when mapping enrolled parcels, but that dataset is at best, a year behind what is shown on county property appraiser websites. The number of NOIs and the number of acres enrolled in the BMP program fluctuate when parcels are sold, when leases are terminated, or when production areas decrease or production ceases, among other reasons. 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 result in a reduction or increase in the acreage enrolled in the BMP program. OAWP is in the process of mapping NOIs using FSAID data instead of parcel boundaries to reduce the amount of error when mapping enrolled agricultural acres.

OAWP is taking steps to correct some of the mapping issues that have been experienced over the years. Environmental Systems Research Institute, a leader in the Geographic Information Systems (GIS) field, was brought in to assist OAWP with its mapping issues. Instead of mapping enrolled parcels on a monthly basis after NOIs are entered into the database, a workflow is currently being tested that would allow mapping of NOIs as they are entered into the database. This will ensure that the NOI boundary, and parcel(s) geometry, is correct going into the database. Once all NOIs are reviewed and verified, this mapped enrollment coverage now becomes static and will only be edited if changes are required. The necessity to re-map on a monthly basis to keep up with parcel changes throughout the year would no longer be required. As new DOR parcel datasets become available, the static enrolled coverage will be compared to the new DOR parcel dataset to determine how the parcel IDs and geometries have changed over the year.

FDACS discontinued use of producer self-surveys in August 2019, and this report reflects only IV site visit data. The new requirement for collecting fertilizer application records began on July 1, 2020; however, due to the two-year reporting cycle, analyses and reporting on nutrient application data for a complete calendar year that includes all NOIs will not be possible until after the completion of the initial two year cycle that ends on June 30, 2022. Therefore, the first complete dataset for those producers enrolled as of July 1, 2020 will not be available for FDEP analysis until the 2023 version of this annual report.

In the first half of 2020, IV site visits were performed statewide along with concentrated enrollment efforts within the three largest BMAPs: Lake Okeechobee, St. Lucie River and Estuary and Caloosahatchee River and Estuary. After July 1, 2020, when the requirements of SB 712 became law, IV site visit efforts were focused within the priority BMAPs and the rate of IV site visits completed was accelerated despite the additional time needed to collect fertilizer data.

Results and Discussion

Program Enrollment and BMP Implementation Verification

For calendar year 2020, 62 percent (62%) of the agricultural acres identified in FSAID7 were enrolled in the BMP program (**Table 1**). Over 2,800 IV site visits were performed statewide out of 13,840 NOIs representing 20 percent (20%) of all agricultural acres enrolled in the BMP program.

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

Statewide Metrics	Value
Agricultural acres	7,582,111
Number of enrollments (NOIs)	13,840
Agricultural acres enrolled in the BMP program	4,672,975
Number of NOIs represented in IV site visits	2,824
Irrigated agricultural acres	1,877,118
Irrigated agricultural acres enrolled in the BMP program	1,534,442

Table 2 provides a summary of the status of enrollment statewide and within each BMAP area using FSAID7. **Table 3** shows the BMP enrollment status within each BMAP area after the lands not likely to be eligible for enrollment under the existing FDACS BMP program are removed. **Table 4** provides a summary of IV site visits. A one-page summary is also provided for each adopted and pending BMAP area in Florida in the **Appendix**.

Rates of BMP enrollment and reporting vary by geographic area due to several factors including whether a BMAP has been adopted, the date of BMAP adoption, agricultural acres associated with individual parcels within a BMAP or geographic area, types of commodities being produced, and the amount of fallow or vacant lands. Enrollment in the BMP program has been steadily increasing in recent years, especially within areas with an adopted TMDL or BMAP.

Table 2. Status of BMP Enrollment Statewide and Within Adopted and Pending BMAP Areas[24]

Basin Management Action Plan Area	Year Adopted	Agricultural Acres as of December 31, 2020	Percentage of the BMAP area that is Agriculture	Number of NOIs	Total Ag Acres Enrolled	Percentage of Total Ag Acres Enrolled
Statewide (includes BMAP areas and non-BMAP areas)	N/A	7,582,111	20	13,840	4,672,975	62
Alafia River Basin	2014	10,165	22	105	5,496	54
Banana River Lagoon[1]	2013	164	0.2	0	0	0
Caloosahatchee Estuary Basin	2012	451,171	50	478	378,377	84
Central Indian River Lagoon	2013	176,067	37	290	99,451	57
Chassahowitzka-Homosassa Springs	2019	39,142	12	106	14,711	38
DeLeon Spring	2019	11,519	18	38	2,762	24
Everglades West Coast Basin	2012	9,745	18	18	5,573	57
Gemini Springs	2019	929	3	8	376	41
Hillsborough River Basin	2009	17,242	34	58	10,748	62
Jackson Blue Spring and Merritts Mill Pond	2016	41,436	45	229	27,853	67
Kings Bay and Crystal River Springs	2019	13,542	8	35	3,436	25
Lake Harney, Lake Monroe, Middle St. Johns River, Smith Canal	2012	26,058	11	29	12,491	48
Lake Jesup Basin	2010	7,977	8	49	5,723	72
Lake Okeechobee Basin	2014	1,841,433	47	2,631	1,569,697	85
Long Branch	2008	524	14	2	229	44
Lower St. Johns River Basin Mainstem	2008	151,633	8	309	70,896	47
Lower St. Johns River Basin Tributaries I & II	2009	1,312	2	4	762	58
Manatee River Basin	2014	998	6	5	828	83
Middle and Lower Suwannee River Basin	Pending	385,024	29	1,354	211,739	55
North Indian River Lagoon	2013	7,260	3	20	409	6
Orange Creek	2008	68,389	18	214	27,789	41
Rainbow River and Springs[2]	2015	180,537	42	487	91,988	51
Santa Fe River Basin	2012	245,737	23	799	110,246	45
Silver River and Springs[2]	2015	156,584	25	376	41,917	27

1. Agricultural lands were first identified in the basin by FSAID in 2018.
2. Upon resolution of DOAH proceedings, FDEP has indicated that these two BMAPs will be combined into a single BMAP titled "Silver Springs and Upper Silver River and Rainbow Spring Group and Rainbow River BMAP"

24. The examination of unenrolled lands shows that 60 percent of the unenrolled lands statewide fall into two generally low intensity categories of Open Lands and Grazing Lands. Individual BMAPs vary between 35 and 81 percent of their unenrolled lands falling into these categories with two of the smaller BMAPs having only open or grazing lands remaining. This further demonstrates OAWP's focus on enrollment of activities where BMP implementation has the greatest potential benefit to water resources. Looking at the priority BMAPs identified in § 403.067(7)(d)3. F.S., the unenrolled acres in the Lake Okeechobee BMAP are 61 percent open or grazing lands, in Caloosahatchee - 64 percent, in St. Lucie - 49 percent, in Central Indian River Lagoon - 47 percent, and in Silver River and Springs - 67 percent.

Table 2. Continued

Basin Management Action Plan Area	Year Adopted	Agricultural Acres as of December 31, 2020	Percentage of the BMAP area that is Agriculture	Number of NOIs	Total Ag Acres Enrolled	Percentage of Total Ag Acres Enrolled
St. Lucie River and Estuary Basin	2013	293,465	54	533	241,142	82
Upper Ocklawaha River Basin	2007	101,015	18	321	22,170	22
Upper Wakulla River and Wakulla Springs	2015	60,763	7	110	17,187	28
Volusia Blue Springs	Pending	2,389	3	6	114	5
Wacissa River and Wacissa Springs	2019	60,383	18	84	21,159	35
Weeki Wachee Spring & River	2019	48,961	23	83	25,071	51
Wekiva River, Rock Springs Run and Little Wekiva Canal	2015	50,483	13	300	10,137	20
Wekiwa Spring and Rock Springs[3]	Pending	18,172	9	187	4,852	27

3. Once approved, FDEP has indicated that the BMAP will be combined with the Wekiva River, Rock Springs Run and Little Wekiva Canal BMAP.

Table 3. Analysis and Characterization of Unenrolled Lands Within Adopted and Pending BMAP Areas

Basin Management Action Plan Area	Remaining Enrollable Ag Acres from Analysis	Adjusted Ag Acres within BMAP	Adjusted % of the BMAP area that is Agriculture	Adjusted % of Ag Acres Enrolled	Increase in enrollment % with non-ag lands removed
Alafia River Basin	5,496	8,281	18	66	12
Banana River Lagoon[1]	0	45	<1	0	0
Caloosahatchee Estuary Basin	378,377	417,356	47	91	7
Central Indian River Lagoon	99,451	159,391	33	62	6
Chassahowitzka-Homosassa Springs	14,711	29,760	9	49	12
DeLeon Spring	2,762	8,528	13	32	8
Everglades West Coast Basin	5,573	7,280	13	77	19
Gemini Springs	376	655	2	57	17
Hillsborough River Basin	10,748	15,530	31	69	7
Jackson Blue Spring and Merritts Mill Pond	27,853	36,719	40	76	9
Kings Bay and Crystal River Springs	3,436	9,257	5	37	12
Lake Harney, Lake Monroe, Middle St. Johns River, Smith Canal	12,491	20,818	9	60	12

1. Agricultural lands were first identified in the basin by FSAID in 2018.

Table 3. Continued

Basin Management Action Plan Area	Remaining Enrollable Ag Acres from Analysis	Adjusted Ag Acres within BMAP	Adjusted % of the BMAP area that is Agriculture	Adjusted % of Ag Acres Enrolled	Increase in enrollment % with non-ag lands removed
Lake Jesup Basin	5,723	6,667	7	86	14
Lake Okeechobee Basin	1,569,697	1,700,247	44	92	7
Long Branch	229	427	12	54	10
Lower St. Johns River Basin Mainstem	70,896	119,071	7	60	13
Lower St. Johns River Basin Tributaries I & II	762	883	1	86	28
Manatee River Basin	828	937	6	88	5
Middle and Lower Suwannee River Basin	211,739	336,482	25	63	8
North Indian River Lagoon	409	4,076	2	10	4
Orange Creek	27,789	52,450	14	53	12
Rainbow River and Springs[2]	91,988	163,624	38	56	5
Santa Fe River Basin	110,246	204,336	19	54	9
Silver River and Springs[2]	41,917	124,018	20	34	7
St. Lucie River and Estuary Basin	241,142	270,631	50	89	7
Upper Ocklawaha River Basin	22,170	65,296	12	34	12
Upper Wakulla River and Wakulla Springs	17,187	40,810	5	42	14
Volusia Blue Springs	114	1,470	2	8	3
Wacissa River and Wacissa Springs	21,159	47,307	14	45	10
Weeki Wachee Spring & River	25,071	42,792	20	59	7
Wekiva River, Rock Springs Run and Little Wekiva Canal	10,137	30,121	8	34	14
Wekiwa Spring and Rock Springs[3]	4,852	10,316	5	47	20

1. Agricultural lands were first identified in the basin by FSAID in 2018.
2. Upon resolution of DOAH proceedings, FDEP has indicated that these two BMAPs will be combined into a single BMAP titled "Silver Springs and Upper Silver River and Rainbow Spring Group and Rainbow River BMAP"
3. Once approved, FDEP has indicated that the BMAP will be combined with the Wekiva River, Rock Springs Run and Little Wekiva Canal BMAP.

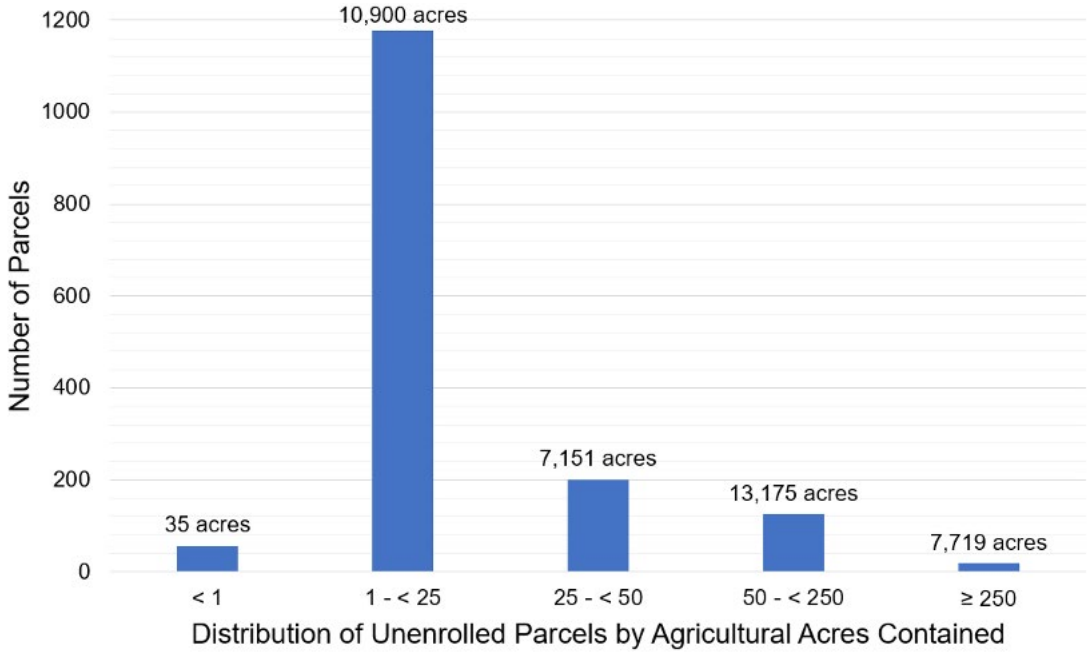
Table 4. Status of IV Visits Within Adopted and Pending BMAP Areas

Basin Management Action Plan Area	Number of NOIs	Number of IV site visits conducted in 2020
Statewide (includes BMAP areas and non-BMAP areas)	13,840	2,824
Alafia River Basin	105	7
Banana River Lagoon	0	0
Caloosahatchee Estuary Basin	478	41
Central Indian River Lagoon	290	90
Chassahowitzka-Homosassa Springs	106	33
DeLeon Spring	38	0
Everglades West Coast Basin	18	0
Gemini Springs	8	2
Hillsborough River Basin	58	1
Jackson Blue Spring and Merritts Mill Pond	229	82
Kings Bay and Crystal River Springs	35	6
Lake Harney, Lake Monroe, Middle St. Johns River, Smith Canal	29	4
Lake Jesup Basin	49	14
Lake Okeechobee Basin	2,631	225*
Long Branch	2	0
Lower St. Johns River Basin Mainstem	309	60
Lower St. Johns River Basin Tributaries I & II	4	0
Manatee River Basin	5	0
Middle and Lower Suwannee River Basin	1,354	808
North Indian River Lagoon	20	1
Orange Creek	214	37
Rainbow River and Springs	487	174
Santa Fe River Basin	799	268
Silver River and Springs	376	78
St. Lucie River and Estuary Basin	533	45
Upper Ocklawaha River Basin	321	92
Upper Wakulla River and Wakulla Springs	110	14
Volusia Blue Springs	6	0
Wacissa River and Wacissa Springs	84	19
Weeki Wachee Spring & River	83	31
Wekiva River, Rock Springs Run and Little Wekiva Canal	300	43
Wekiwa Spring and Rock Springs	187	16

*There are 109 NOIs that are regulated by the SFWMD under Chapter 40E-63, F.A.C. FDACS does not conduct IV site visits on these NOIs because BMP implementation is verified by SFWMD as part of the Chapter 40E-63 F.A.C. permits.

Examination of parcel size and acreage distribution (**Figure 1**) assists with allocating the limited staffing resources and determining future staffing needs required to meet the goals outlined in the BMAPs. To be enrolled, each parcel requires at least one site visit by an FDACS representative. A single site visit can take from two to eight hours depending on the level of preparation required (e.g. identifying vulnerable areas, the diversity or complexity of the operation, and applicable permit and record review), as well as travel and field time. To make the most efficient use of resources and achieve the greatest BMP enrollment coverage on agricultural lands, parcels with larger acres (>25 acres) or intensive operations of any size have historically been prioritized. When a BMAP is adopted, landowners have 180 days to enroll in the BMP program or begin monitoring under a plan approved by FDEP or the appropriate water management district.[25] OAWP continues to improve efficiencies, develop tools, and determine methods for meeting these requirements with its available resources.

Figure 1. Distribution of unenrolled agricultural acreage on parcels with potential agricultural activity[26]



Southern BMAP Mailout Analysis

The January 2020 BMAP updates for the Northern Everglades watersheds (Lake Okeechobee, St. Lucie and Caloosahatchee) require FDACS to provide a list of unenrolled agricultural landowners to FDEP within one year after adoption of the BMAP updates. In response, efforts in these BMAPs were accelerated to enroll all agricultural lands identified in FSAID in the BMP program. OAWP identified 11,270 unenrolled parcels in these southern BMAP areas that could be eligible for enrollment under the existing FDACS BMP program. Using landowner information provided in county property appraiser datasets, OAWP conducted a mass mailout alerting the landowners to

25. Chapter 62-307, F.A.C.
26. The horizontal axis groups parcels based on the acres of agriculture they contain. The vertical axis shows the number of parcels within each group. The label above each bar is the total acres in each group.

the BMAP requirements. The letter provided parcel information and instructions for contacting OAWP to schedule an enrollment site visit. Landowners with multiple, unenrolled parcels received only one letter identifying all applicable parcel information simultaneously. This reduced the number of letters sent and prevented owners from receiving multiple letters.

OAWP sent 7,186 letters representing the 11,270 unenrolled parcels in a phased approach based on the size of the parcel. Letters for phase one were sent to landowners with parcels 50 acres and greater; phase two covered landowners with 25 to 50 acres; phase three covered landowners with less than 25 acres. OAWP received 3,091 responses to the initial letters. A fourth mailing was completed to correct parcel owner information based on feedback from landowners who received the original letters.

Through discussion and follow-up with the landowners, OAWP determined that some parcels were fallow, rural residential, aquaculture, or silviculture and therefore did not require enrollment. Additional response categories are shown in **Figure 2**. Subsequent enrollment site visits were performed or are pending (**Figure 3**).

Figure 2. Response Categories for the South Florida Mailout

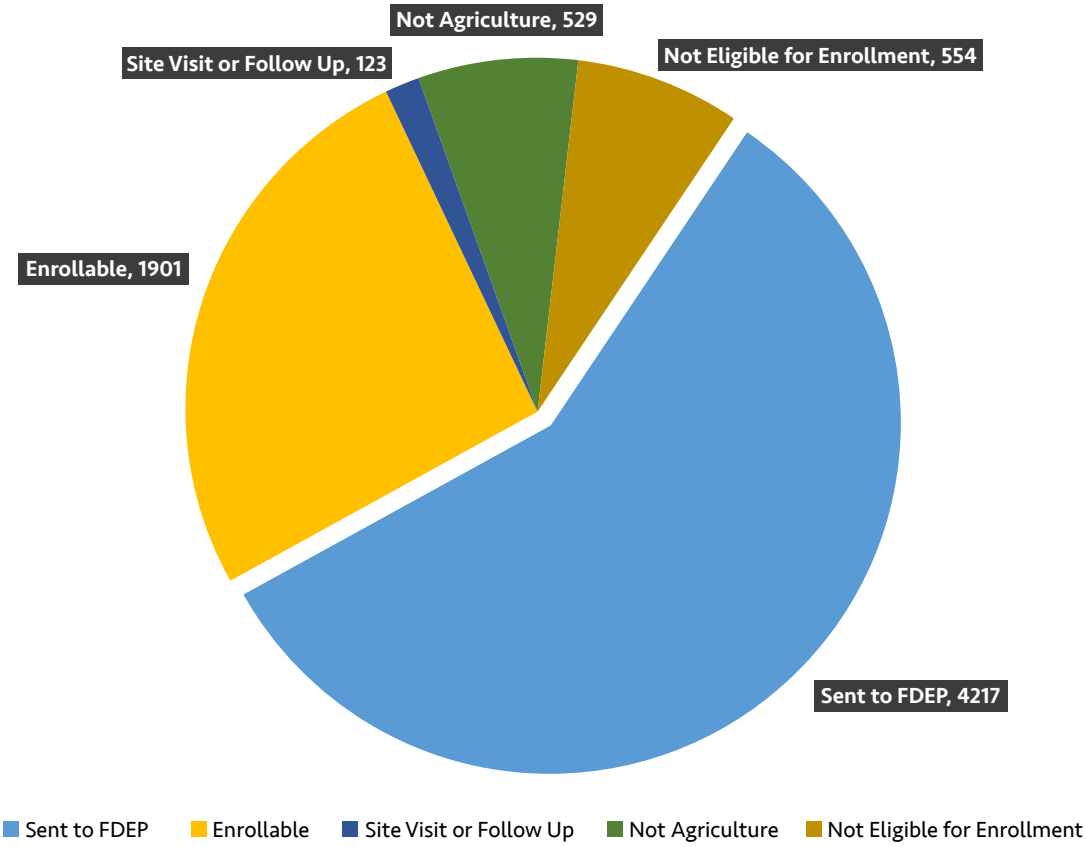
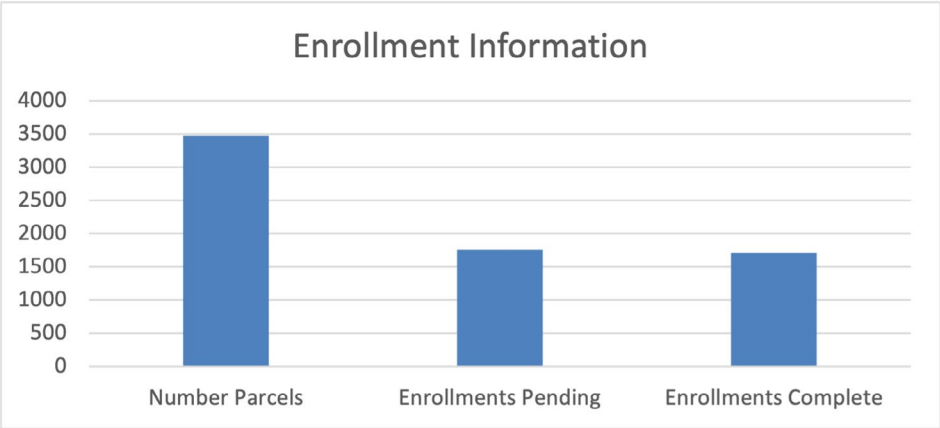


Figure 3: Enrollment Summary Results from South Florida Mailout



Corrective Action

In 2020, of the 2,824 IV site visits performed, corrective action plans were initiated for 18 NOIs representing 14 producers. Corrective actions were initiated due to missing soil and/or tissue test records. Eight of the corrective actions were resolved as of this reporting. The results of the IV site visits demonstrate that the majority of enrolled landowners or producers are properly implementing the Applicable BMPs that were identified on their parcel. However, during many IV site visits, the need for increased education and assistance for producers regarding collection and retention of fertilizer application data was identified. OAWP developed a "Frequently Asked Questions" document regarding SB 712 implementation and other technical assistance tools for producers in lieu of corrective action to ensure compliance. OAWP has also partnered with UF/IFAS extension on a number of webinars and cooperative discussions to discuss the new legal requirements. FDACS is working to create short videos designed to provide clarity in the implementation of the BMP program. Additional research needs have been identified in the areas of nutrient application rates to reflect the variance in soil types and production practices, as well as holistic production management to increase nutrient use efficiencies across the production landscape.

Landowners or producers are provided notification of any additional Applicable BMPs or corrective actions identified for the parcel during the site visit; corrective actions required; the timeframes within which they must be completed; and cost-share opportunities that would provide conservation and water resource benefits. Corrective actions must be completed within the timeframes provided and OAWP representatives verify that the actions were properly completed. Subsequent analysis of the production site then occurs at the next IV site visit. The most common types of corrective action include the failure to keep the records required by the applicable BMP manual, failure to keep the records properly to facilitate verification, failure to properly implement an Applicable BMP, and failure to provide the required fertilizer application data pursuant to SB 712. Compliance procedures tied to corrective action for failure to implement the BMPs applicable to the agricultural production area is subject to the requirements of Section 5M-1.009, F.A.C. These procedures are slightly different than those used by OAWP and FDEP to refer those producers who do not enroll in the BMP program to the water quality monitoring requirements under Chapter 62-307, F.A.C.

Cost-Share

During 2020, 688 projects were completed statewide, including 422 projects within BMAP areas. **Table 5** lists the total amount of cost-share reimbursements for projects completed in 2020 in each BMAP area. The total cost-share reimbursement in BMAP areas for 2020 was $18,578,403.18. If all BMAP costs were totaled in Table 5, the amount spent for completed projects would be higher than actual cost-share reimbursement because some BMAP boundaries overlap and some NOIs overlap into two or more BMAP areas. **Table 6** lists the total amount of cost-share reimbursement for projects completed in 2020 for each BMP category. OAWP also provided cooperative cost-share funding during the year that is not included in the funding totals in Tables 5 and 6 because it is administered through the water management districts.

Table 5. Cost-share for Projects Completed in 2020 by BMAP

BMAP Name	Total Costs of Projects Completed in 2020
Alafia River Basin	$23,309.33
Caloosahatchee Estuary Basin	$387,858.31
Banana River Lagoon	--
Central Indian River Lagoon	$226,168.24
Chassahowitzka-Homosassa Springs	$20,247.54
Hillsborough River Basin	--
Jackson Blue Spring	$611,114.18
Lake Okeechobee Basin	$9,385,635.57
Lower St. Johns River Basin Main Stem	$687,608.33
Middle and Lower Suwannee River Basin	$1,468,061.85
Orange Creek	$46,295.39
Rainbow River and Springs	$120,651.57
Santa Fe River Basin	$596,771.39
Silver River and Springs	$98,213.17
St. Lucie River and Estuary Basin	$501,963.37
Upper Ocklawaha River Basin	$22,192.50
Upper Wakulla River and Wakulla Spring	$83,757.83
Wacissa River and Wacissa Springs	$93,906.54
Weeki Wachee Spring and River	$35,758.50
Wekiva River, Rock Springs Run, and Little Wekiva Canal	$2,313.38
Wekiwa Spring and Rock Springs	$38,517.74
Outside any specific BMAP area	$4,128,058.45

Table 6. Cost-share for All Projects Completed Statewide in 2020 by BMP Category

BMAP Name	Total Costs of Projects Completed in 2020
Irrigation Management	$6,801,397.79
Nutrient Management	$8,235,470.65
Water Resource Protection	$3,541,534.74

Summary and Next Steps

OAWP continues to update and refine enrollment, reporting, and educational tools to reflect programmatic needs and legislative direction. Senate Bill 712, adopted during the 2020 Legislative Session, added to requirements initially adopted during the 2016 Legislative Session and directed significant changes to the BMP program. In response, OAWP continues to make substantial improvements to the BMP program that include:

- Enhancing coordination and communication with agricultural producers, agencies, industry groups, and legislative members and staff about statutory requirements and BMP program changes. Enhancements include the development of instructional videos, web-based applications, and technical assistance tools to aid in BMP program outreach and implementation.

- As BMAPs are updated, undertaking targeted mailout efforts to ensure that all entities identified as agriculture are contacted about BMP program requirements and either enrolled or identified to FDEP for water quality monitoring, or identified as a special land use that requires additional policy discussion as to the applicability of the BMP program.

- Improving GIS agricultural land use classifications and undertaking more complex analyses of underlying land use codes for those properties identified as agriculture under BMAPs. This will result in more accurate data on agricultural production acreage throughout the state; clarify those land uses that are enrollable under the BMP program; and improve identification of rural residences, smaller diversified agricultural operations, fallow lands, and other land uses within the FDACS mapping database that require future policy consideration.

- Updating and creating digital tools for staff to use to meet enrollment and IV site visit requirements and to assist with record keeping for compliance and retention purposes. These tools will increase data standardization, improve efficiency, and assist producers in meeting the requirements of SB 712.

- Targeting cost-share funding within BMAP areas to achieve the greatest benefits to the water resources through nutrient reduction and improving the process for tracking the use of cost-share funding.

- Rulemaking to update Chapter 5M-1, F.A.C. to clarify the enrollment and IV site visit process; ensure that the rule language is consistent with the requirements of SB 712; adopt new forms for the identification of the Applicable BMPs for a production area; provide clarity and consistency in the collection and retention of fertilizer application information; and tighten timeframes for corrective action and referral to FDEP in the case of non-compliance.

The requirements of SB 712 and the directives of the Northern Everglades BMAPs will impact the metrics in the annual report due on July 1, 2022. Data for that report will cover calendar year 2021 but will reflect the 18-month period since SB 712 implementation. While the 2022 report will cover a more comprehensive dataset, the full two-year dataset of IV site visits and the records collected for producers enrolled as of 2020 will not be available until the 2023 report.

Additional improvements that will enhance the ability of OAWP to support the water and environmental goals of the state include:

- Continuing to re-evaluate and update each BMP manual to achieve consistency in formatting, assess the accuracy of each manual, and to examine and incorporate, where appropriate, current research to improve the manual.

- Incorporating technical assistance tools to aid producers in the identification of the Applicable BMPs that will result in the greatest benefits to water resources, and that will generate a comprehensive report at the conclusion of an IV visit that integrates any additional Applicable BMPs, corrective action and timeframes for completion, and any cost share opportunities.

- Improving contract management processes and coordination with state agencies and Soil and Water Conservation District partners to identify and prioritize eligible practices and projects to ensure the efficient and effective use of cost-share funds to achieve water resource conservation goals.

- Undertaking targeted research projects in coordination with other agencies, educational institutions and stakeholder partners through the development of a Research Plan and associated Legislative Budget Request, that will facilitate future updates of the BMP manuals, the development of new manuals, and the expenditure of cost-share funds.

- Conducting additional agricultural land uses characterizations for each BMAP area to help focus enrollment and cost-share funding that will provide the greatest benefits to water resources through nutrient reduction.

Appendix:
Status of Implementation of Agricultural Best Management Practices for Each Basin Management Action Plan Area

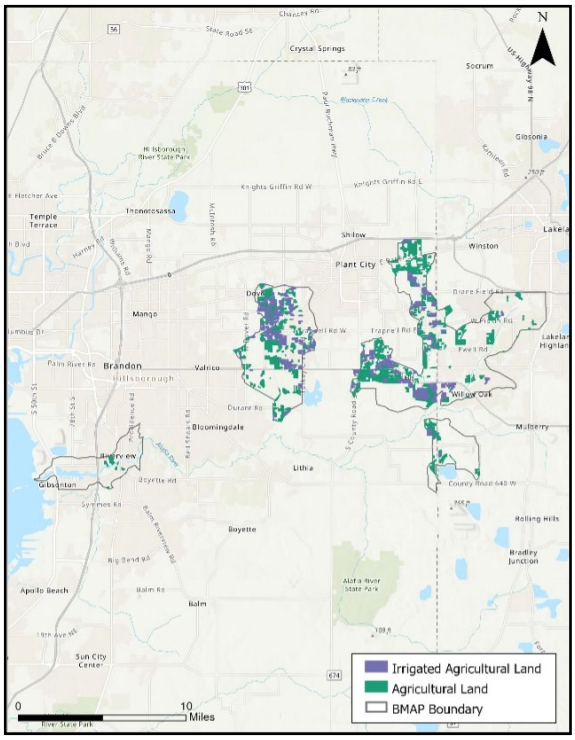
Statewide

Enrollment Summary	2020
Total agricultural acres statewide	7,582,111
Total acres enrolled	4,672,975
Percentage of agricultural acres enrolled	62%
Total irrigated acres	1,877,118
Total irrigated acres enrolled	1,534,442
Percentage of irrigated acres enrolled	82%

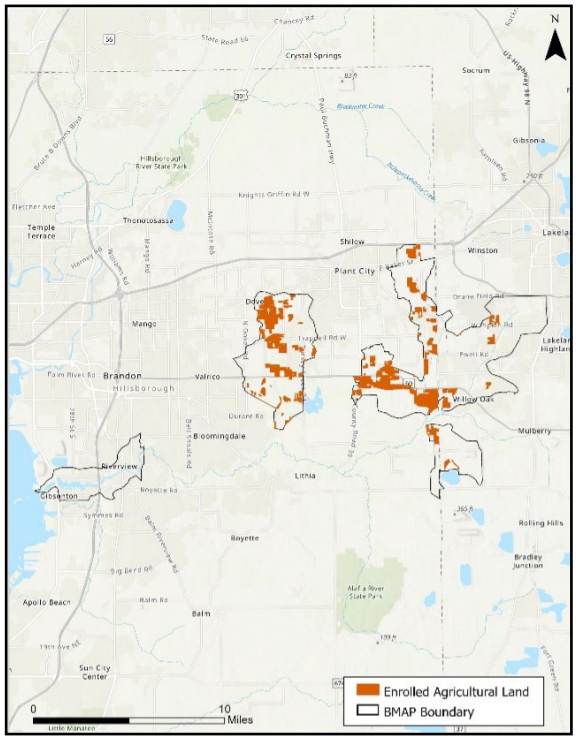
FSAID Agricultural Acres Enrolled

BMP Manuals	Acres
Citrus	490,788
Conservation Plan Rule	182,295
Cow/Calf	1,952,719
Dairy	54,550
Equine	20,758
Fruit & Nut	20,593
Lake Okeechobee Protection Plan (LOPP)	21,707
Multiple Commodities	777,918
Nursery	33,828
Poultry	1,235
Row/Field Crops	1,067,891
Sod	33,887
Wildlife	14,660
Temporarily Inactive	146
TOTAL	4,672,975

Status of Implementation of Agricultural Best Management Practices (BMPs) in the Alafia River Basin



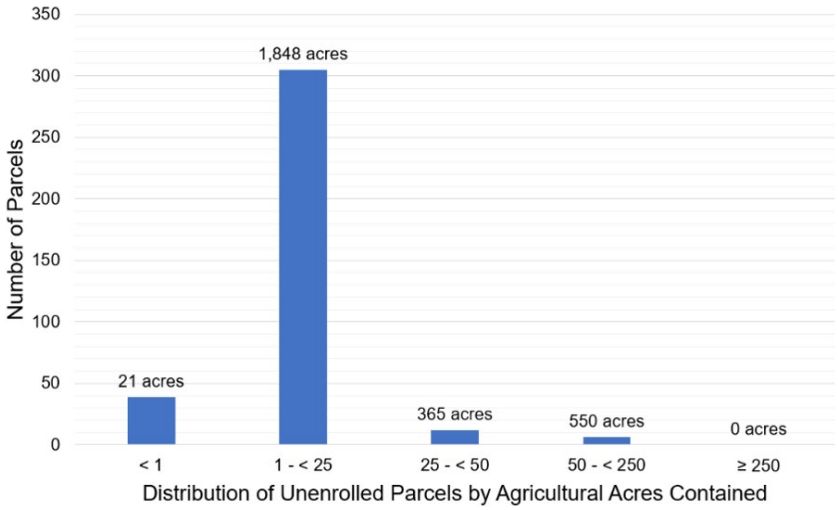
Agricultural Lands in BMAP Area



Enrolled Agricultural Lands in BMAP Area

Enrollment and Response Summary	2020	2020 Percent Enrolled
Total agricultural acres in the BMAP	10,165	54
Total agricultural acres enrolled	5,496	
Total irrigated acres	3,408	79
Total irrigated acres enrolled	2,707	
Number of NOIs within BMAP	105	
Completed IV site visits	7	

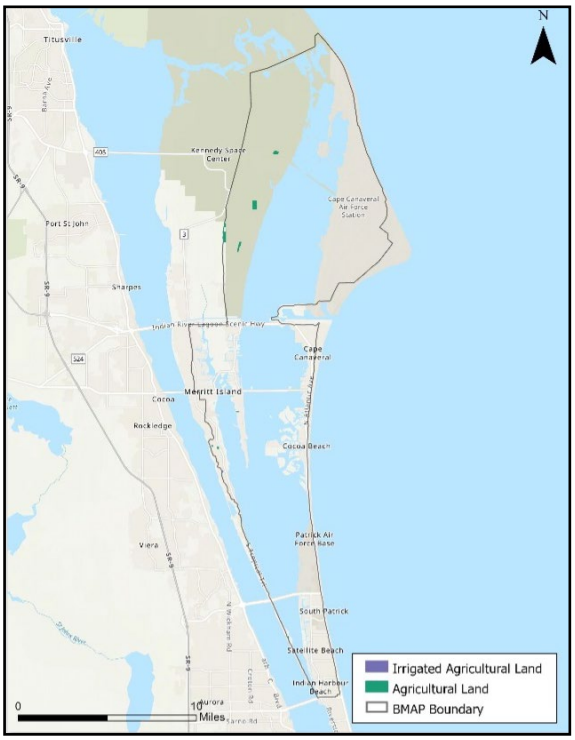
Unenrolled Lands Characterization



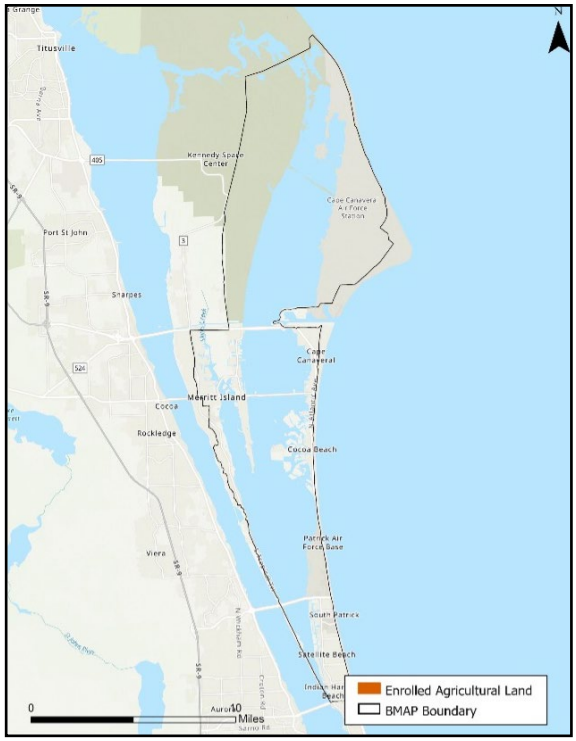
Agricultural Acres Enrolled

BMP Manuals	Acres
Citrus	0
Cow/Calf	1,573
Equine	29
Fruit & Nut	257
Multiple Commodities	278
Nursery	247
Row/Field Crops	3,112
Sod	0
TOTAL	5,496

Status of Implementation of Agricultural Best Management Practices (BMPs) in the Banana River Basin



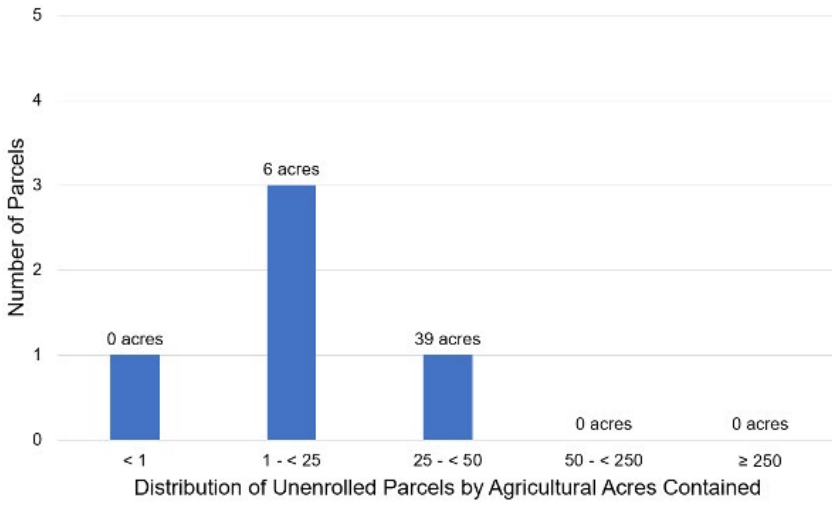
Agricultural Lands in BMAP Area



Enrolled Agricultural Lands in BMAP Area

Enrollment and Response Summary	2020	2020 Percent Enrolled
Total agricultural acres in the BMAP	164	0
Total agricultural acres enrolled	0	
Total irrigated acres	0	0
Total irrigated acres enrolled	4	
Number of NOIs within BMAP	0	
Completed IV site visits	0	

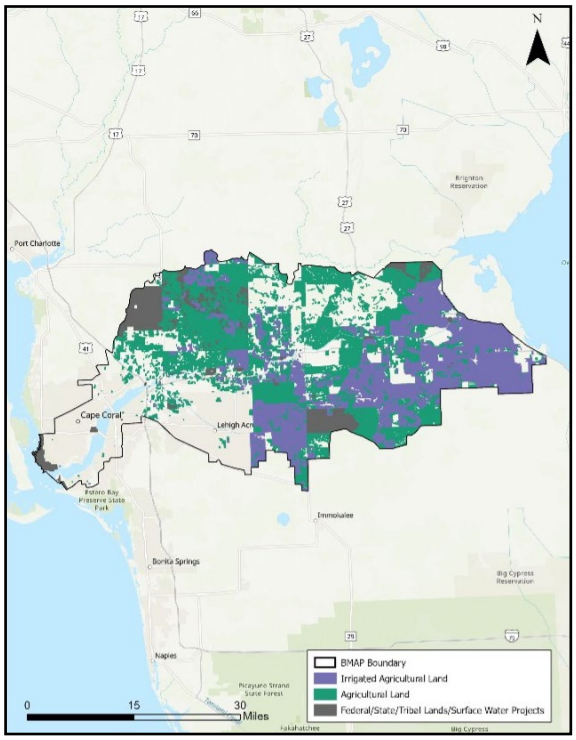
Unenrolled Lands Characterization



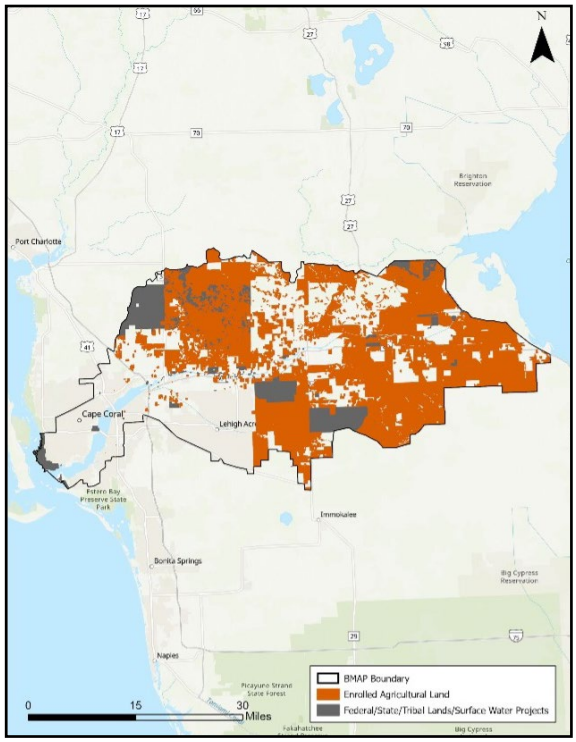
Agricultural Acres Enrolled

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) in the Caloosahatchee Estuary Basin [27]

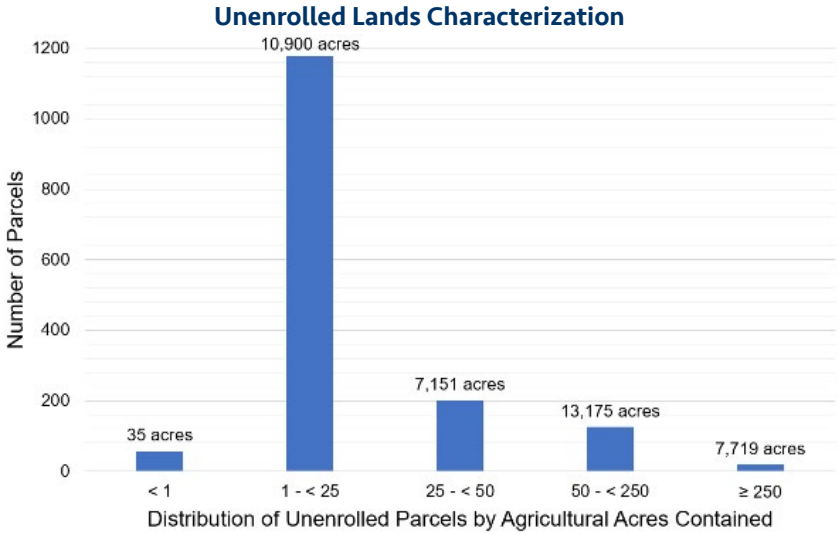


Agricultural Lands in BMAP Area



Enrolled Agricultural Lands in BMAP Area

Enrollment and Response Summary	2020	2020 Percent Enrolled
Total agricultural acres in the BMAP	451,171	84
Total agricultural acres enrolled	378,377	
Total irrigated acres	190,588	94
Total irrigated acres enrolled	178,658	
Number of NOIs within BMAP	478	
Completed IV site visits	41	

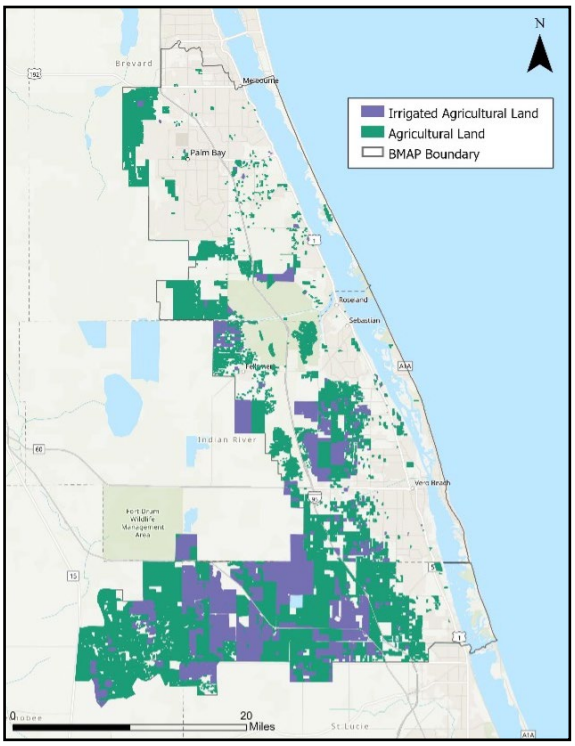


Agricultural Acres Enrolled

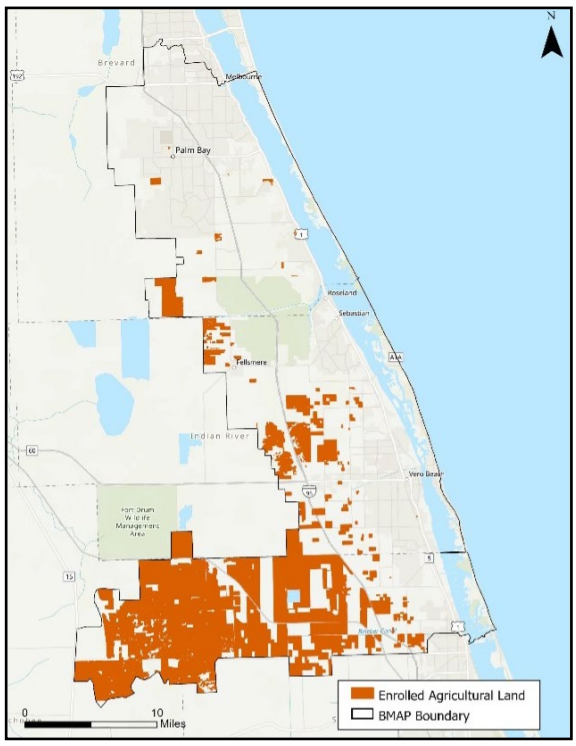
BMP Manuals	Acres
Citrus	61,449
Conservation Plan	43,847
Cow/Calf	96,901
Dairy	1,144
Equine	0
Fruit and Nut	178
Multiple Commodities	76,229
Nursery	667
Poultry	40
Row/Field Crops	96,314
Sod	1,608
TOTAL	378,377

27. Characteristics and metrics for this BMAP are significantly different in this report as the BMAP area was expanded in the 2020 BMAP update. The Federal and State lands identified on the maps in gray areas were initially considered agriculture. These lands are not expected to contain agricultural activities.

Status of Implementation of Agricultural Best Management Practices (BMPs) in the Central Indian River Lagoon Basin



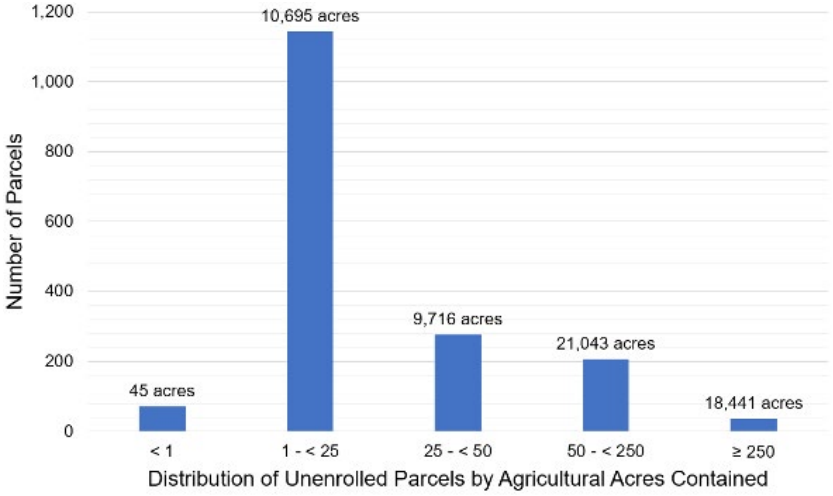
Agricultural Lands in BMAP Area



Enrolled Agricultural Lands in BMAP Area

Enrollment and Response Summary	2020	2020 Percent Enrolled
Total agricultural acres in the BMAP	176,067	57
Total agricultural acres enrolled	99,451	
Total irrigated acres	51,0645	77
Total irrigated acres enrolled	39,524	
Number of NOIs within BMAP	290	
Completed IV site visits	90	

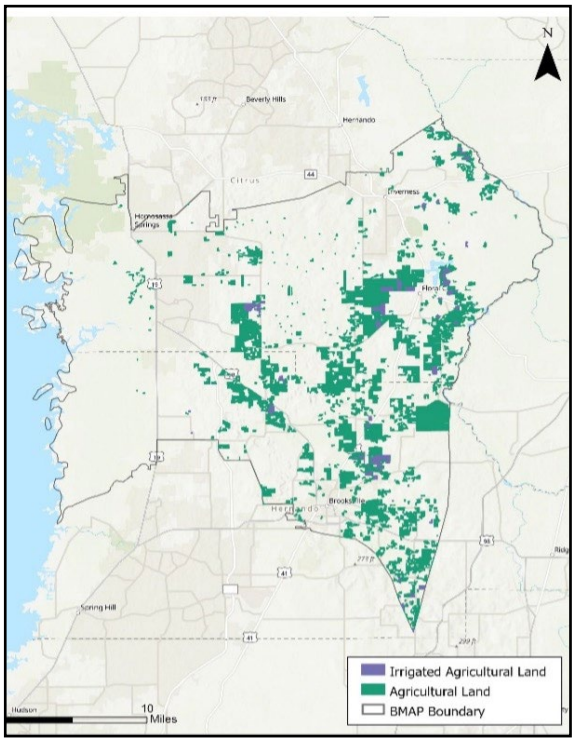
Unenrolled Lands Characterization



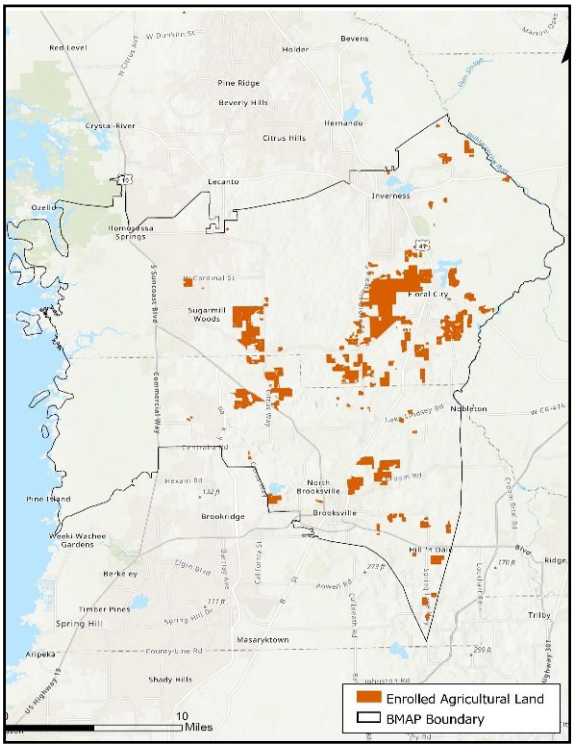
Agricultural Acres Enrolled

BMP Manuals	Acres
Citrus	31,934
Cow/Calf	37,526
Dairy	6,075
Equine	22
Multiple Commodities	4,668
Nursery	508
Row/Field Crops	11,439
Wildlife	7,279
TOTAL	99,451

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



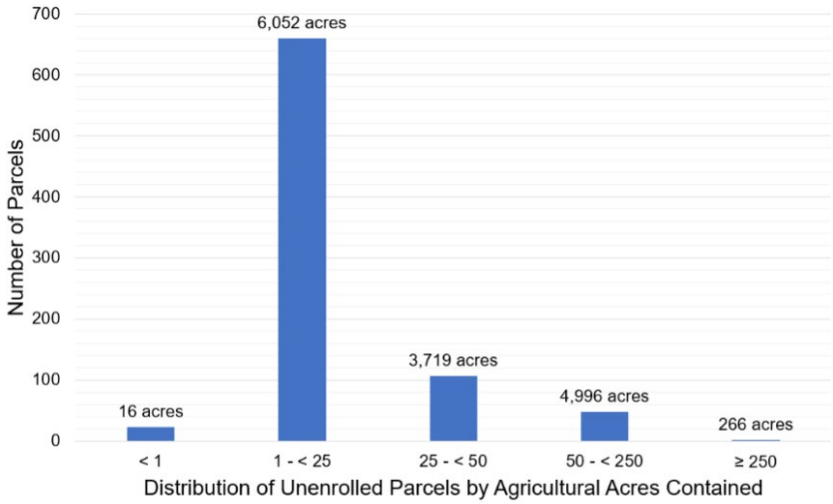
Agricultural Lands in BMAP Area



Enrolled Agricultural Lands in BMAP Area

Enrollment and Response Summary	2020	2020 Percent Enrolled
Total agricultural acres in the BMAP	39,142	38
Total agricultural acres enrolled	14,711	
Total irrigated acres	1,935	74
Total irrigated acres enrolled	1,439	
Number of NOIs within BMAP	106	
Completed IV site visits	33	

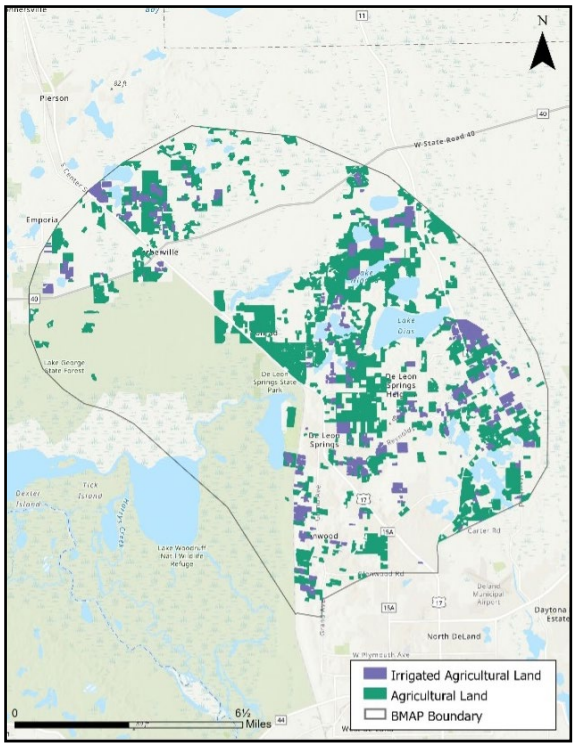
Unenrolled Lands Characterization



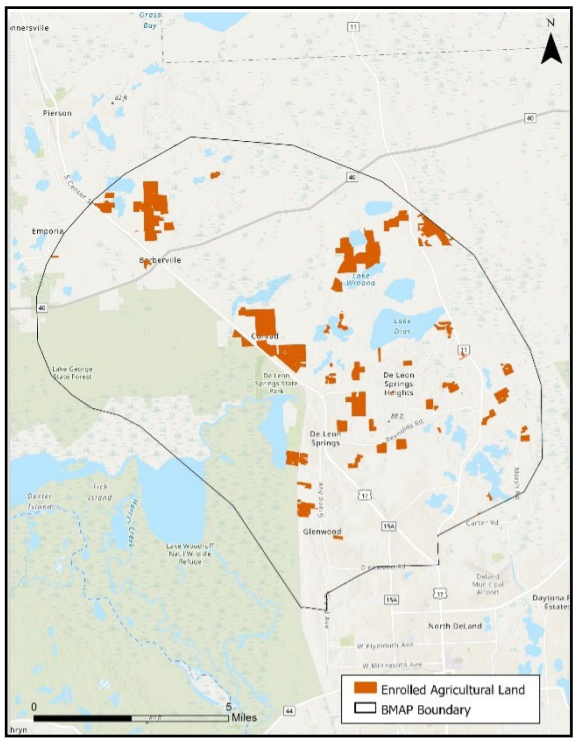
Agricultural Acres Enrolled

BMP Manuals	Acres
Citrus	82
Cow/Calf	10,450
Dairy	260
Equine	20
Fruit & Nut	551
Multiple Commodities	2,059
Nursery	879
Row/Field Crops	410
TOTAL	14,711

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



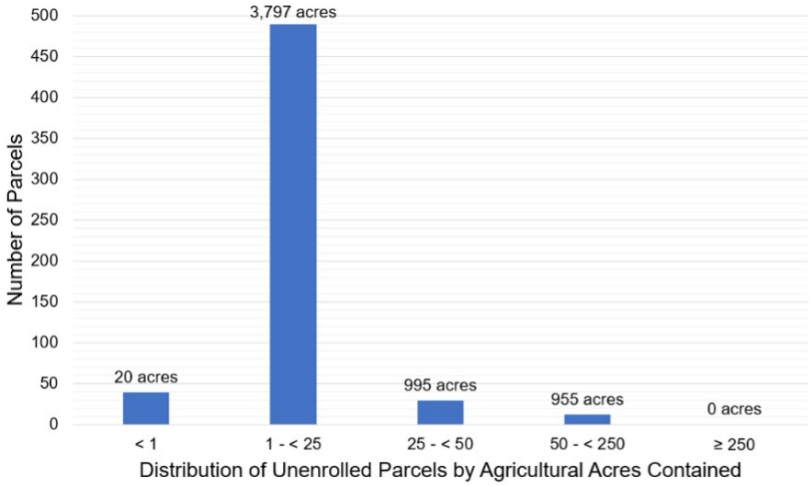
Agricultural Lands in BMAP Area



Enrolled Agricultural Lands in BMAP Area

Enrollment and Response Summary	2020	2020 Percent Enrolled
Total agricultural acres in the BMAP	11,519	24
Total agricultural acres enrolled	2,762	
Total irrigated acres	2,207	39
Total irrigated acres enrolled	863	
Number of NOIs within BMAP	38	
Completed IV site visits	0	

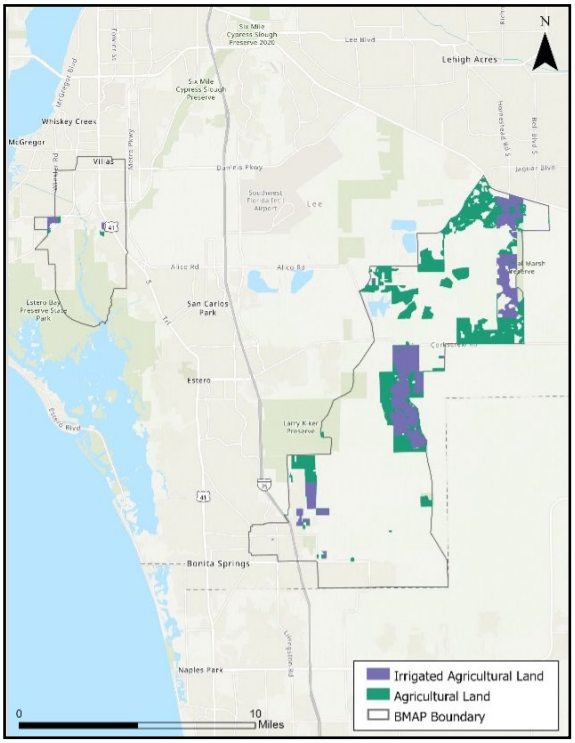
Unenrolled Lands Characterization



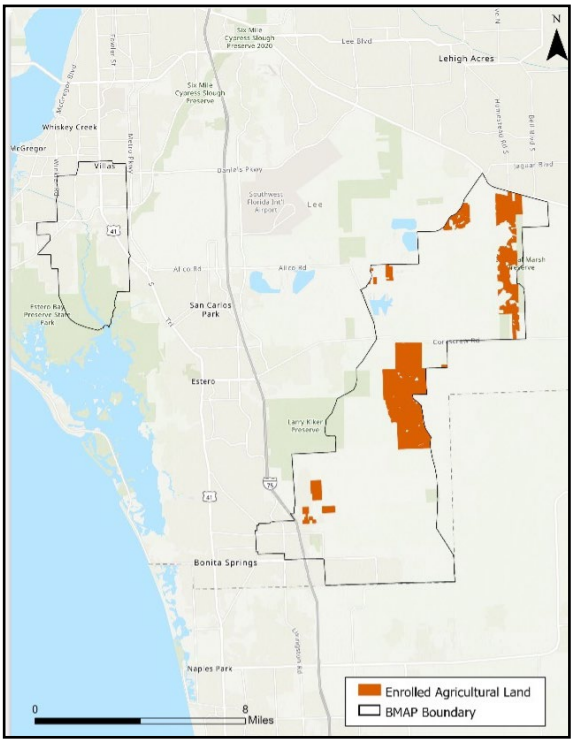
Agricultural Acres Enrolled

BMP Manuals	Acres
Citrus	130
Cow/Calf	1,282
Equine	167
Fruit & Nut	27
Multiple Commodities	0
Nursery	1,137
Row/Field Crops	19
Sod	0
TOTAL	2,762

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



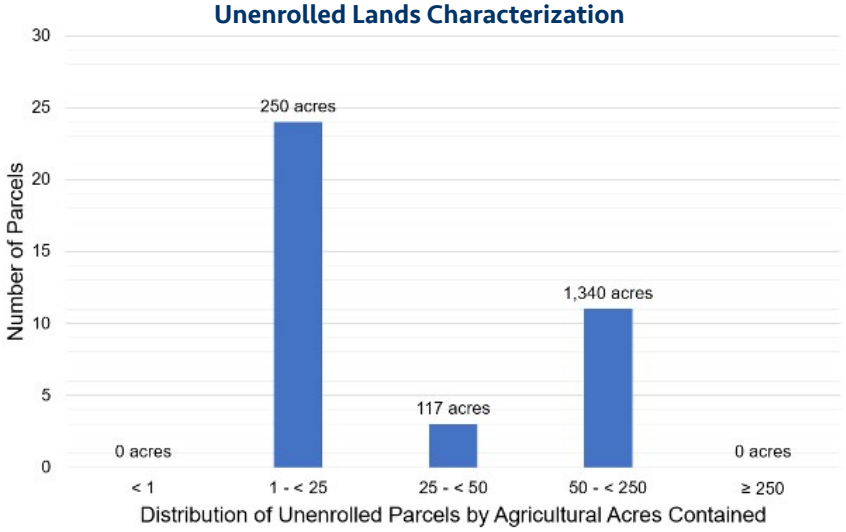
Agricultural Lands in BMAP Area



Enrolled Agricultural Lands in BMAP Area

Enrollment and Response Summary	2020	2020 Percent Enrolled
Total agricultural acres in the BMAP	9,745	57
Total agricultural acres enrolled	5,573	
Total irrigated acres	3,571	95
Total irrigated acres enrolled	3,385	
Number of NOIs within BMAP	18	
Completed IV site visits	0	

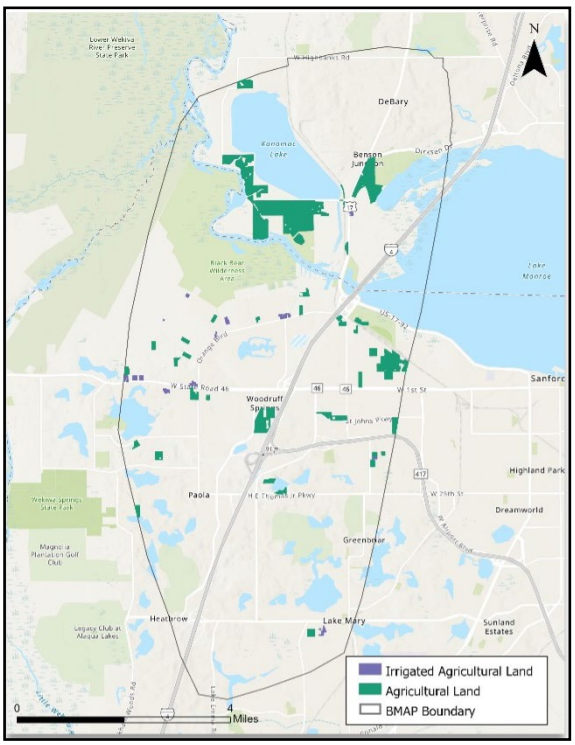
Unenrolled Lands Characterization



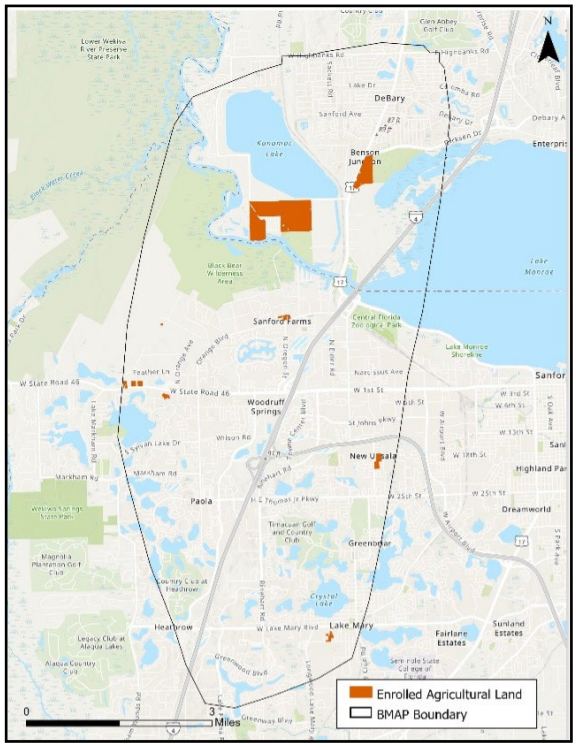
Agricultural Acres Enrolled

BMP Manuals	Acres
Citrus	815
Cow/Calf	78
Equine	0
Fruit & Nut	0
Multiple Commodities	541
Nursery	55
Row/Field Crops	4,084
Sod	0
TOTAL	5,573

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



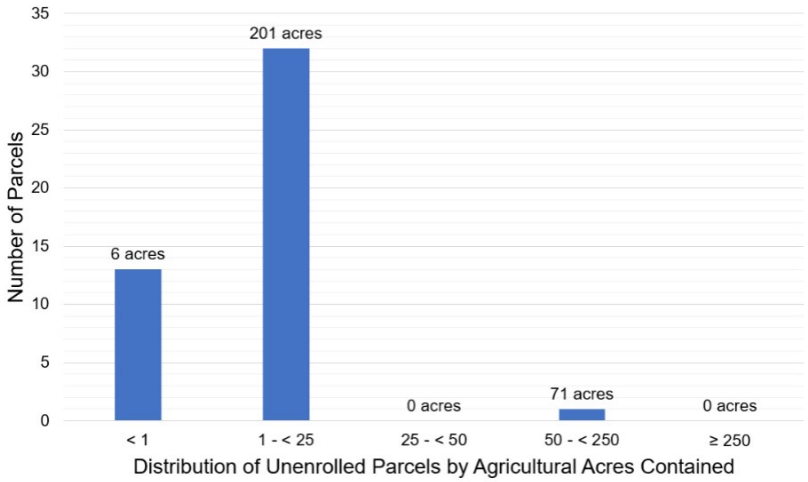
Agricultural Lands in BMAP Area



Enrolled Agricultural Lands in BMAP Area

Enrollment and Response Summary	2020	2020 Percent Enrolled
Total agricultural acres in the BMAP	929	41
Total agricultural acres enrolled	376	
Total irrigated acres	40	14
Total irrigated acres enrolled	25	
Number of NOIs within BMAP	8	
Completed IV site visits	2	

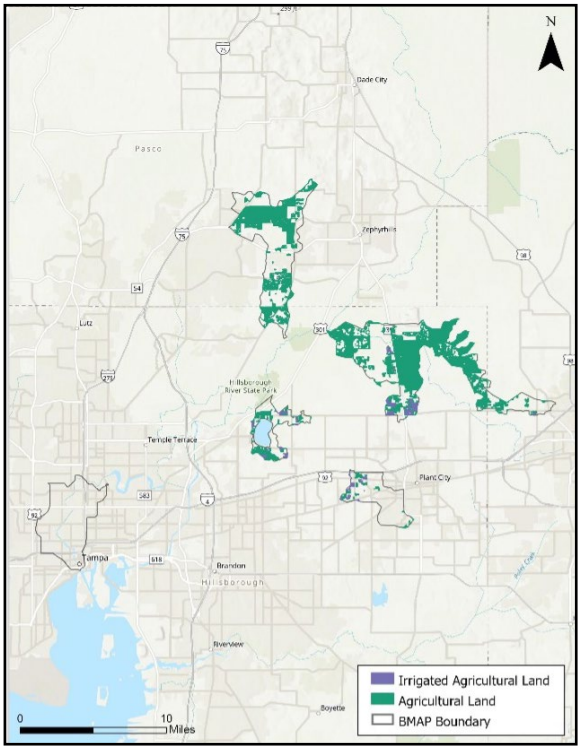
Unenrolled Lands Characterization



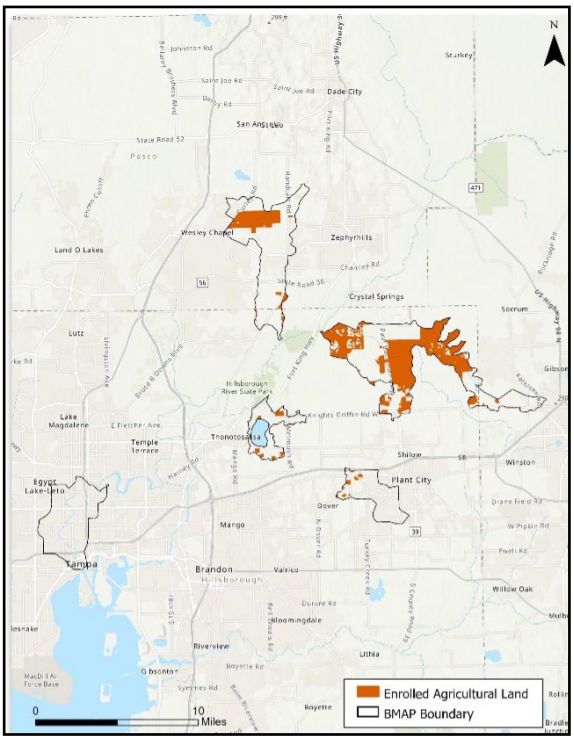
Agricultural Acres Enrolled

BMP Manuals	Acres
Citrus	5
Cow/Calf	342
Equine	0
Fruit & Nut	0
Multiple Commodities	0
Nursery	29
Row/Field Crops	0
Sod	0
TOTAL	376

Status of Implementation of Agricultural Best Management Practices (BMPs) in the Hillsborough River Basin



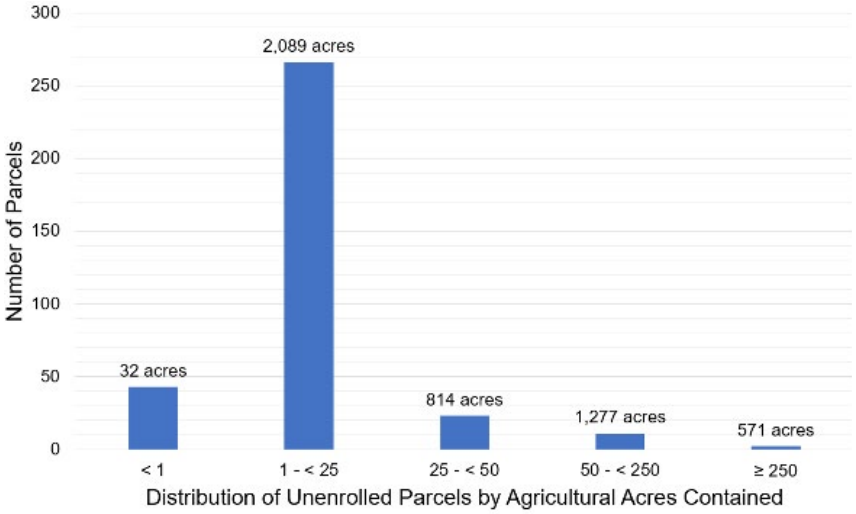
Agricultural Lands in BMAP Area



Enrolled Agricultural Lands in BMAP Area

Enrollment and Response Summary	2020	2020 Percent Enrolled
Total agricultural acres in the BMAP	17,242	62
Total agricultural acres enrolled	10,748	
Total irrigated acres	766	2
Total irrigated acres enrolled	578	
Number of NOIs within BMAP	58	
Completed IV site visits	1	

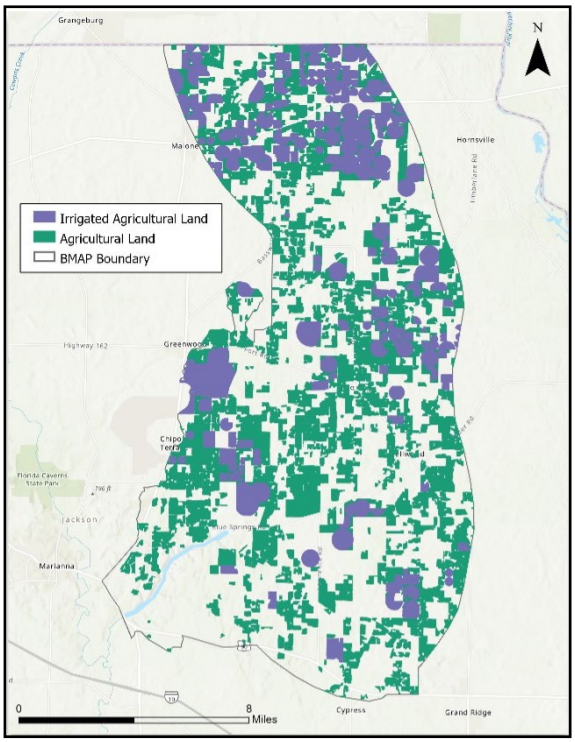
Unenrolled Lands Characterization



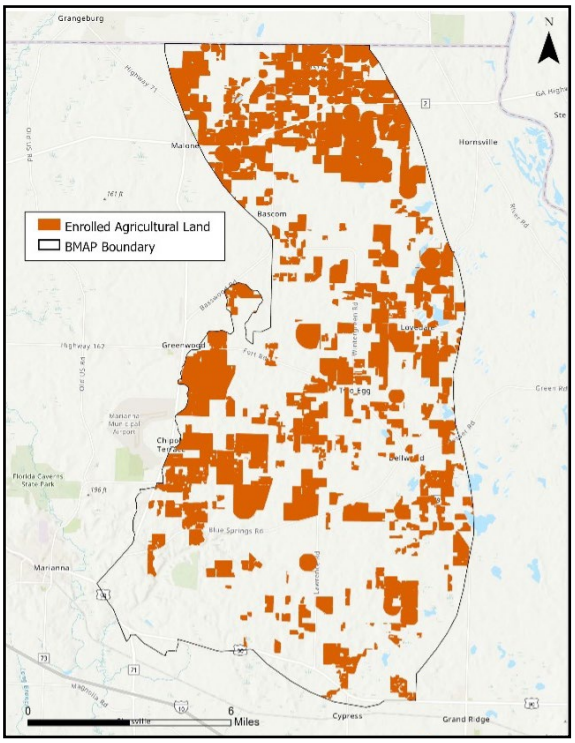
Agricultural Acres Enrolled

BMP Manuals	Acres
Citrus	1
Cow/Calf	9,730
Equine	7
Fruit & Nut	27
Multiple Commodities	239
Nursery	20
Row/Field Crops	724
Sod	0
TOTAL	10,748

Status of Implementation of Agricultural Best Management Practices (BMPs) in the Jackson Blue Spring and Merritts Mill Pond



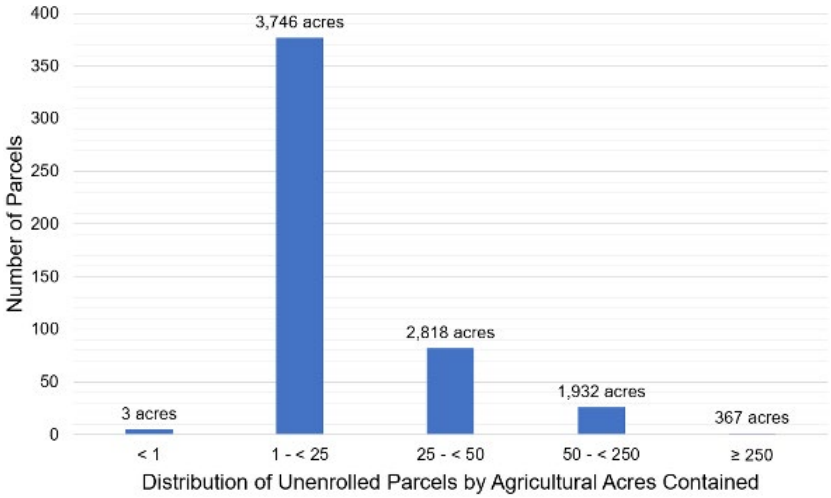
Agricultural Lands in BMAP Area



Enrolled Agricultural Lands in BMAP Area

Enrollment and Response Summary	2020	2020 Percent Enrolled
Total agricultural acres in the BMAP	41,436	67
Total agricultural acres enrolled	27,853	
Total irrigated acres	14,340	94
Total irrigated acres enrolled	13,422	
Number of NOIs within BMAP	229	
Completed IV site visits	82	

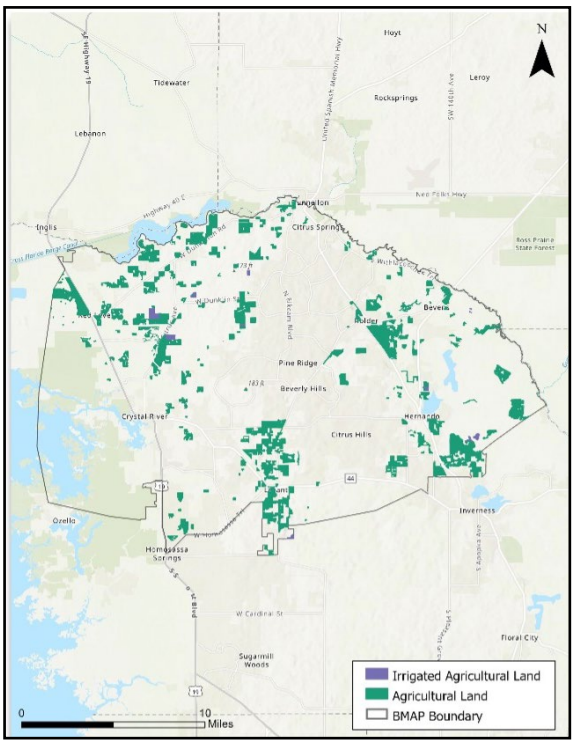
Unenrolled Lands Characterization



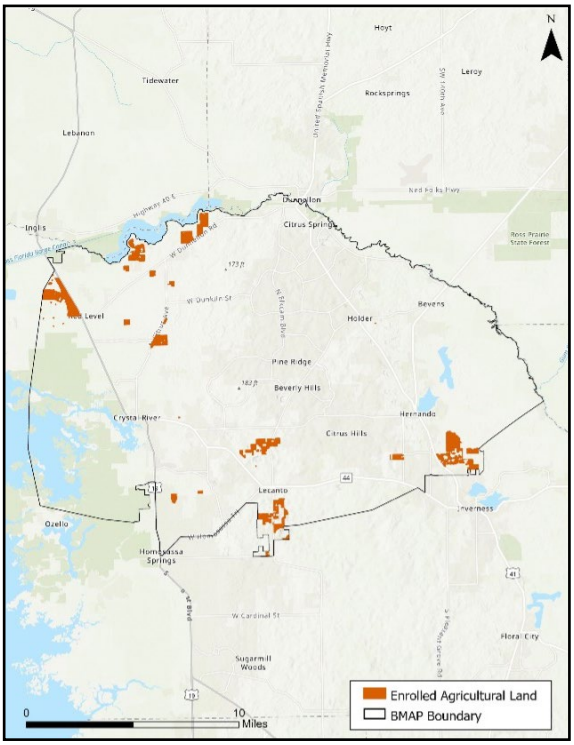
Agricultural Acres Enrolled

BMP Manuals	Acres
Citrus	0
Cow/Calf	2,411
Equine	0
Fruit & Nut	0
Multiple Commodities	2,391
Nursery	0
Row/Field Crops	23,051
Sod	0
TOTAL	27,853

Status of Implementation of Agricultural Best Management Practices (BMPs) in the Kings Bay and Crystal RiverSprings Basin



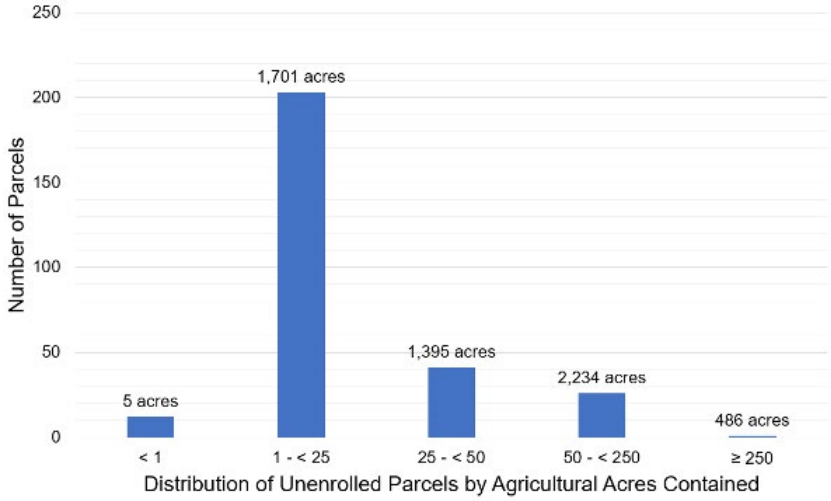
Agricultural Lands in BMAP Area



Enrolled Agricultural Lands in BMAP Area

Enrollment and Response Summary	2020	2020 Percent Enrolled
Total agricultural acres in the BMAP	13,542	25
Total agricultural acres enrolled	3,436	
Total irrigated acres	331	27
Total irrigated acres enrolled	88	
Number of NOIs within BMAP	35	
Completed IV site visits	6	

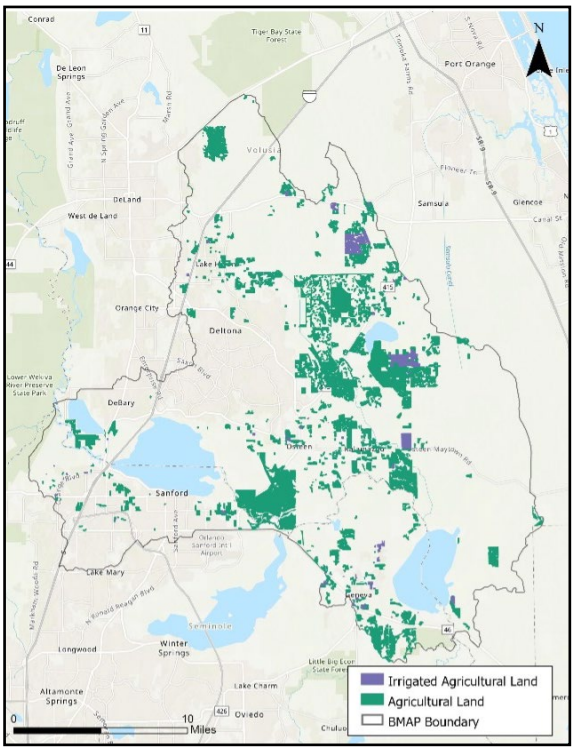
Unenrolled Lands Characterization



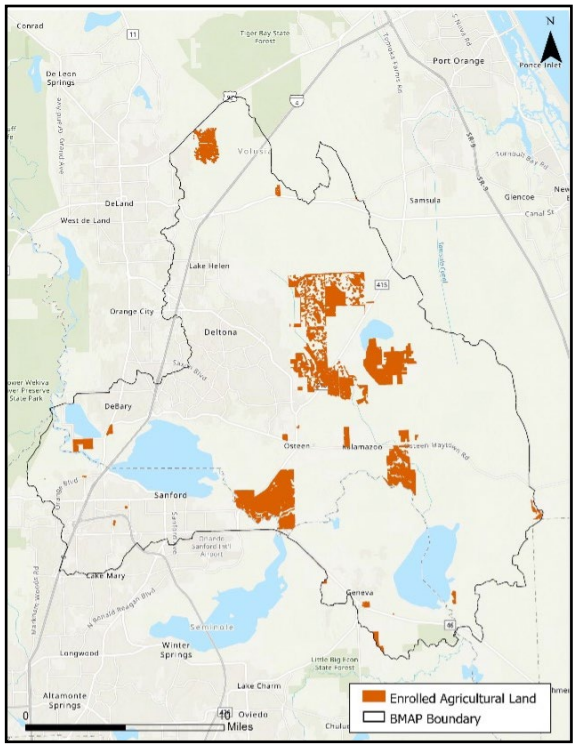
Agricultural Acres Enrolled

BMP Manuals	Acres
Citrus	0
Cow/Calf	2,138
Equine	0
Fruit & Nut	3
Multiple Commodities	682
Nursery	1
Row/Field Crops	612
Sod	0
TOTAL	3,436

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



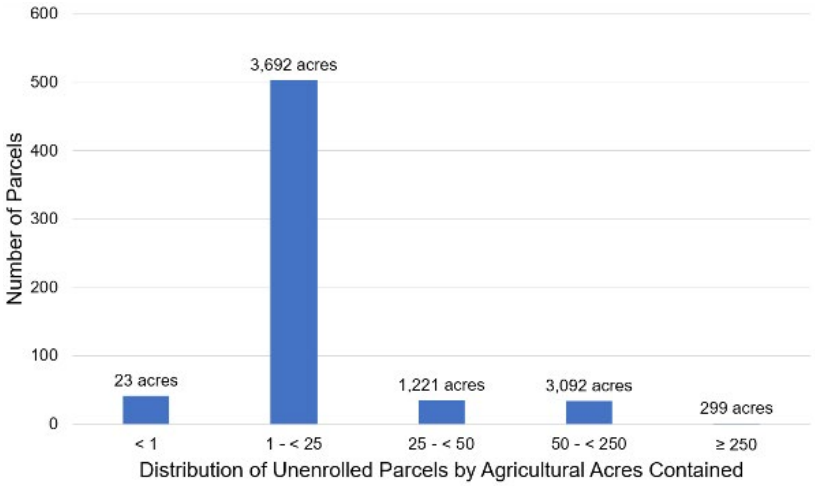
Agricultural Lands in BMAP Area



Enrolled Agricultural Lands in BMAP Area

Enrollment and Response Summary	2020	2020 Percent Enrolled
Total agricultural acres in the BMAP	26,058	48
Total agricultural acres enrolled	12,491	
Total irrigated acres	1,621	47
Total irrigated acres enrolled	755	
Number of NOIs within BMAP	29	
Completed IV site visits	4	

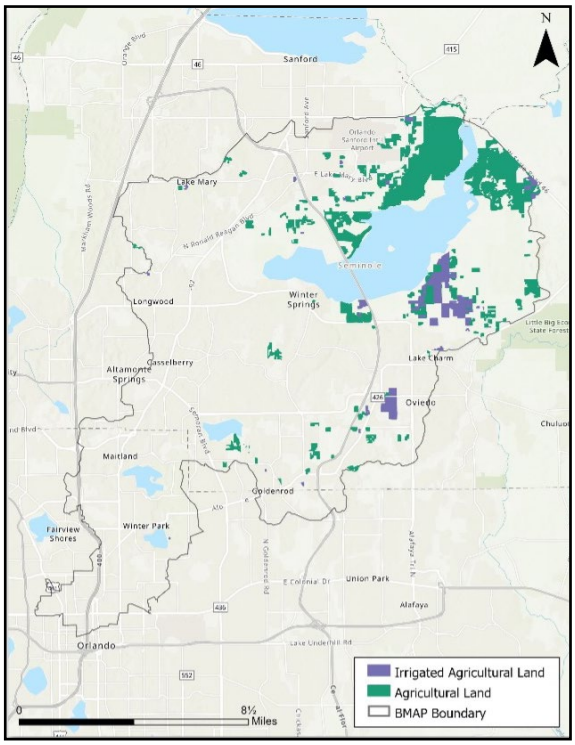
Unenrolled Lands Characterization



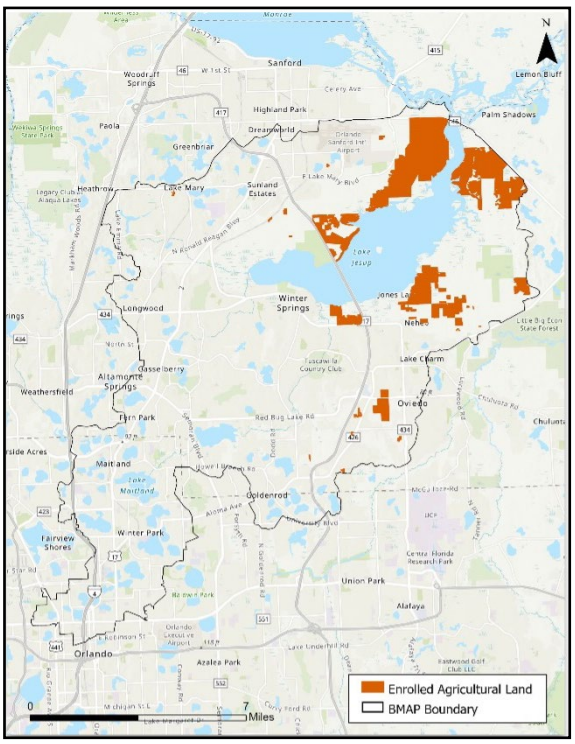
Agricultural Acres Enrolled

BMP Manuals	Acres
Citrus	184
Cow/Calf	11,902
Equine	7
Fruit & Nut	0
Multiple Commodities	0
Nursery	240
Row/Field Crops	158
Sod	0
TOTAL	12,491

Status of Implementation of Agricultural Best Management Practices (BMPs) in the Lake Jesup Basin



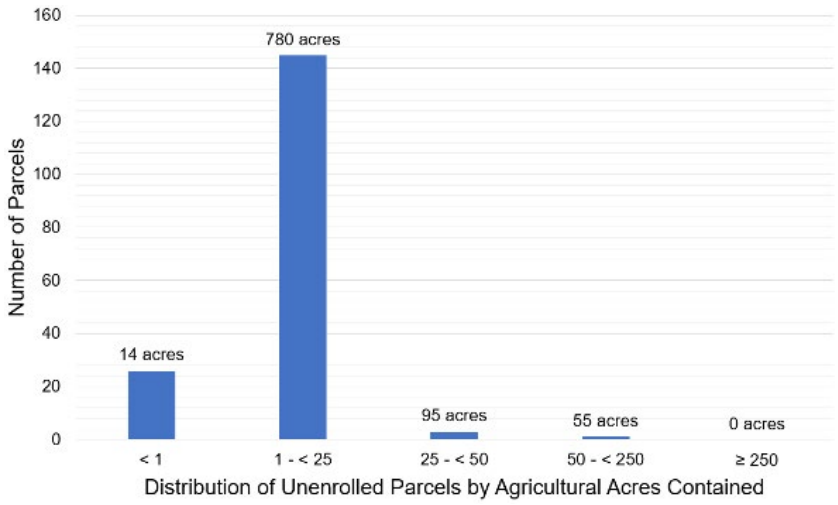
Agricultural Lands in BMAP Area



Enrolled Agricultural Lands in BMAP Area

Enrollment and Response Summary	2020	2020 Percent Enrolled
Total agricultural acres in the BMAP	7,977	72
Total agricultural acres enrolled	5,723	
Total irrigated acres	1,218	77
Total irrigated acres enrolled	940	
Number of NOIs within BMAP	49	
Completed IV site visits	14	

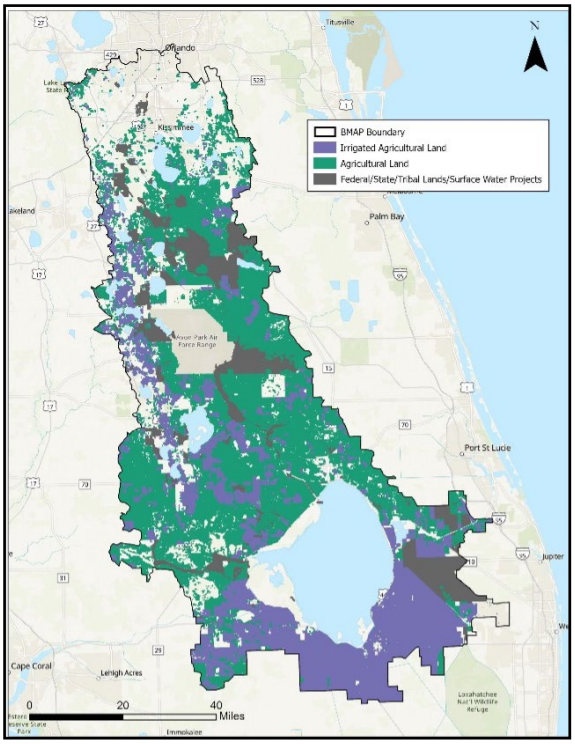
Unenrolled Lands Characterization



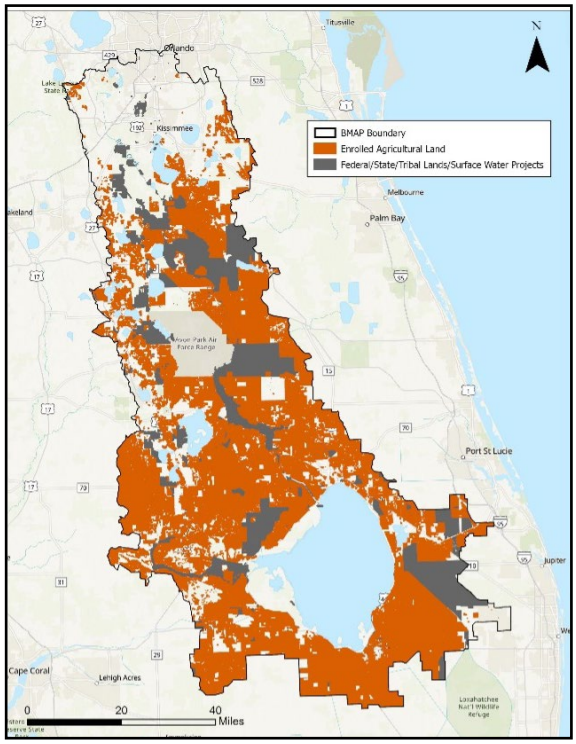
Agricultural Acres Enrolled

BMP Manuals	Acres
Citrus	200
Cow/Calf	4,406
Equine	12
Multiple Commodities	183
Nursery	695
Row/Field Crops	18
Sod	209
Sod	0
TOTAL	5,723

Status of Implementation of Agricultural Best Management Practices (BMPs) in the Lake Okeechobee Basin



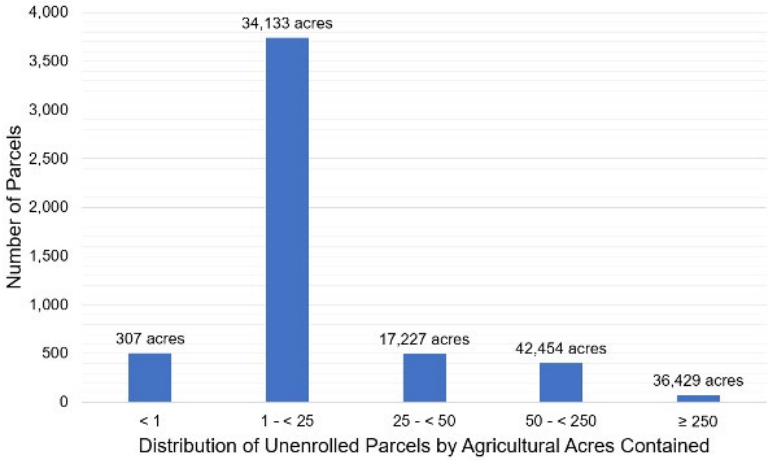
Agricultural Lands in BMAP Area



Enrolled Agricultural Lands in BMAP Area

Enrollment and Response Summary	2020	2020 Percent Enrolled
Total agricultural acres in the BMAP	1,841,433	85
Total agricultural acres enrolled	1,569,697	
Total irrigated acres	671,681	93
Total irrigated acres enrolled	626,176	
Number of NOIs within BMAP	2,631	
Completed IV site visits	225	

Unenrolled Lands Characterization

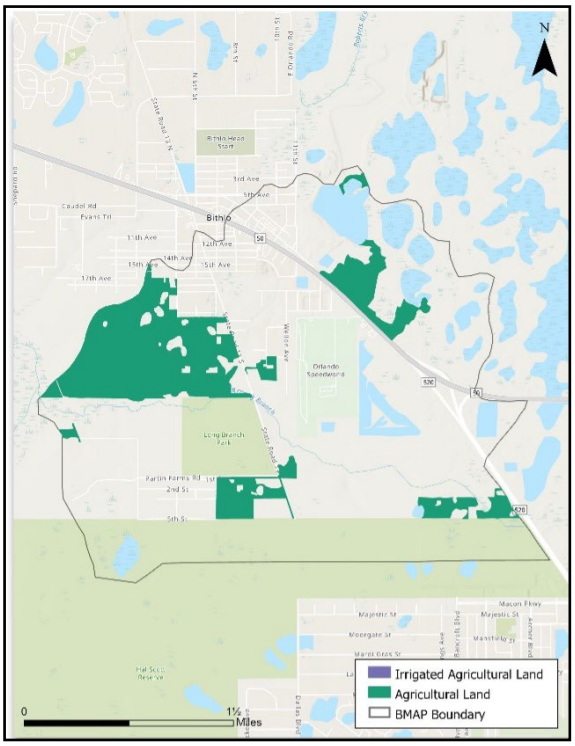


Agricultural Acres Enrolled

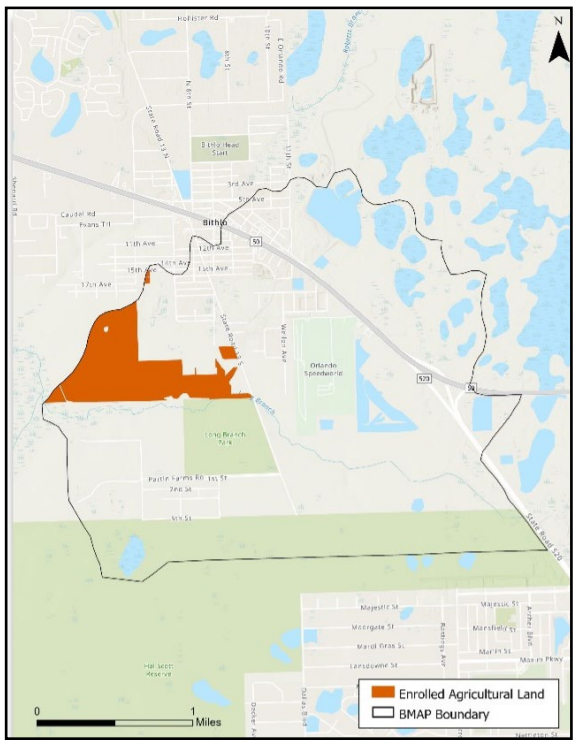
BMP Manuals	Acres
Citrus	125,947
Conservation Plan	160,198
Cow/Calf	686,304
Dairy	20,252
Equine	461
Fruit & Nut	851
LOPP	20,995
Multiple Commodities	114,148
Nursery	3,264
Poultry	119
Row/Field Crops	419,523
Sod	17,635
TOTAL	1,569,697

Completed Implementation Verification site visits values do not include NOIs operating under South Florida Water Management District (SFWMD) permits within the EAA/C139 basins. For those NOIs, SFWMD reports that none of the permittees have been determined to be out of compliance with their permits. (Personal communication, February 8, 2021). The Federal and State lands identified on the maps in gray areas were initially considered agriculture. These lands are not expected to contain agricultural activities.

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



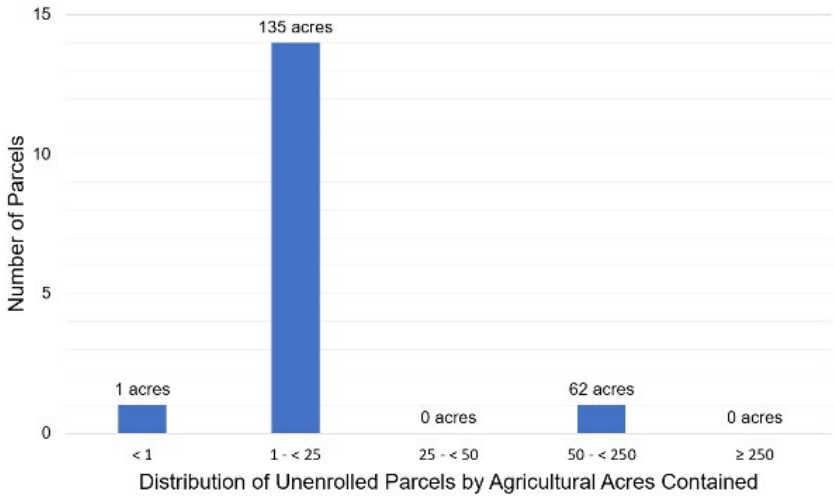
Agricultural Lands in BMAP Area



Enrolled Agricultural Lands in BMAP Area

Enrollment and Response Summary	2020	2020 Percent Enrolled
Total agricultural acres in the BMAP	524	44
Total agricultural acres enrolled	229	
Total irrigated acres	0	0
Total irrigated acres enrolled	0	
Number of NOIs within BMAP	2	
Completed IV site visits	0	

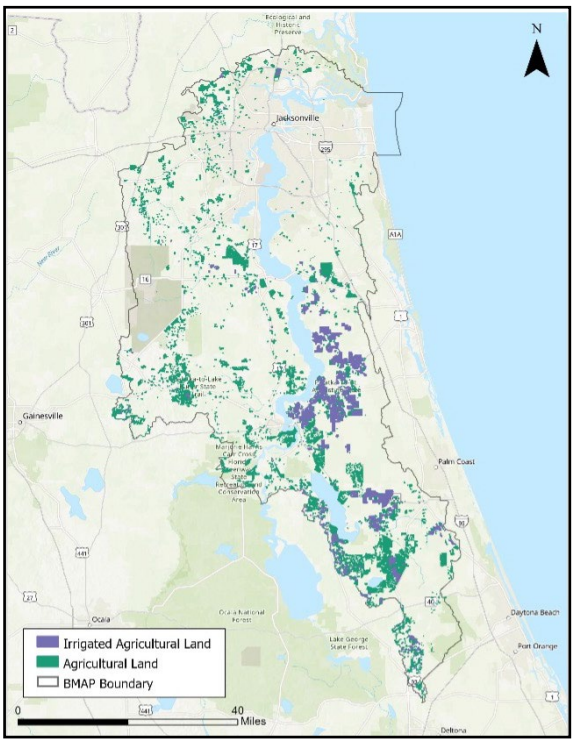
Unenrolled Lands Characterization



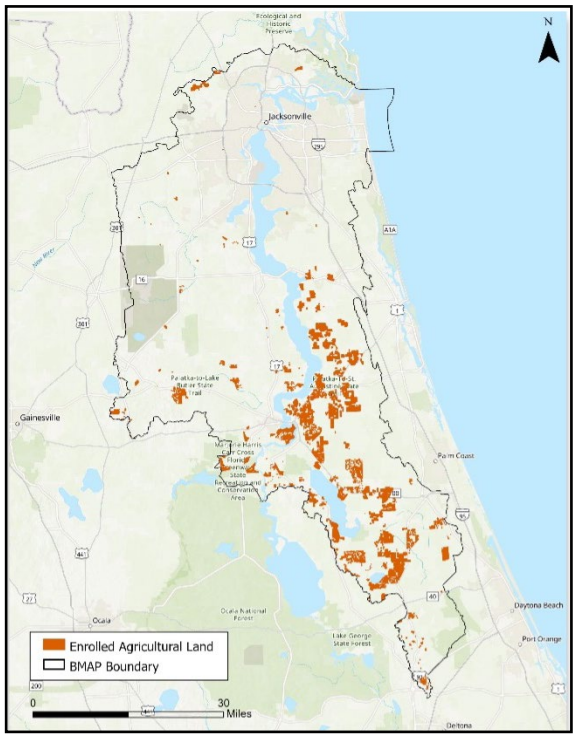
Agricultural Acres Enrolled

BMP Manuals	Acres
Citrus	0
Cow/Calf	229
Equine	0
Fruit & Nut	0
Multiple Commodities	0
Nursery	0
Row/Field Crops	0
Sod	0
TOTAL	229

Status of Implementation of Agricultural Best Management Practices (BMPs) in the Lower St. Johns River Basin Main Stem



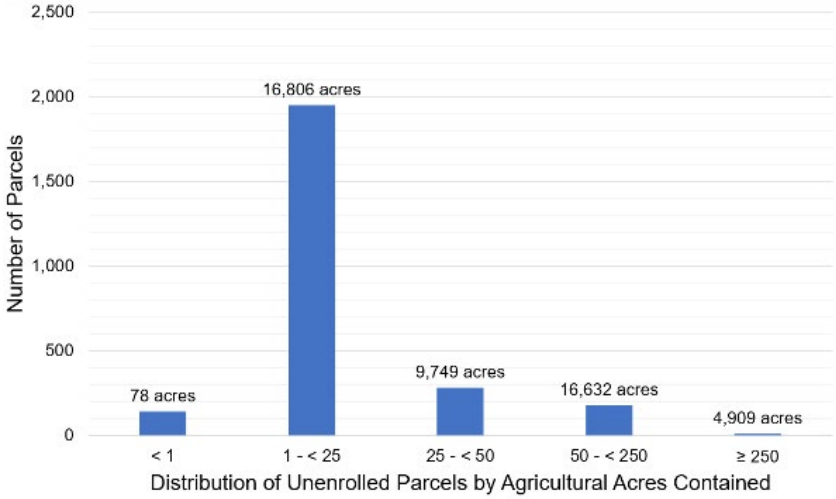
Agricultural Lands in BMAP Area



Enrolled Agricultural Lands in BMAP Area

Enrollment and Response Summary	2020	2020 Percent Enrolled
Total agricultural acres in the BMAP	151,633	47
Total agricultural acres enrolled	70,896	
Total irrigated acres	44,155	71
Total irrigated acres enrolled	31,195	
Number of NOIs within BMAP	309	
Completed IV site visits	60	

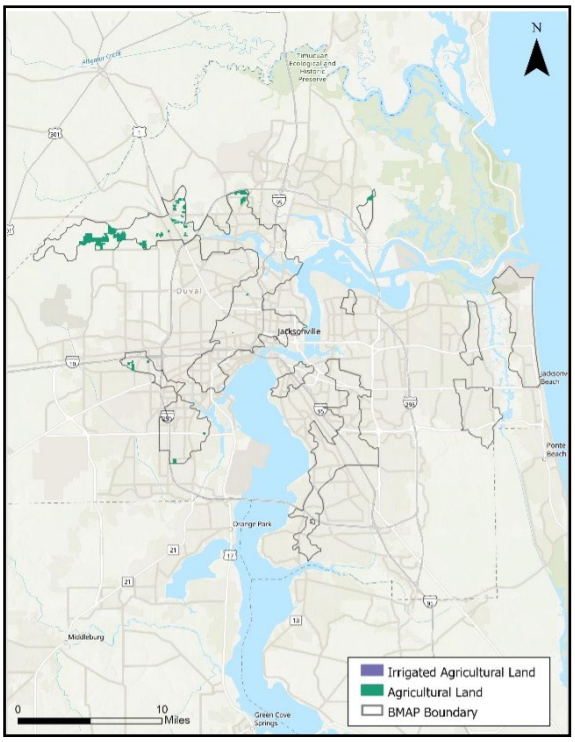
Unenrolled Lands Characterization



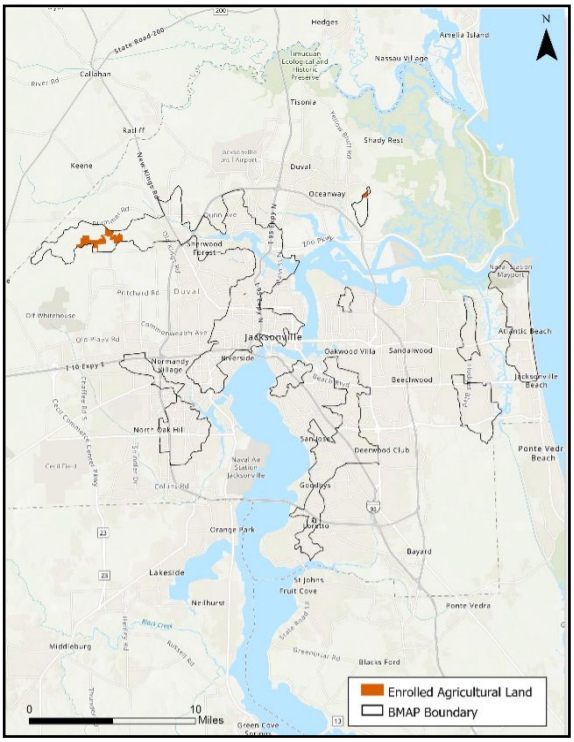
Agricultural Acres Enrolled

BMP Manuals	Acres
Citrus	94
Cow/Calf	32,782
Equine	119
Fruit & Nut	559
Multiple Commodities	6,566
Nursery	2,630
Row/Field Crops	24,766
Sod	3,380
TOTAL	70,896

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



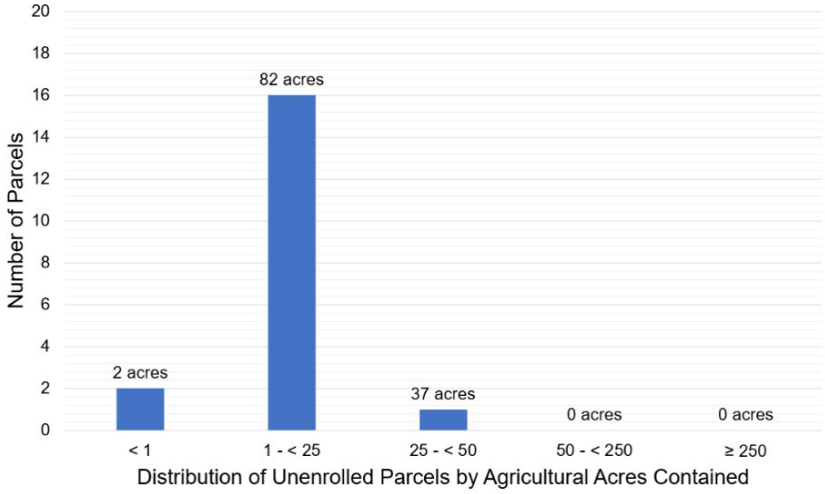
Agricultural Lands in BMAP Area



Enrolled Agricultural Lands in BMAP Area

Enrollment and Response Summary	2020	2020 Percent Enrolled
Total agricultural acres in the BMAP	1,312	58
Total agricultural acres enrolled	762	
Total irrigated acres	0	0
Total irrigated acres enrolled	0	
Number of NOIs within BMAP	4	
Completed IV site visits	0	

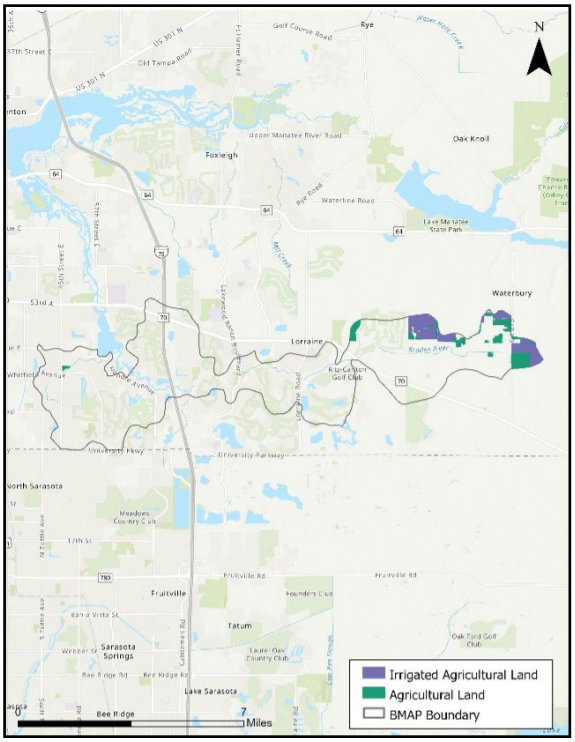
Unenrolled Lands Characterization



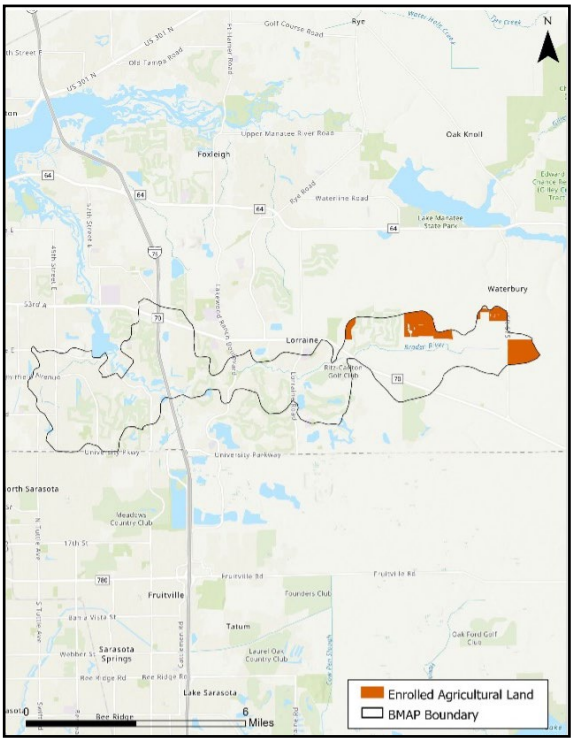
Agricultural Acres Enrolled

BMP Manuals	Acres
Citrus	0
Cow/Calf	413
Equine	0
Fruit & Nut	0
Multiple Commodities	312
Nursery	0
Row/Field Crops	37
Sod	0
TOTAL	762

Status of Implementation of Agricultural Best Management Practices (BMPs) in the Manatee River Basin



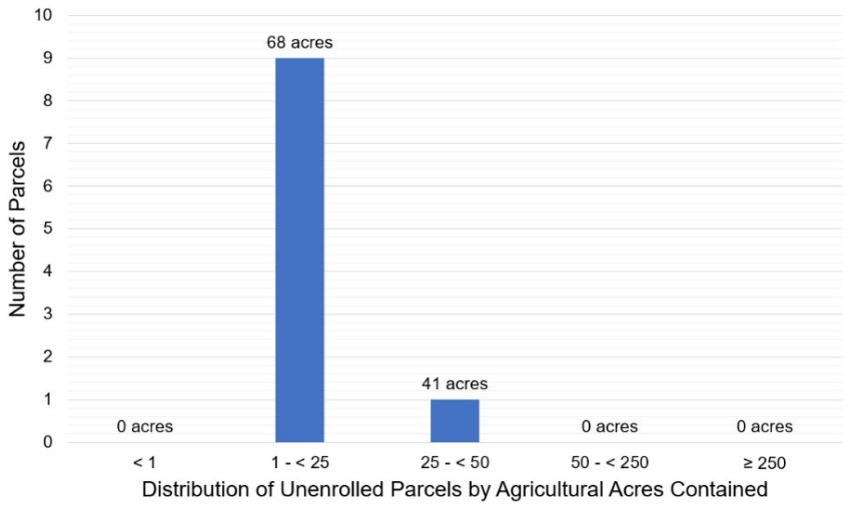
Agricultural Lands in BMAP Area



Enrolled Agricultural Lands in BMAP Area

Enrollment and Response Summary	2020	2020 Percent Enrolled
Total agricultural acres in the BMAP	998	83
Total agricultural acres enrolled	828	
Total irrigated acres	569	94
Total irrigated acres enrolled	533	
Number of NOIs within BMAP	5	
Completed IV site visits	0	

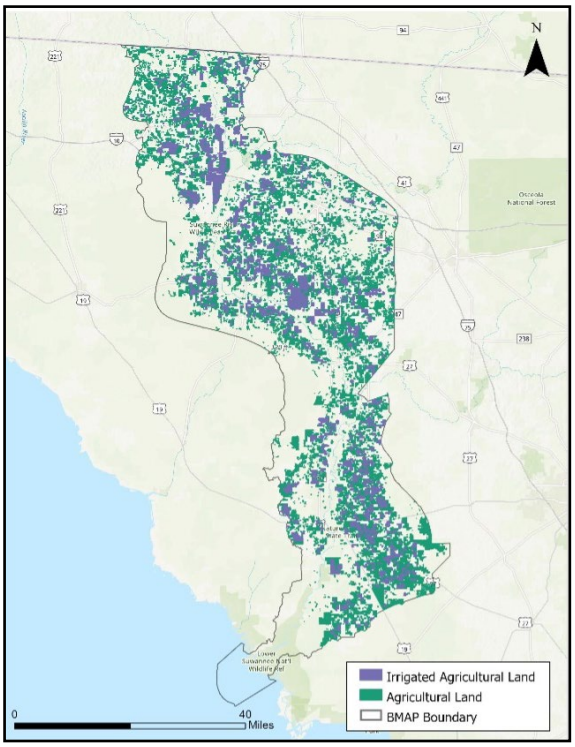
Unenrolled Lands Characterization



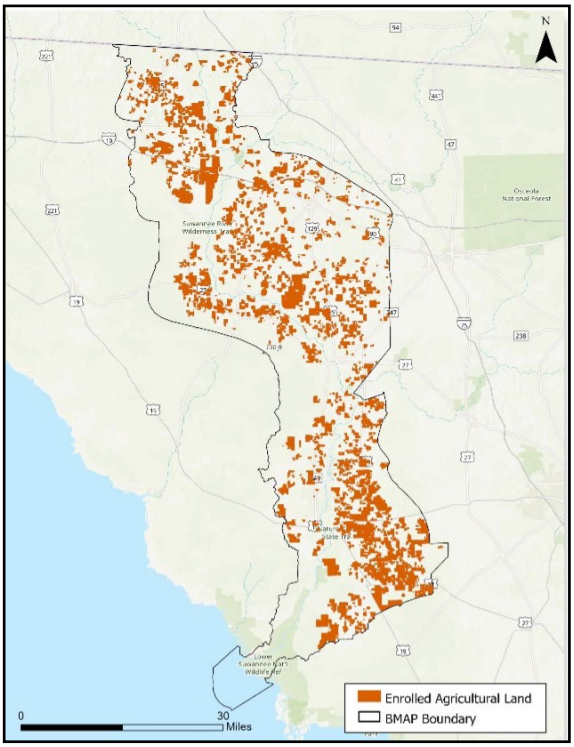
Agricultural Acres Enrolled

BMP Manuals	Acres
Citrus	0
Cow/Calf	364
Equine	0
Fruit & Nut	0
Multiple Commodities	3495
Nursery	0
Row/Field Crops	115
Sod	56
TOTAL	828

Status of Implementation of Agricultural Best Management Practices (BMPs) in the Middle and Lower Suwannee River Basin



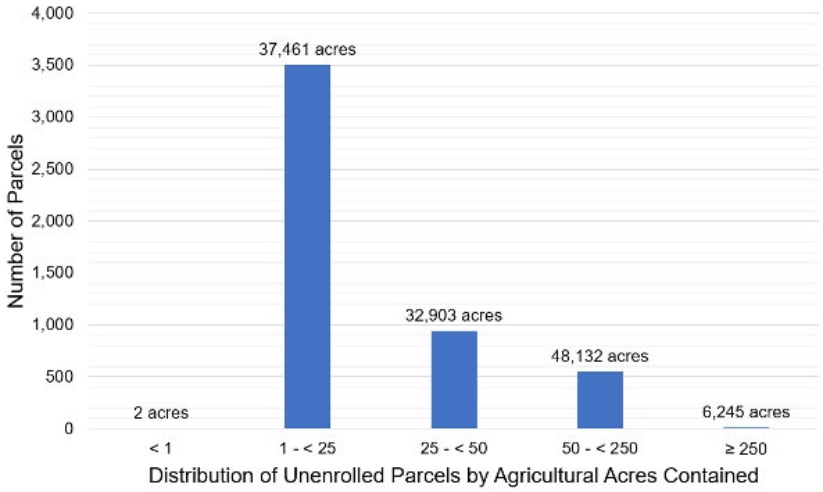
Agricultural Lands in BMAP Area



Enrolled Agricultural Lands in BMAP Area

Enrollment and Response Summary	2020	2020 Percent Enrolled
Total agricultural acres in the BMAP	385,024	55
Total agricultural acres enrolled	211,739	
Total irrigated acres	107,840	84
Total irrigated acres enrolled	90,420	
Number of NOIs within BMAP	1,354	
Completed IV site visits	808	

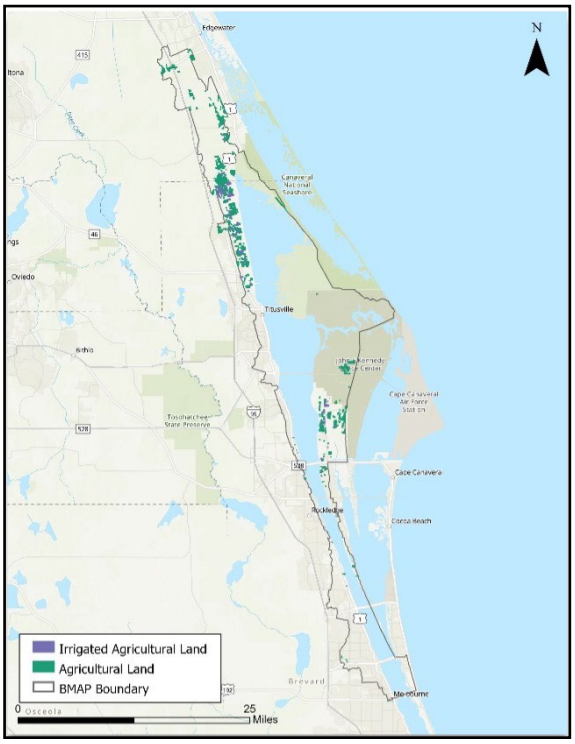
Unenrolled Lands Characterization



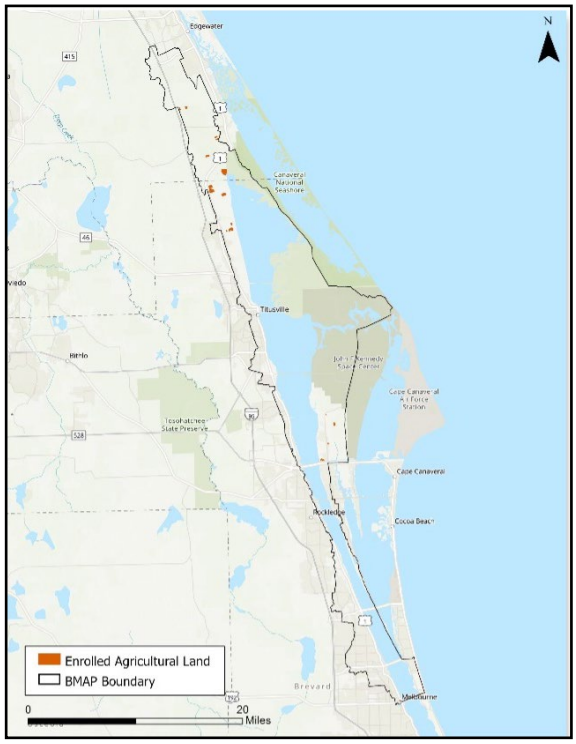
Agricultural Acres Enrolled

BMP Manuals	Acres
Citrus	0
Cow/Calf	34,135
Dairy	20,971
Equine	36
Fruit & Nut	701
Multiple Commodities	58,956
Nursery	141
Poultry	333
Row/Field Crops	96,079
Sod	387
TOTAL	211,739

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



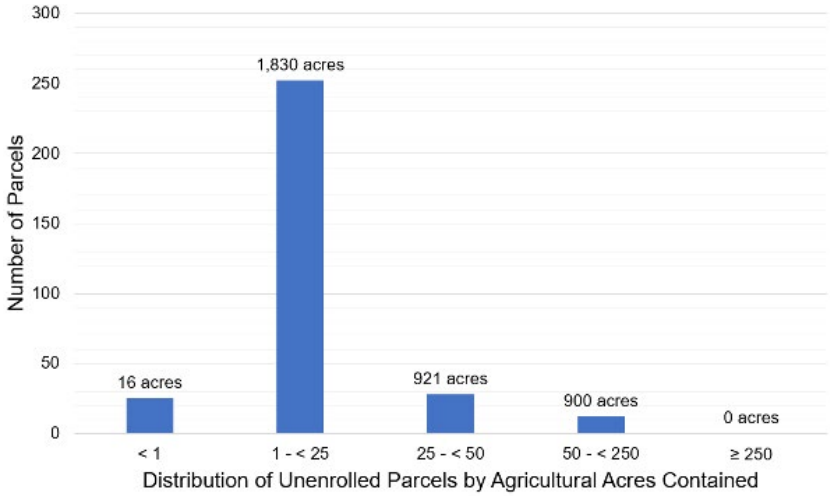
Agricultural Lands in BMAP Area



Enrolled Agricultural Lands in BMAP Area

Enrollment and Response Summary	2020	2020 Percent Enrolled
Total agricultural acres in the BMAP	7,260	6
Total agricultural acres enrolled	409	
Total irrigated acres	903	18
Total irrigated acres enrolled	167	
Number of NOIs within BMAP	20	
Completed IV site visits	1	

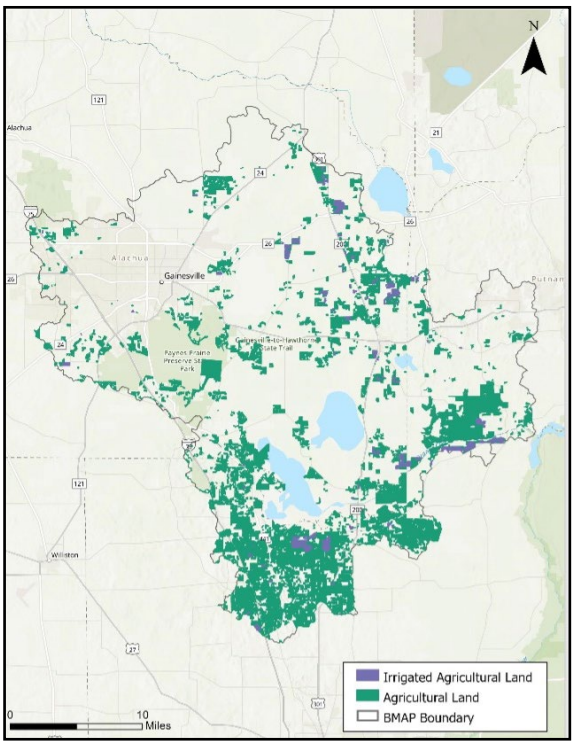
Unenrolled Lands Characterization



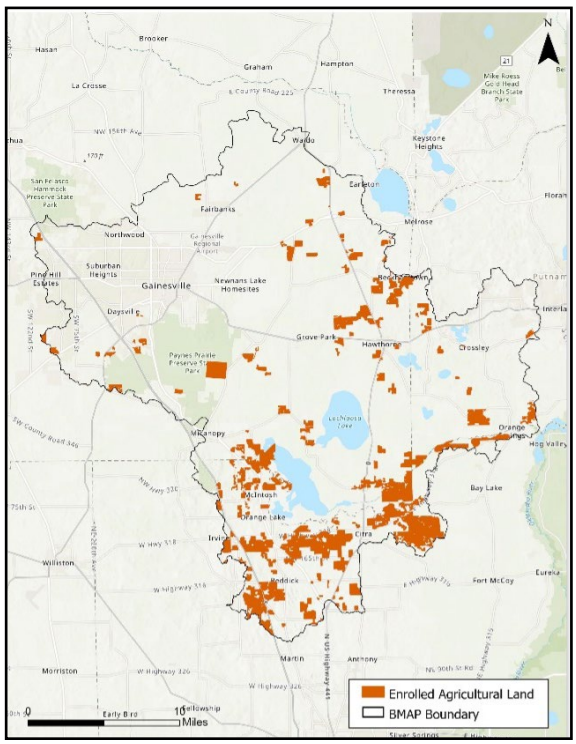
Agricultural Acres Enrolled

BMP Manuals	Acres
Citrus	252
Cow/Calf	113
Equine	0
Fruit & Nut	34
Multiple Commodities	0
Nursery	10
Row/Field Crops	0
Sod	0
TOTAL	409

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



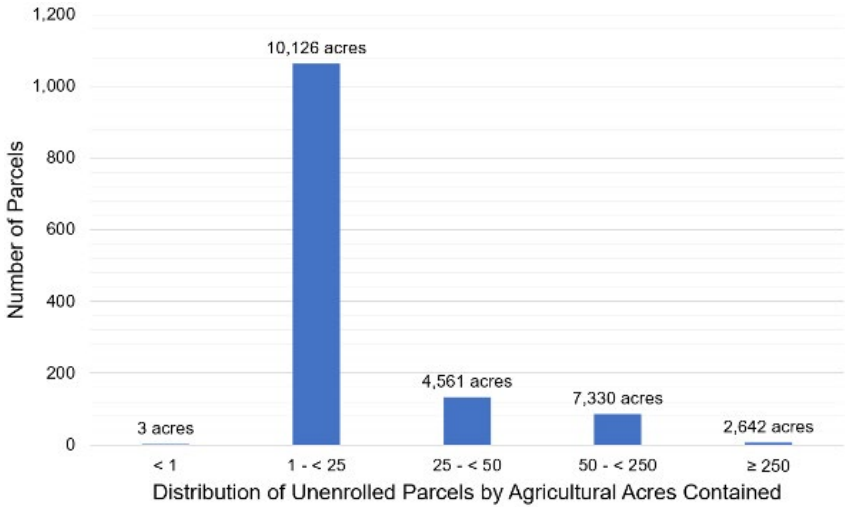
Agricultural Lands in BMAP Area



Enrolled Agricultural Lands in BMAP Area

Enrollment and Response Summary	2020	2020 Percent Enrolled
Total agricultural acres in the BMAP	68,389	41
Total agricultural acres enrolled	27,789	
Total irrigated acres	3,655	77
Total irrigated acres enrolled	2,824	
Number of NOIs within BMAP	214	
Completed IV site visits	37	

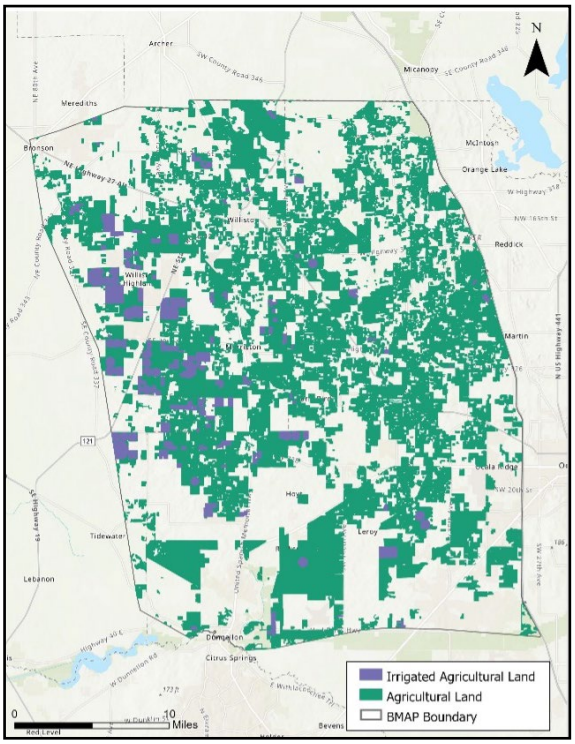
Unenrolled Lands Characterization



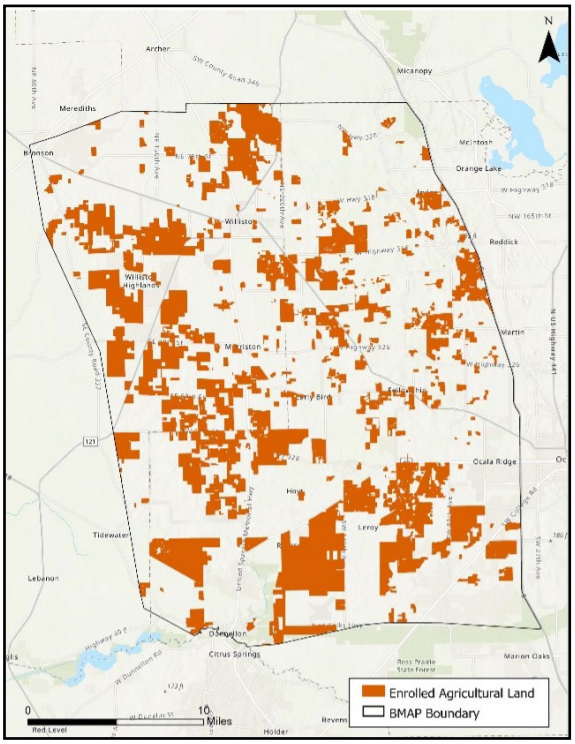
Agricultural Acres Enrolled

BMP Manuals	Acres
Citrus	0
Cow/Calf	15,451
Dairy	79
Equine	2,782
Fruit & Nut	1,397
Multiple Commodities	4,559
Nursery	43
Row/Field Crops	3,475
Sod	0
TOTAL	27,789

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



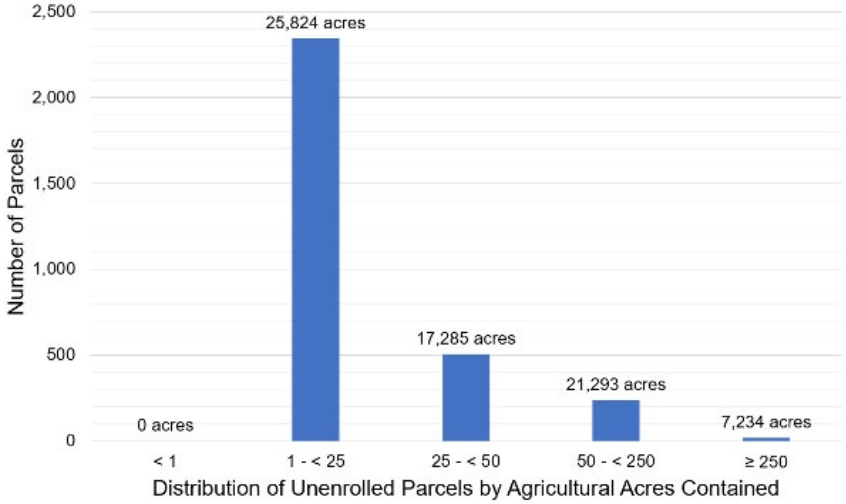
Agricultural Lands in BMAP Area



Enrolled Agricultural Lands in BMAP Area

Enrollment and Response Summary	2020	2020 Percent Enrolled
Total agricultural acres in the BMAP	180,537	51
Total agricultural acres enrolled	91,988	
Total irrigated acres	12,924	87
Total irrigated acres enrolled	11,180	
Number of NOIs within BMAP	487	
Completed IV site visits	174	

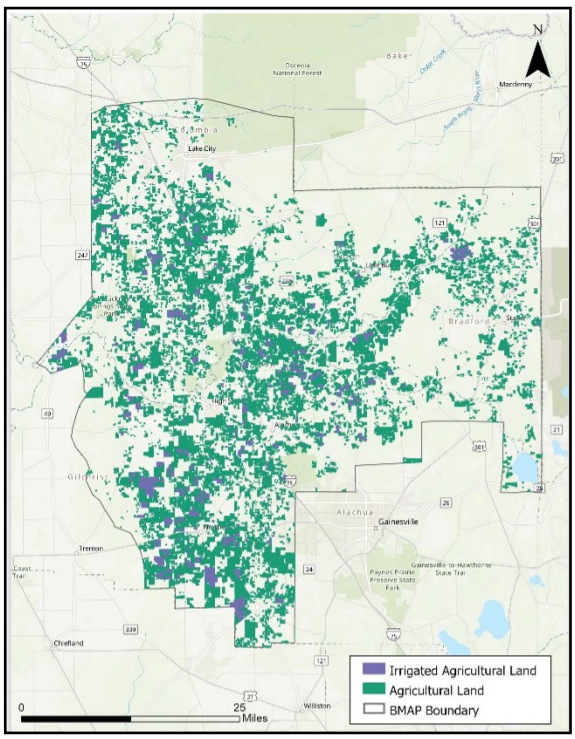
Unenrolled Lands Characterization



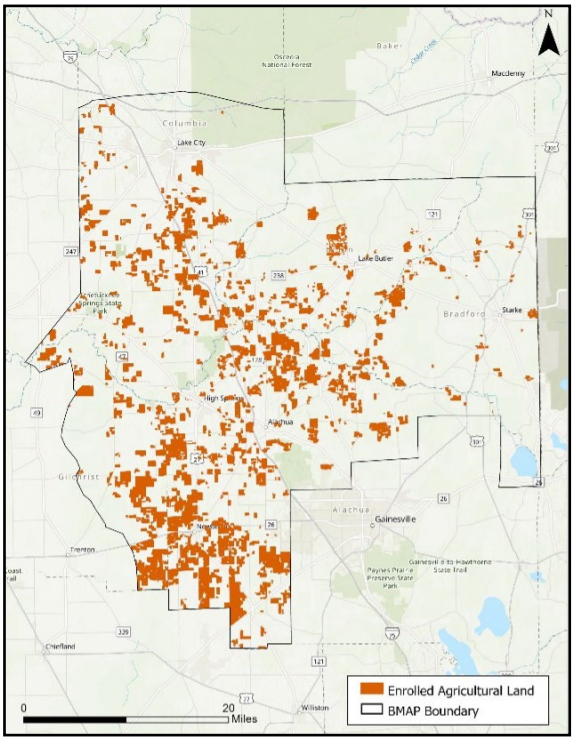
Agricultural Acres Enrolled

BMP Manuals	Acres
Citrus	0
Cow/Calf	39,660
Equine	13,803
Fruit & Nut	222
Multiple Commodities	30,2334
Nursery	967
Row/Field Crops	6,972
Sod	131
TOTAL	91,988

Status of Implementation of Agricultural Best Management Practices (BMPs) in the Santa Fe River Basin



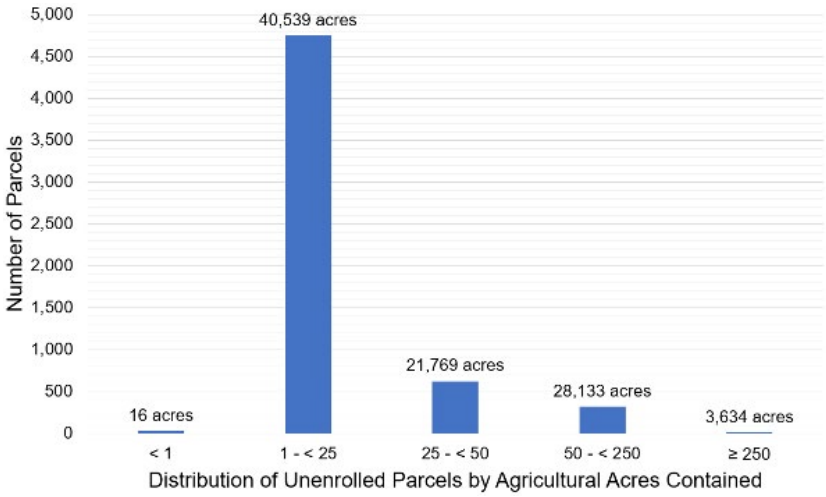
Agricultural Lands in BMAP Area



Enrolled Agricultural Lands in BMAP Area

Enrollment and Response Summary	2020	2020 Percent Enrolled
Total agricultural acres in the BMAP	245,737	45
Total agricultural acres enrolled	110,246	
Total irrigated acres	21,212	82
Total irrigated acres enrolled	17,310	
Number of NOIs within BMAP	799	
Completed IV site visits	268	

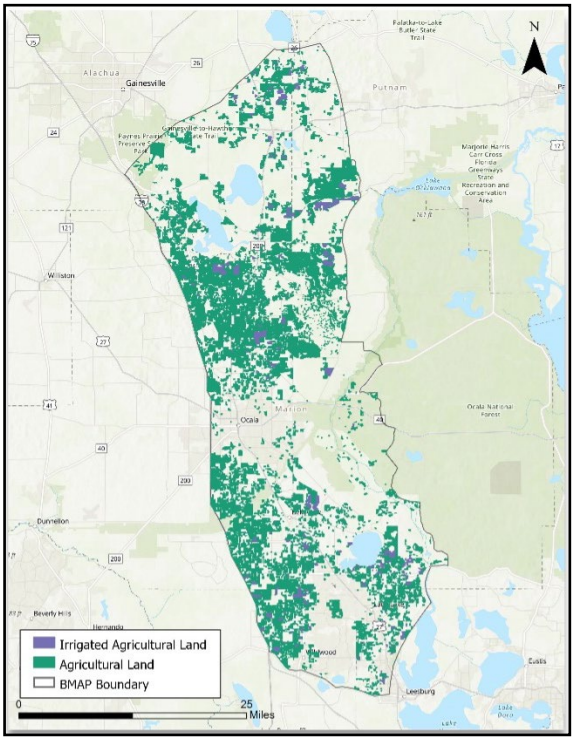
Unenrolled Lands Characterization



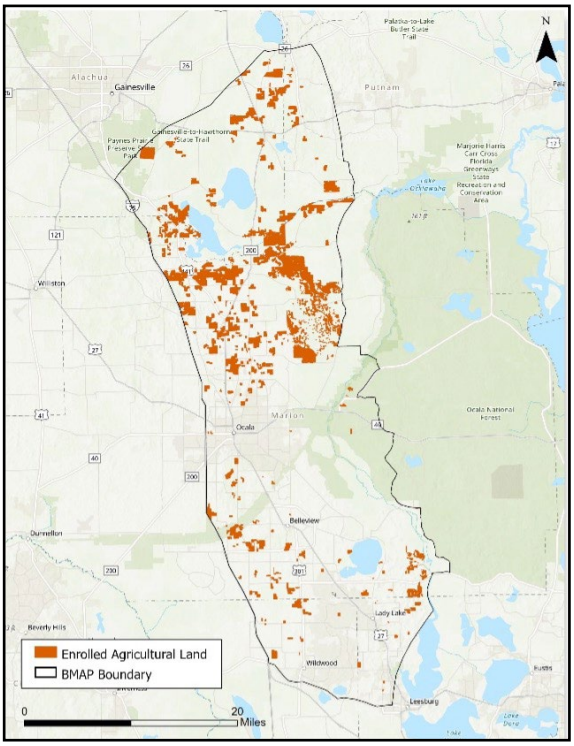
Agricultural Acres Enrolled

BMP Manuals	Acres
Citrus	0
Cow/Calf	46,897
Dairy	1,631
Equine	33
Fruit & Nut	507
Multiple Commodities	29,690
Nursery	733
Poultry	96
Row/Field Crops	30,445
Sod	214
TOTAL	110,246

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



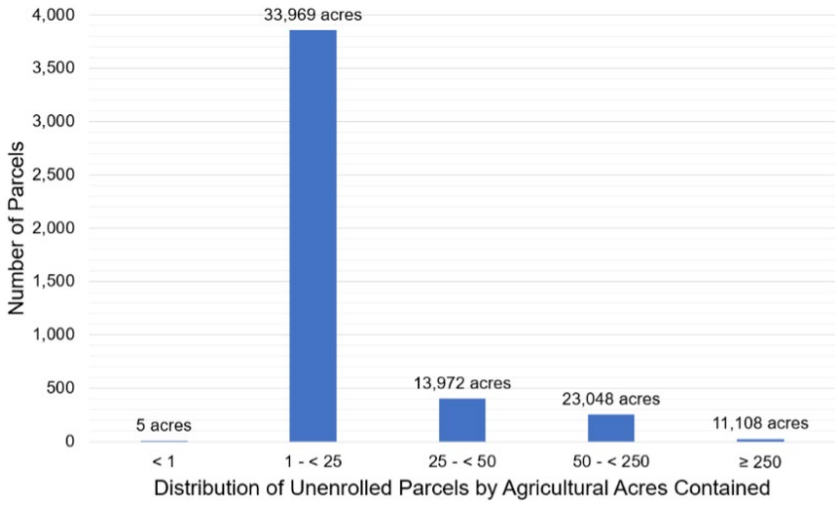
Agricultural Lands in BMAP Area



Enrolled Agricultural Lands in BMAP Area

Enrollment and Response Summary	2020	2020 Percent Enrolled
Total agricultural acres in the BMAP	156,584	27
Total agricultural acres enrolled	41,917	
Total irrigated acres	8,311	51
Total irrigated acres enrolled	4,239	
Number of NOIs within BMAP	376	
Completed IV site visits	78	

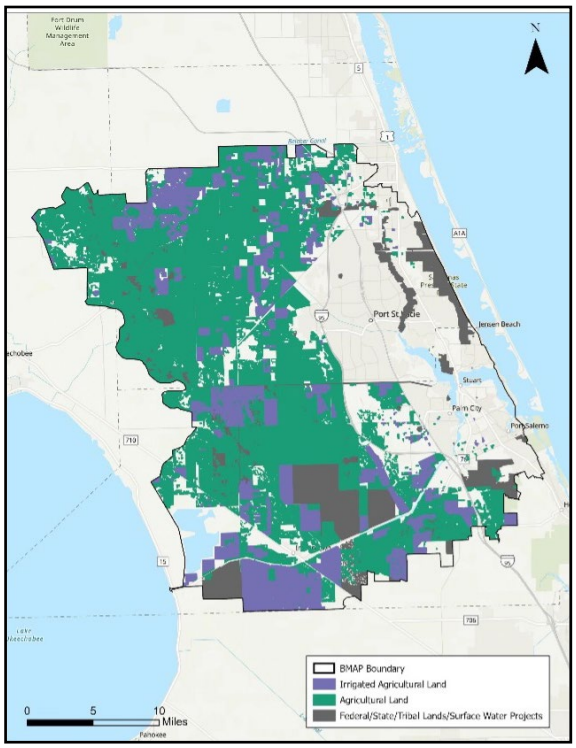
Unenrolled Lands Characterization



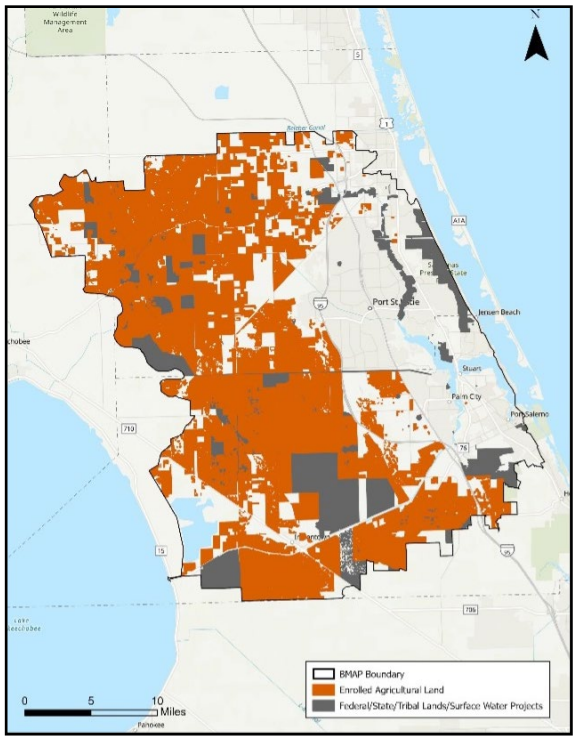
Agricultural Acres Enrolled

BMP Manuals	Acres
Citrus	1,157
Cow/Calf	23,4521
Dairy	79
Equine	4,351
Fruit & Nut	1,060
Multiple Commodities	6,063
Nursery	324
Row/Field Crops	5,392
Sod	39
TOTAL	41,917

Status of Implementation of Agricultural Best Management Practices (BMPs) in the St. Lucie River and Estuary Basin [28]



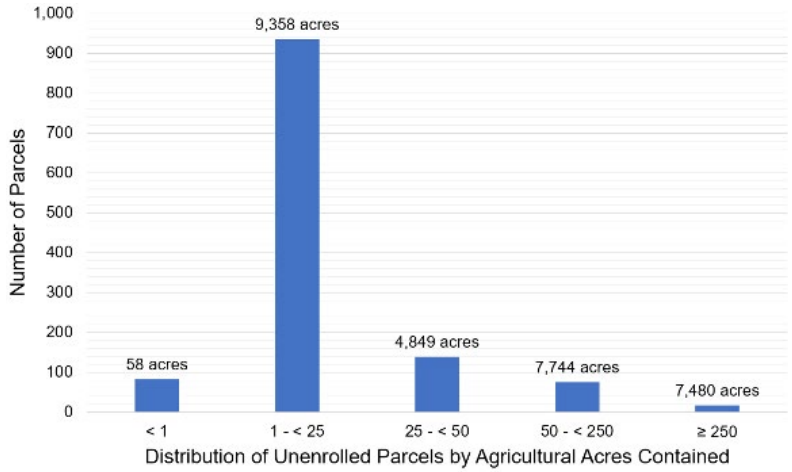
Agricultural Lands in BMAP Area



Enrolled Agricultural Lands in BMAP Area

Enrollment and Response Summary	2020	2020 Percent Enrolled
Total agricultural acres in the BMAP	293,465	82
Total agricultural acres enrolled	241,142	
Total irrigated acres	64,188	91
Total irrigated acres enrolled	58,483	
Number of NOIs within BMAP	533	
Completed IV site visits	45	

Unenrolled Lands Characterization

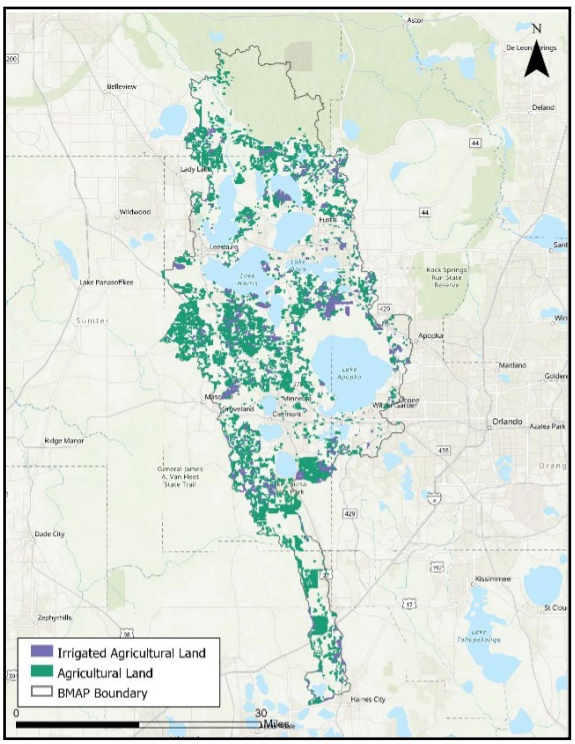


Agricultural Acres Enrolled

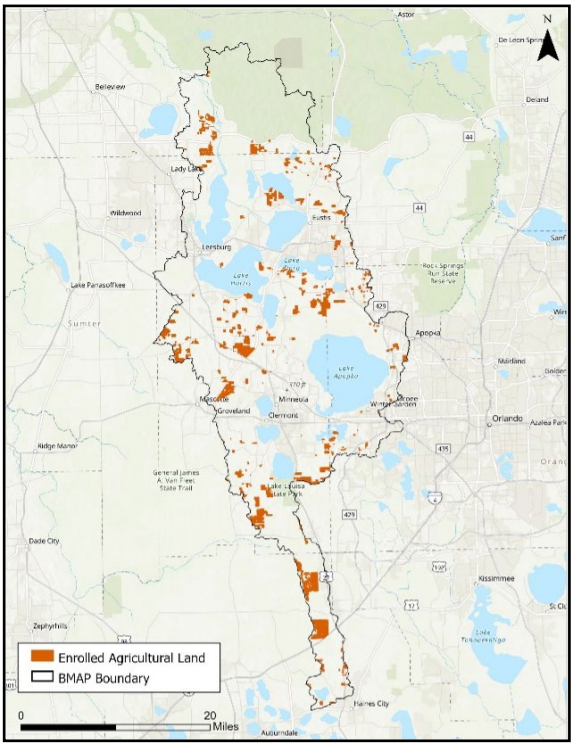
BMP Manuals	Acres
Citrus	21,308
Cow/Calf	112,372
Dairy	529
Equine	120
Fruit & Nut	44
LOPP	162
Multiple Commodities	22,489
Nursery	282
Poultry	42
Row/Field Crops	33,504
Sod	2,513
TOTAL	193,365

28. Characteristics and metrics for this BMAP are significantly different than 2019 because the BMAP area was expanded in the 2020 FDEP update. The Federal and State lands identified on the maps in gray areas were initially considered agriculture. These lands are not expected to contain agricultural activities.

Status of Implementation of Agricultural Best Management Practices (BMPs) in the Upper Ocklawaha River Basin



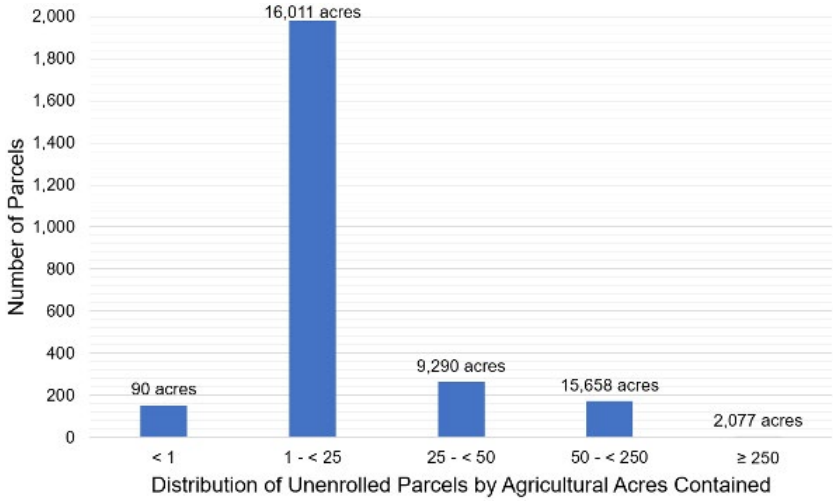
Agricultural Lands in BMAP Area



Enrolled Agricultural Lands in BMAP Area

Enrollment and Response Summary	2020	2020 Percent Enrolled
Total agricultural acres in the BMAP	101,015	22
Total agricultural acres enrolled	22,170	
Total irrigated acres	15,313	51
Total irrigated acres enrolled	7,864	
Number of NOIs within BMAP	321	
Completed IV site visits	92	

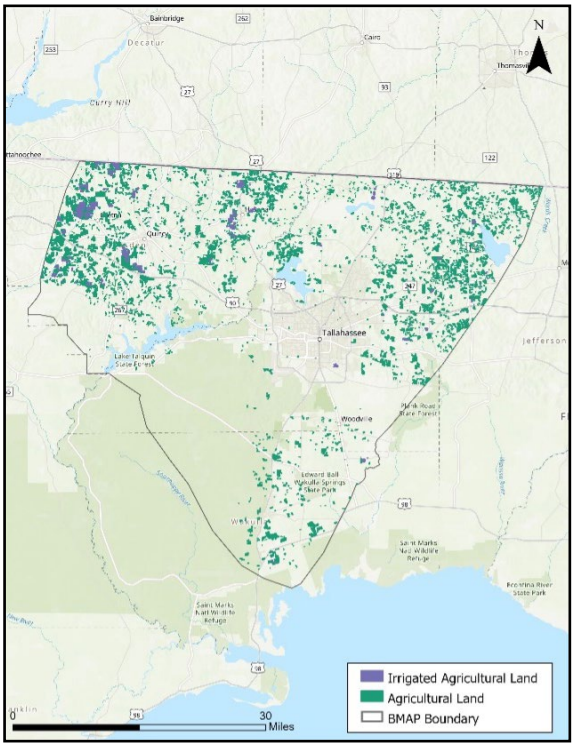
Unenrolled Lands Characterization



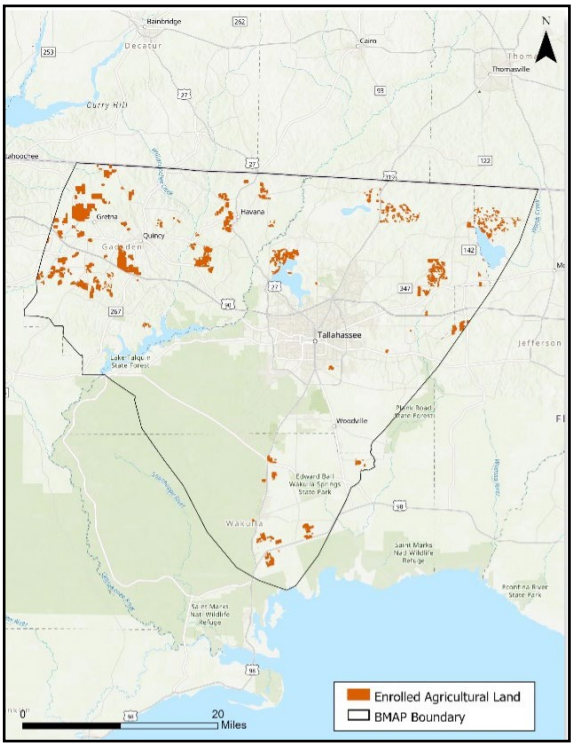
Agricultural Acres Enrolled

BMP Manuals	Acres
Citrus	6,238
Cow/Calf	9,602
Equine	149
Fruit & Nut	930
Multiple Commodities	1,422
Nursery	2,293
Row/Field Crops	1,034
Sod	502
TOTAL	22,170

Status of Implementation of Agricultural Best Management Practices (BMPs) in the Upper Wakulla River and Wakulla Springs



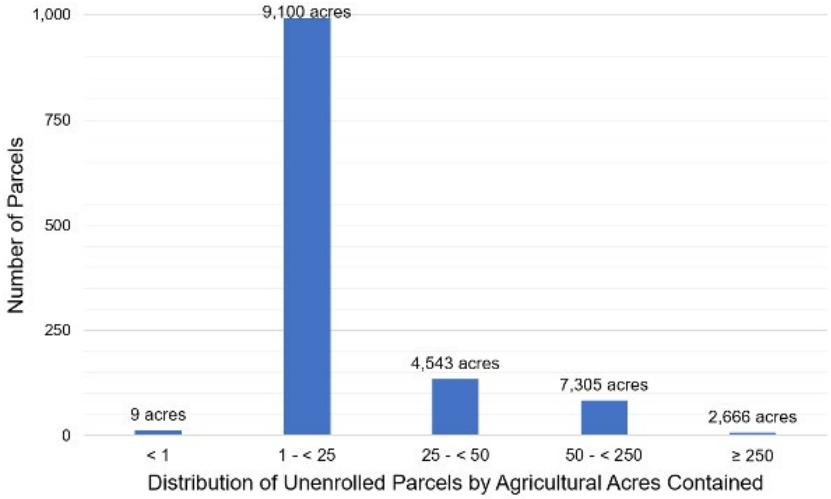
Agricultural Lands in BMAP Area



Enrolled Agricultural Lands in BMAP Area

Enrollment and Response Summary	2020	2020 Percent Enrolled
Total agricultural acres in the BMAP	60,763	28
Total agricultural acres enrolled	17,187	
Total irrigated acres	4,951	77
Total irrigated acres enrolled	3,820	
Number of NOIs within BMAP	110	
Completed IV site visits	14	

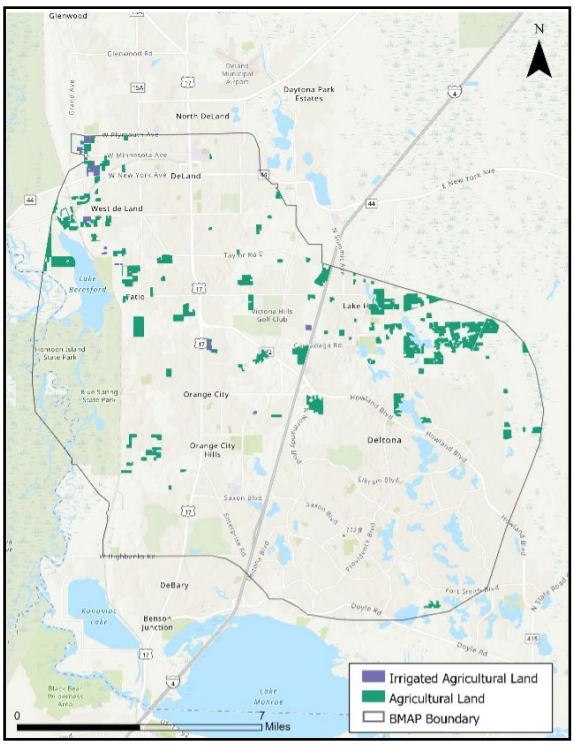
Unenrolled Lands Characterization



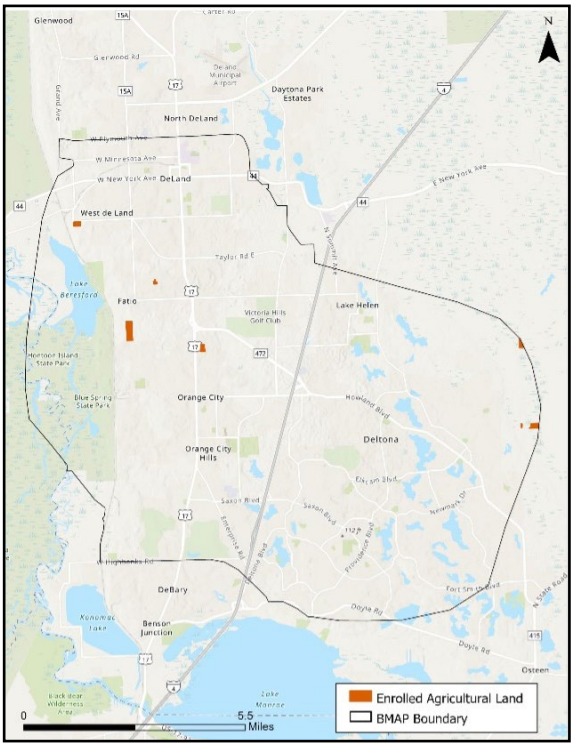
Agricultural Acres Enrolled

BMP Manuals	Acres
Citrus	87
Cow/Calf	4,592
Equine	5
Fruit & Nut	1,265
Multiple Commodities	2,104
Nursery	2,256
Poultry	312
Row/Field Crops	6,115
Sod	451
TOTAL	17,187

Status of Implementation of Agricultural Best Management Practices (BMPs) in the Volusia Blue Springs



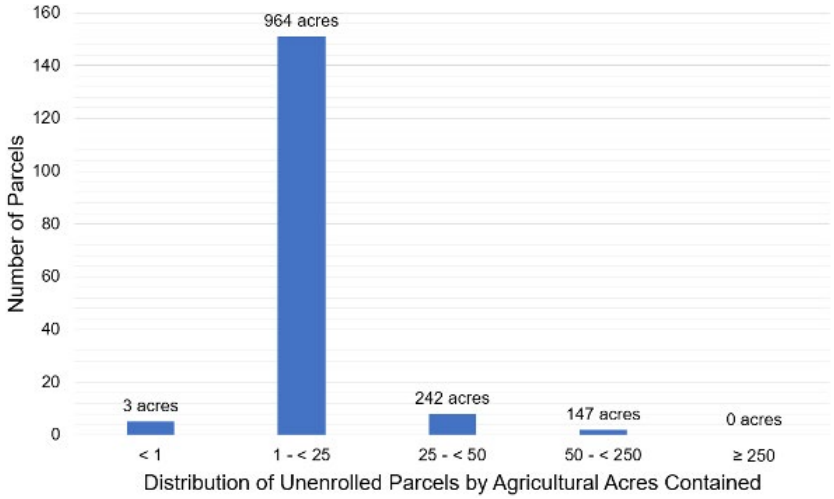
Agricultural Lands in BMAP Area



Enrolled Agricultural Lands in BMAP Area

Enrollment and Response Summary	2020	2020 Percent Enrolled
Total agricultural acres in the BMAP	2,389	5
Total agricultural acres enrolled	114	
Total irrigated acres	110	23
Total irrigated acres enrolled	25	
Number of NOIs within BMAP	6	
Completed IV site visits	0	

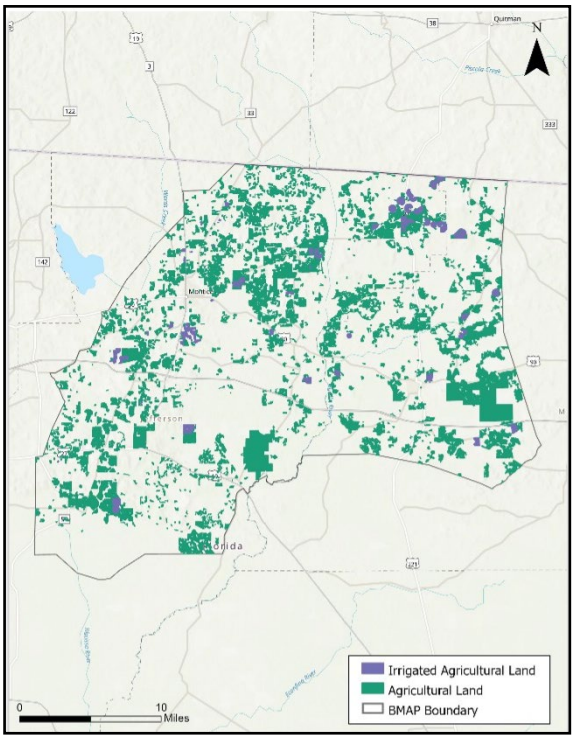
Unenrolled Lands Characterization



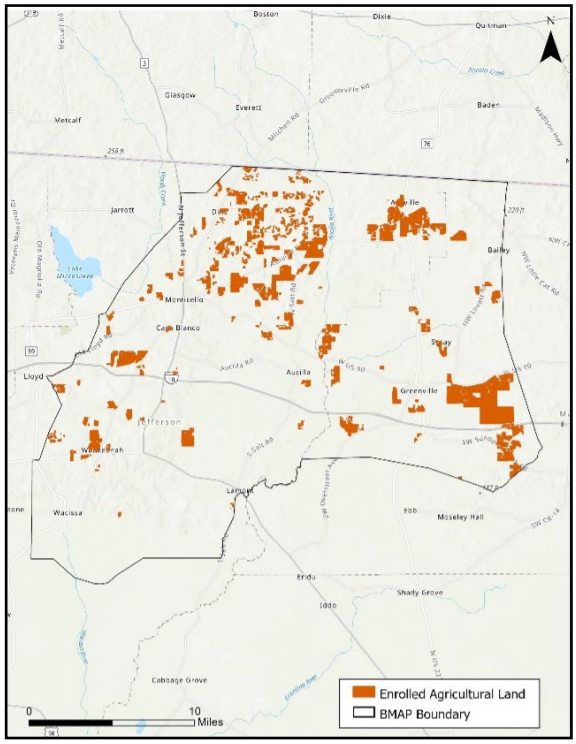
Agricultural Acres Enrolled

BMP Manuals	Acres
Citrus	0
Cow/Calf	84
Equine	0
Fruit & Nut	0
Multiple Commodities	11
Nursery	19
Row/Field Crops	0
Sod	0
TOTAL	114

Status of Implementation of Agricultural Best Management Practices (BMPs) in the Wacissa River and Wacissa Springs



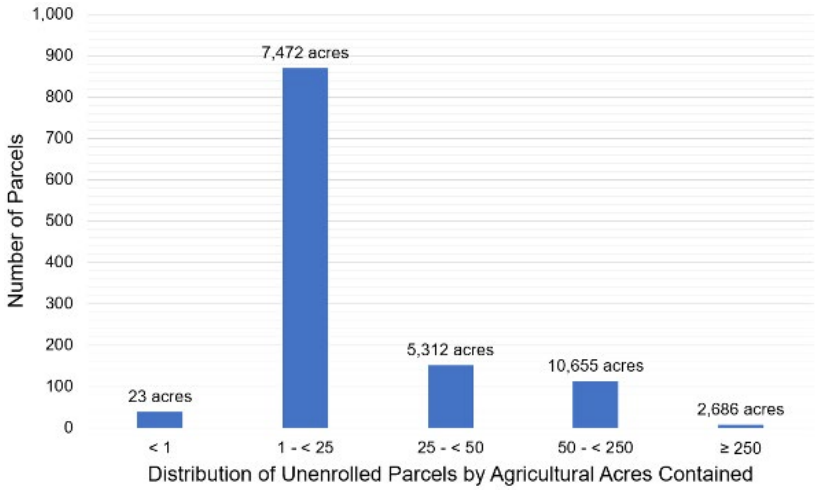
Agricultural Lands in BMAP Area



Enrolled Agricultural Lands in BMAP Area

Enrollment and Response Summary	2020	2020 Percent Enrolled
Total agricultural acres in the BMAP	60,383	35
Total agricultural acres enrolled	21,159	
Total irrigated acres	3,939	56
Total irrigated acres enrolled	2,224	
Number of NOIs within BMAP	84	
Completed IV site visits	19	

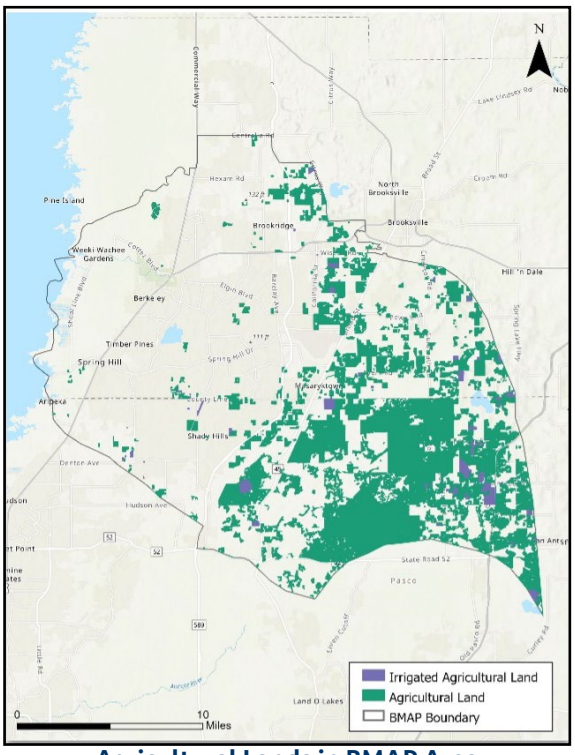
Unenrolled Lands Characterization



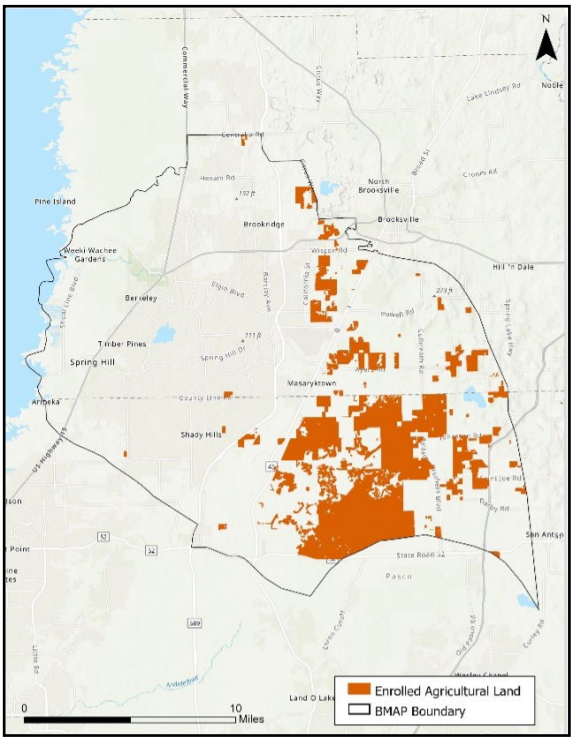
Agricultural Acres Enrolled

BMP Manuals	Acres
Citrus	28
Cow/Calf	8,563
Dairy	1,259
Multiple Commodities	827
Nursery	65
Row/Field Crops	10,417
TOTAL	21,159

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



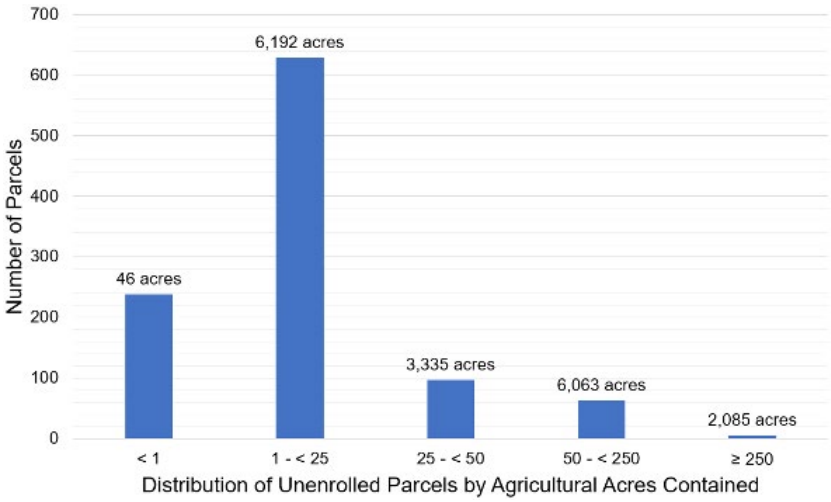
Agricultural Lands in BMAP Area



Enrolled Agricultural Lands in BMAP Area

Enrollment and Response Summary	2020	2020 Percent Enrolled
Total agricultural acres in the BMAP	48,961	51
Total agricultural acres enrolled	25,071	
Total irrigated acres	1,239	55
Total irrigated acres enrolled	686	
Number of NOIs within BMAP	83	
Completed IV site visits	31	

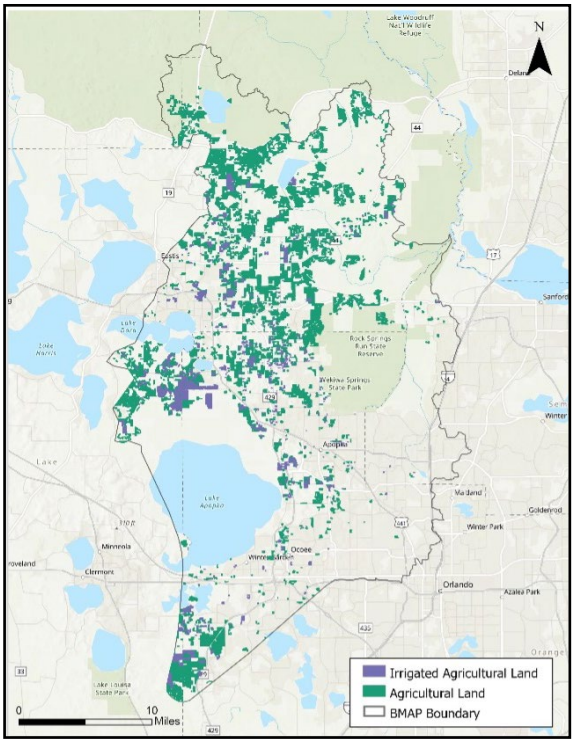
Unenrolled Lands Characterization



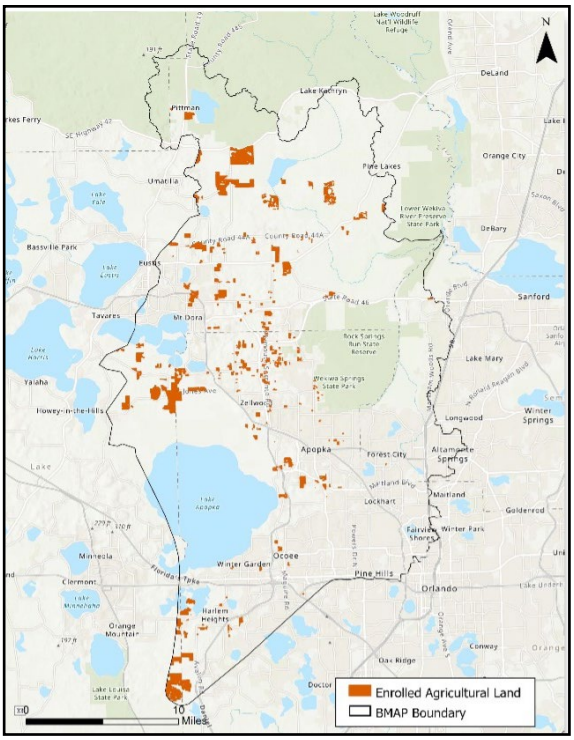
Agricultural Acres Enrolled

BMP Manuals	Acres
Citrus	122
Cow/Calf	18,599
Equine	17
Fruit & Nut	889
Multiple Commodities	2,957
Nursery	143
Row/Field Crops	903
Wildlife	1,441
Sod	0
TOTAL	25,071

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



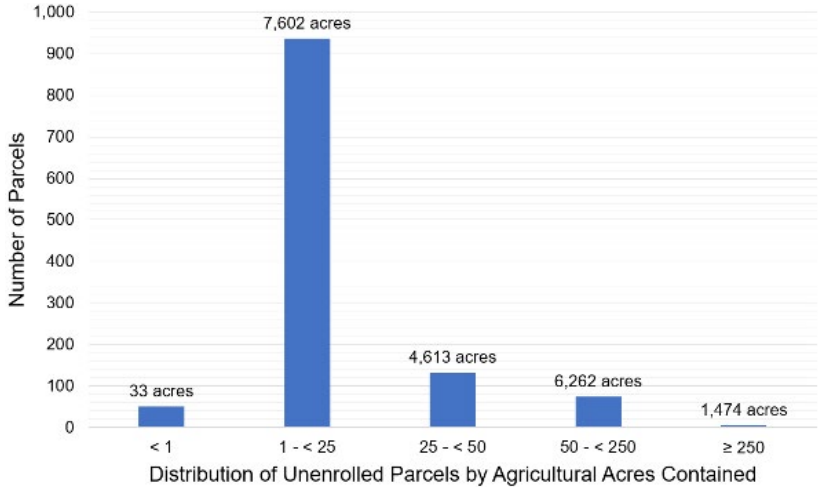
Agricultural Lands in BMAP Area



Enrolled Agricultural Lands in BMAP Area

Enrollment and Response Summary	2020	2020 Percent Enrolled
Total agricultural acres in the BMAP	50,483	20
Total agricultural acres enrolled	10,137	
Total irrigated acres	6,950	58
Total irrigated acres enrolled	4,035	
Number of NOIs within BMAP	300	
Completed IV site visits	43	

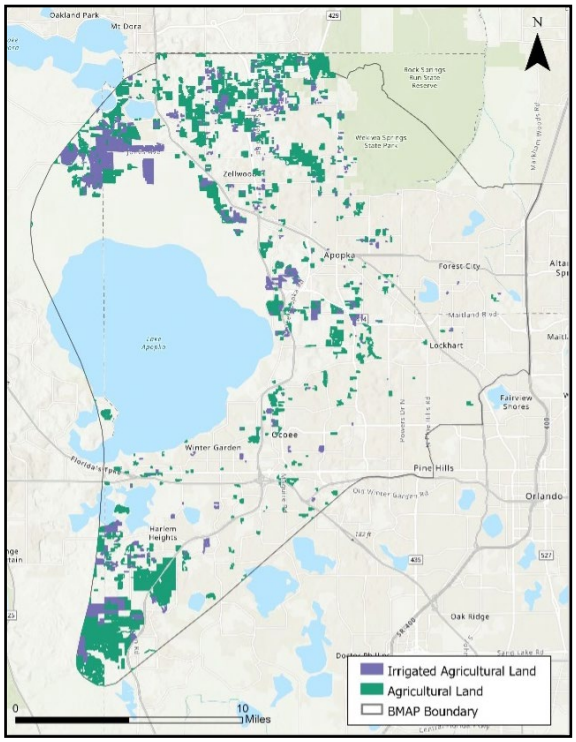
Unenrolled Lands Characterization



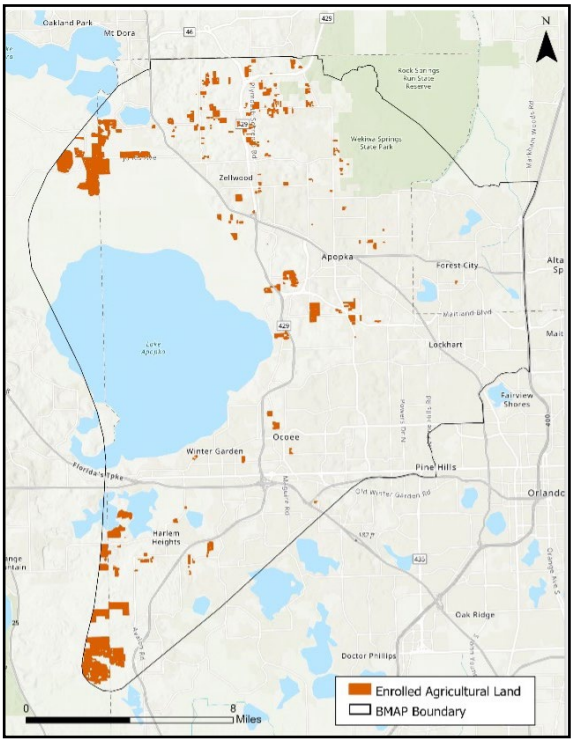
Agricultural Acres Enrolled

BMP Manuals	Acres
Citrus	1,683
Cow/Calf	2,685
Equine	570
Fruit & Nut	481
Multiple Commodities	528
Nursery	2,469
Row/Field Crops	874
Sod	847
TOTAL	10,137

Status of Implementation of Agricultural Best Management Practices (BMPs) in the Wekiwa Spring and Rock Spring Basin



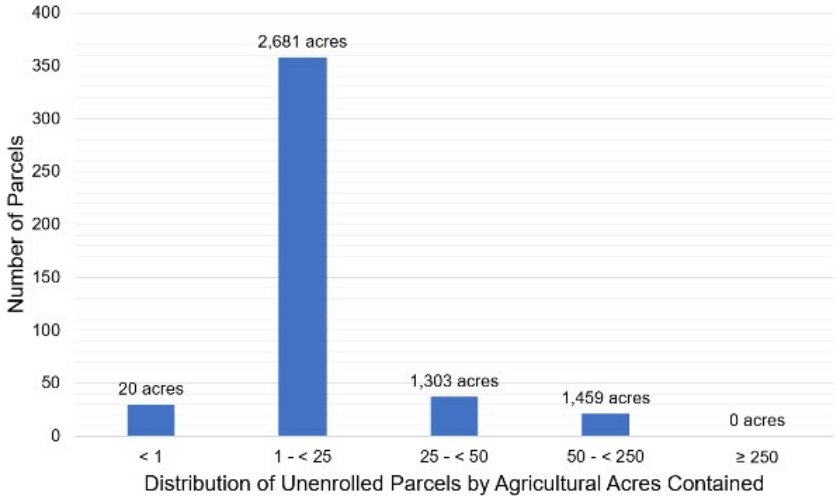
Agricultural Lands in BMAP Area



Enrolled Agricultural Lands in BMAP Area

Enrollment and Response Summary	2020	2020 Percent Enrolled
Total agricultural acres in the BMAP	18,172	27
Total agricultural acres enrolled	4,852	
Total irrigated acres	4,602	58
Total irrigated acres enrolled	2,656	
Number of NOIs within BMAP	187	
Completed IV site visits	16	

Unenrolled Lands Characterization



Agricultural Acres Enrolled

BMP Manuals	Acres
Citrus	1,271
Cow/Calf	424
Equine	20
Fruit & Nut	218
Multiple Commodities	409
Nursery	1,420
Row/Field Crops	787
Sod	303
TOTAL	4,852