



Wekiva River Basin Commission

IMPLEMENTATION PROGRESS REPORT

2019



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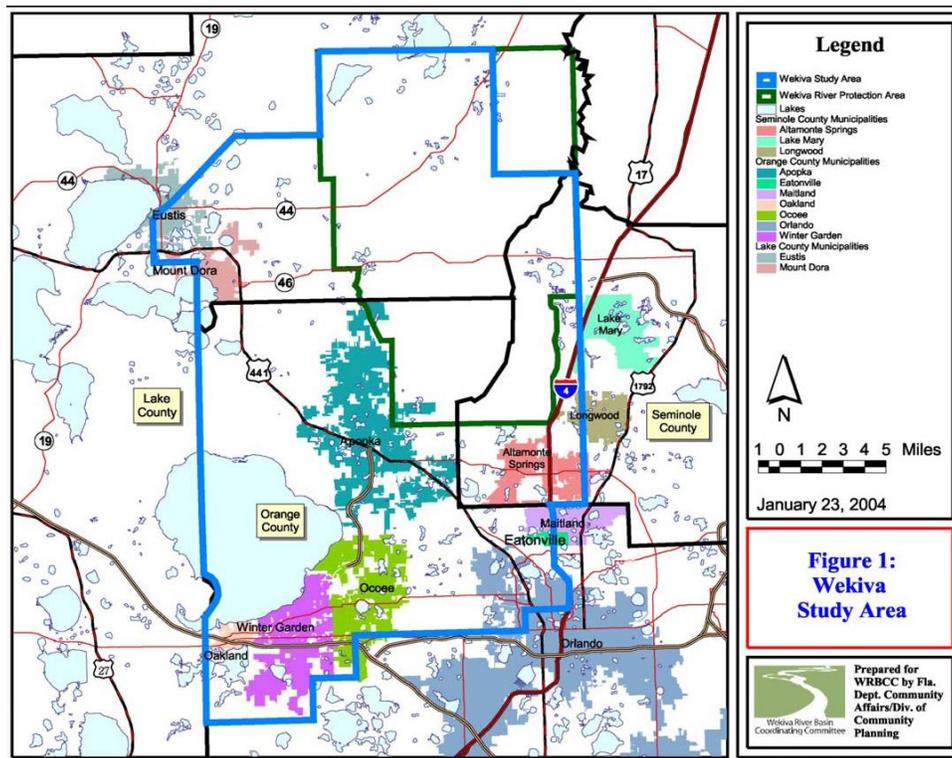
INTRODUCTION

BACKGROUND

Governor Bush signed the Wekiva Parkway and Protection Act (Chapter 2004-384, Laws of Florida) into law on Tuesday, June 29, 2004, at Wekiwa Springs State Park in Apopka. The law implements the recommendations of the Wekiva River Basin Coordinating Committee and authorizes designing and building the Wekiva Parkway, completing the beltway around Orlando while ensuring the protection of the Wekiva River system.

Over a six-month period, the Wekiva River Basin Coordinating Committee discussed the best way to protect the fragile spring-fed Wekiva River Basin while ensuring regional transportation, growth management and water resource needs are met. The Committee used a regional collaborative approach to produce consensus recommendations that focus and coordinate agency and local government activities to bring a higher level of planning and springs protection to the Wekiva River Basin. This regional and collaborative method for growth management planning has become a model that is being implemented in other areas of the State. The Committee was also responsible for delineating the Wekiva Study Area.

Figure 1 – Wekiva Study Area



An appropriate portion of land area that contributes surface and groundwater to the Wekiva River system was the criteria used to create the Wekiva Study Area. There are 15 local governments included in the Wekiva Study Area: Orange County and the municipalities of Maitland, Eatonville, Orlando, Ocoee, Winter Garden, Oakland and Apopka; Seminole County and the municipalities of Lake Mary, Longwood, and Altamonte Springs; and Lake County and the municipalities of Eustis and Mount Dora.

The Wekiva Parkway and Protection Act authorized the Central Florida Expressway Authority (CFX, formerly Orlando-Orange County Expressway Authority, OOCEA) to act as a third party acquisition agent on behalf of the Trustees of the Internal Improvement Trust Fund and the St. Johns River Water Management District (SJRWMD) to acquire three parcels of land identified by the Committee to provide buffer areas along the Parkway corridor. Acquisition of these parcels was to begin no later than December 21, 2004, and be completed no later than December 31, 2010. The CFX was authorized to construct and finance the Wekiva Parkway and an associated connector road.

Required studies and regulatory measures designed to protect the natural resources of the Wekiva Study Area include:

- The *Florida Department of Environmental Protection* (FDEP) requirement to prepare a study on Water Quality and Wastewater Standards by December 1, 2004. Based on the results of the study, the Department was to initiate rulemaking by March 1, 2005, or recommend additional statutory authority to achieve nitrogen reductions protective of the surface and groundwater quality of the Wekiva Study Area; and establish Total Maximum Daily Loads by December 1, 2006.
- The *Florida Department of Health* (FDOH) requirement to prepare a study on On-site Disposal Systems Treatments Standards and Implementation of Septic Tank Maintenance and Inspection Program by December 1, 2004. Based on the results of the study, and if deemed necessary, the Department was to initiate rulemaking by March 1, 2005, or recommend additional statutory authority to address nitrogen reduction through appropriate on-site disposal standards.
- The *St. Johns River Water Management District* (SJRWMD) requirement to initiate rulemaking for pre- and post-development standards for stormwater and consumptive use thresholds by March 1, 2005; establish Pollution Load Reduction Goals for the Wekiva Study Area by December 1, 2005; and update minimum flows and levels for Rock Springs and Wekiwa Springs by December 1, 2007.

- The *Florida Department of Community Affairs* (FDCA), now Florida Department of Economic Opportunity (FDEO) and the SJRWMD were to coordinate and ensure the adoption of comprehensive plan amendments by January 1, 2006, and land development regulations by January 1, 2007, which address stormwater, wastewater and land use issues as they relate to the Wekiva Study Area.
- The creation of a 19-member *Wekiva River Basin Commission* appointed by the Governor, to monitor and ensure implementation of the recommendations of the Wekiva River Basin Coordinating Committee. The East Central Florida Regional Planning Council is charged with providing staff support.

REPORT FORMAT

This report describes the progress made by the Wekiva River Basin Commission during 2019 in ensuring the implementation of the recommendations of the Wekiva River Basin Coordinating Committee. The Committee's Final Report outlines seventeen (17) recommendations related to construction of the Wekiva Parkway and protection of the Wekiva River Basin's natural resources. This document reports the progress made on each recommendation during the year. The corresponding portion of the Wekiva Parkway and Protection Act is noted for those recommendations with an associated statutory requirement.

PROGRESS TOWARD MEETING RECOMMENDATIONS OF THE WEKIVA RIVER BASIN COORDINATING COMMITTEE

RECOMMENDATION 1 – WEKIVA PARKWAY PLANNING AND DESIGN

Section 369.317 (1-5) of the *Wekiva Parkway and Protection Act (Wekiva Act)* provides for construction of the Wekiva Parkway consistent with proposed corridor and design guidelines identified in Recommendation 1 of the *Wekiva River Basin Coordinating Committee Final Report*. This effort is co-managed by CFX and FDOT.

CFX initiated the Project Development and Environmental (PD&E) study for the Parkway in January 2005, collecting data and performing background studies necessary for examining suitable alignments and potential community and environmental impacts. Federal standards for conducting the study are being followed, which will preserve the right to use federal funds for right-of-way (ROW) acquisition and construction. In 2007, the PD&E Study presented the recommended alignments, and then moved into a succession of public meetings to possibly refine the alignments to address community concerns in Orange, Lake, and Seminole Counties.

Coordination with the Federal Highway Administration and the State Historic Preservation Office continued throughout 2008, 2009 and most of 2010 in order to address the historic resources in the project corridor. In 2009, a feasibility study was undertaken by FDOT to determine the feasibility of a trail to be located in conjunction with the Parkway. The study was finalized in 2010.

During 2009 and 2010, the FDOT and Expressway Authority continued to work with cities and counties to address specific concerns with the parkway interchanges and other engineering issues, as well as discussions on parkway funding options between FDOT and the Expressway Authority. On December 17, 2009 a public meeting was held in Sorrento to discuss a service road concept for East Lake County. In early 2010, after further coordination with stakeholders, the service road was incorporated into the preliminary design concept.

The Florida Department of Environmental Protection, Department of Agriculture and Consumer Services Division of Forestry provided FDOT and CFX signed Section 4(f) concurrence letters for the Wekiva Parkway and the Programmatic Section 4(f) Evaluation for Public Lands was accepted by FHWA. The Draft Section 106 Case Study for two historic resources was sent to the State Historic Preservation Office for review and comment. In October 2011, Section 106 was approved by the State Historic Preservation Office and accepted by the FHWA.

In August 2010, FHWA approved the Environmental Assessment document for public availability, allowing public hearings to be scheduled by FDOT and CFX. Public hearings were held on October 26 in Apopka, October 27 in Mount Dora, and October 28 in Sanford. The public comment period, after the public hearing, closed on November 8, 2010. Some key points noted during the hearings included:

- Number of alignments considered (52 in Orange County, 10 in Lake County, and 6 in Seminole County)
- Final Recommended Alignments
- Cross sections of roadway
- Next steps

In August 2010, Seminole County Board of County Commissioners, the Seminole County Expressway Authority, and the Lake County Board of County Commissioners approved inter-local agreements with CFX enabling the Expressway Authority to build, operate and maintain the Wekiva Parkway. On June 20, 2014, Governor Rick Scott signed SB 230. The Central Florida Expressway Authority took over the Orlando-Orange County Authority, including E-PASS and incorporates representation from Lake, Osceola, and Seminole counties into a larger, regional tolling authority.

On May 29, 2012 FDOT signed a Memorandum of Understanding (MOU) formalizing the agreement with CFX to build the Wekiva Parkway. The MOU outlined the general understanding of the agencies concerning the financing, production, acquisition, design, construction, ownership operation, management and maintenance of the Wekiva Parkway. The signing of the MOU marked the last major hurdle toward making the long-sought vision of completing the beltway around metropolitan Orlando a reality. The MOU was approved by the boards of CFX, MetroPlan Orlando, and Lake Sumter MPO.

The following steps required for finalization of all alignments for the Parkway were accomplished by end of 2012:

- Received approval from CFX (formerly Orlando-Orange County Expressway Authority) Board;
- Gained Federal Highway Administration (FHWA) approval;
- FDOT and FHWA approval of SR 417/I-4 Interchange Modification Report;
- Gained State Historic Preservation Office approval;
- Completed the Engineering and Environmental Documents; and
- Scheduled and held public hearings.

Updates for these Requirements for full authorization of the Parkway are below:

SECTION 106 AND SECTION 4(F) FOR HISTORIC RESOURCES

- **Memorandum of Agreement (MOA)**

CFX and FDOT prepared the Memorandum of Agreement (MOA) in June 2011 to address mitigation of impacts to two Section 106 historic resources. After review and concurrence, FHWA and the State Historic Preservation Officer (SHPO) executed the MOA in July 2011.

- **Section 106 Case Study**

After the MOA was executed, CFX and FDOT prepared the final Section 106 Case Study of the two historic resources for review by the SHPO and FHWA. The SHPO signed the sufficiency and concurrence form on October 18th, 2011. The revised final Section 106 Case Study was submitted to FHWA on November 17th, 2011 and approved.

- **Individual Section 4(f) Evaluation**

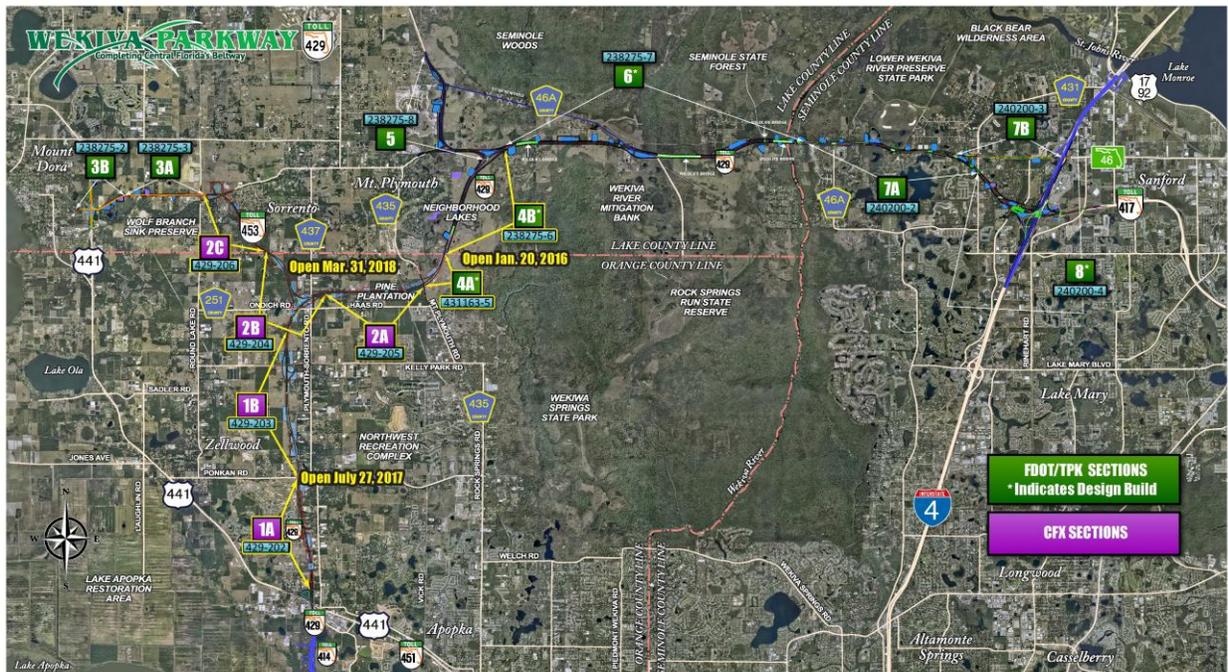
After receipt of SHPO concurrence, CFX and FDOT completed the final draft Individual Section 4(f) Evaluation for the two historic resources. The final draft document was submitted to FHWA on November 29, 2011. The final Individual Section 4 (f) was delivered in March 2012 and was approved and signed on May 11, 2012.

ENVIRONMENTAL ASSESSMENT (EA)

- **EA and Finding of No Significant Impact (FONSI)**

CFX and FDOT revised the noise study information in the EA to meet new Federal requirements and preparing the draft FONSI. The EA and the FONSI was submitted to FHWA and approved in May 2012.

DESIGN AND BUILD UPDATES



2012 Update:

In 2012, FDOT and CFX launched a joint Community Awareness Program that included creation of the www.WekivaParkway.com website to serve as a critical information resource. The program included proactive coordination with elected and appointed officials, presentations to community groups and events to update the media on the project.

FDOT began the process of design and build. By the end of 2012, segments of the parkway were in different stages of the process. As of the last Commission Meeting in October 2012: Sections 4A and 4B should have construction permits in December with the following permit activity: Army Corps of Engineering permit obtained; DEP issued a draft permit with the intent to issue; Gopher Tortoise and Burrowing Owl Permits in process. FDOT began final design of Section 3B in November 2012, and procurement was underway for Sections 3A and 5. Design firms were selected for Sections 6 and Section 7A. The connection interchange with I-4 will be the last section to move forward.

By the end of 2012, CFX's four segments were under design, with a design firm having been selected for the remaining section. Parkway design of each section was anticipated to take approximately 18-24 months.

2013 Update:



In January 2013, FDOT relocated more than 100 gopher tortoises per permit on Sections 4A and 4B. FDOT began construction on those design-build sections on Feb. 18, 2013. Project activities included proactive coordination with state parks and wildlife officials regarding debris burning, wildlife monitoring and other environmental considerations.

For the other parkway sections, work continued on design and to secure contractors for each segment; obtain the various permits including the Gopher Tortoise and Burrowing Owl Permits; continuing final design; and obtain ROW acquisitions (such as Kelly Park Crossing) for the various segments. In addition, the alignment near Red Tail subdivision was successfully readdressed via extensive coordination with community members and Lake County officials.

As part of the proactive Community Awareness Plan being implemented by both agencies, five public meetings covering nine project sections were conducted in 2013. The public workshops updated nearly 1,000 community members on the latest design plans.

To make sure the public was clear that the project was moving forward, a high-profile Wekiva Parkway Kick-off Event was held on July 10, 2013. The event also highlighted the intense environmental care with which the parkway has been planned through the Wekiva River Basin. To this end, the event included a tree planting ceremony by Governor Rick Scott, U.S. Congressman Daniel Webster and other state and local officials.



During design, FDOT continued the extensive coordination with the Wekiva River System Advisory Committee, made up of environmental agency and advocacy groups and area officials. This included engaging them in the design of the Wekiva Parkway Section 6 bridge over the Wekiva River during a stakeholder workshop on June 18, 2013 and Bridge Charrette No. 1 on Dec. 11, 2013.

Participants gave input on the shapes, colors and textures of the new Wekiva River Bridge planned as part of the Wekiva Parkway. They also discussed concerns about surrounding trees and wildlife, the health and use of the river and other potential project impacts.

2014 Update:

FDOT conducted the final bridge charrette on January 28, 2014, during which the Wekiva River System Advisory Committee's ideas helped refine the Section 6 bridge design. The bridge design was featured at a public meeting open house on April 29, 2014 conducted by the FDOT to review the latest preliminary design plans for Wekiva Parkway Sections 5 & 6 in Lake County and a small portion of Seminole County. More than 220 people attended the meeting, with many providing positive comments about the bridge concept.

All told, three public meetings for six project sections in Lake, Orange and Seminole counties were held in 2014, drawing more than 460 attendees.

Construction on FDOT Sections 4A and 4B reached about 66% completion, including having paved the south end and driven pile for bridges at the floodplain and near SR 46. Work on these sections was expected to finish in late spring of 2015.



FDOT continued the permitting and design for its sections. FDOT in the summer of 2014 also began design for a multi-use trail to parallel Sections 4A and 4B in Orange and east Lake counties. The trail, which is funded for construction in 2017, would connect with a planned extension of the West Orange Trail, the planned Lake-Wekiva Trail and the trail planned along the non-tolled service road on Wekiva Parkway Section 6.

CFX finished permitting and design on three of its five parkway sections in 2014; the remaining sections were to complete design by spring of 2015. The agency continued acquiring the necessary property for the project. CFX, in coordination with FDOT and the FHWA, also submitted an application for Transportation Infrastructure Finance and Innovation Act (TIFIA) funding to accelerate Section 2 of the parkway. CFX in the summer of 2014 began the procurement process to select firms to oversee and build Sections 1A and 1B, scheduled to begin construction in 2015.

2015 Update:

In an action-packed year, FDOT prepared to open the first sections of the Wekiva Parkway, and the Central Florida Expressway Authority began construction on its first five-mile stretch.

FDOT progressed toward finishing design on most of its sections, with public meetings held to share the latest plans on Sections 7A in Seminole County, and Sections 5 and 6 in east Lake County. The meetings drew nearly 370 people. The Department began the plans update process for the sections having reached 100 percent design: 3A and 3B, 5 and 7A. FDOT also formally got underway with right of way acquisition for these sections.



Construction of FDOT Sections 4A and 4B was nearly complete, with crews having built the toll gantry and adjacent building, posted signs and laid the final layer of pavement. Wildlife already has been spotted using the floodplain bridge to

safely pass under the road during dry periods. Section 4 is built on the former Neighborhood Lakes parcel purchased for conservation. The environmental protections and aesthetics work is done, with crews having installed wildlife fencing, wildlife jump-outs, bat houses and placed landscaping.



The 3.14-mile segment from County Road 435 (Mount Plymouth Road) to SR 46 was on track to open in late January 2016. This section will



introduce Central Floridians to the parkway's all electronic tolling feature, which will provide the greatest customer convenience and traffic flow efficiency. Both agencies also have programs for those without transponders.

The Florida's Turnpike Enterprise this year held Toll Rate Rule Development Public Workshops, which the public could attend online or on site. The public workshops were held to present the proposed costs to drive the Wekiva Parkway and to receive input.

The Department began drafting the Request for Proposal for the Section 6 design-build project, which includes the project's signature Wekiva River Bridge. Preparations and

promotions also kicked off for the FDOT Industry Forum to be held on January 26, 2016 at the Sanborn Activity and Event Center in Deland. The Department is slated to advertise for bids from design-build teams for Section 6 in early May 2016.

After an extended and intensive application process, CFX on March 12, 2015 received a federal loan under the Transportation Infrastructure Finance and Innovation Act (TIFIA) Program for its portion of the parkway. The additional funding allowed CFX to move up the schedule to finish building its five sections from 2019, to January of 2018. The federal loan could potentially save more than \$260 million in bond interest payments.

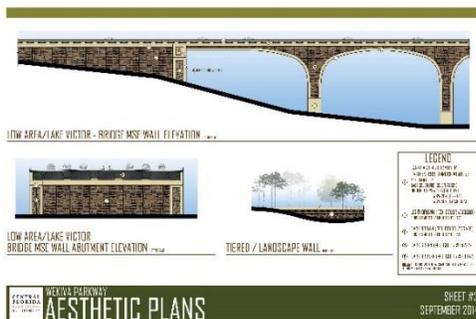


CFX in June and August began building Sections 1A and 1B, respectively, from US 441 near Plymouth Sorrento Road to the planned interchange at Kelly Park Road. Prince Construction is building the \$56.1 million Section 1A and Superior Construction is building the \$46.6 million Section 1B.

The scale of the construction is impressive. Section 1A, for example, is in the process of installing 700 concrete bridge piles and more than 1 million cubic yards of embankment.



Work on this stretch is scheduled to finish in spring of 2017. The parkway will provide an alternative to commuters currently taking Plymouth Sorrento Road, Round Lake Round, CR 435 and US 441.



CFX this year finished design on Section 2, a five-mile stretch that includes the systems interchange northwest of Plymouth Sorrento Road and Ondich Road. CFX held a pre-construction Community Open House for Sections 2A, 2B and 2C on Sept. 24, 2015, which was attended by nearly 160 people.

Community members viewing the latest project maps and aesthetics exhibits learned that construction would begin on this estimated \$218 million segment in 2016.

Working with FDOT, CFX was able to clear the right of way for Sections 1 and 2 this year. CFX also began procuring firms to oversee and build Section 2. That includes awarding the contract to build the Section 2B systems interchange to Southland Construction, with a winning bid of \$79.6 million.



Environmental coordination continued in 2015, with project staff providing updates to the Wekiva River Basin Commission and the Wekiva River System Management Advisory Committee, as well as working closely with state and national environmental agencies and advocates. A major highlight: FDOT successfully secured National Park Service Concurrence in nine months for the Section 6 Wekiva River bridge design.

Throughout the year, both agencies continued to coordinate closely with local, state and federal officials, as well as engaged community members via a joint community awareness program. Community outreach including neighborhood and civic group presentations, youth groups, special events, and public meetings reached more than 5,300 officials and community members. The agencies also continued to expand the heavily used www.wekivaparkway.com website, adding construction update and FDOT Industry Forum pages. This crucial community resource, launched in June of 2012, had received nearly 100,000 visits from nearly 75,000 visitors through the end of 2015.

2016 Update:

Community Coordination

As the first Wekiva Parkway sections opened and others began construction, CFX and FDOT remained committed to ensuring that the community had input into, understood and supported the project. The agencies continued to work in tandem to provide consistent project messaging to the public throughout the 25-mile corridor. To that end, CFX and FDOT conducted seven Joint Agency Public Involvement Coordination meetings in 2016.

Robust communications strategies this year included intensifying the Wekiva Parkway Youth Outreach and Education Program, by working with Lyman High School's engineering magnet program to provide an in-depth look at how CFX Sections 1A and 1B continue to take shape (*photo, right*). Project and agency staff also



participated in large-scale, back-to-school events. All told, we interacted with 1,337 teachers, students and their families using this strategy.

The agencies in 2016 also held a design update public meeting for Section 8 in March and an Access Management Public Hearing for Sections 3A, 3B and 5 in July. The gatherings drew more than 300 attendees. Project staff in 2016 presented updates to about 30 homeowners associations, business groups, cultural, civic and fraternal organizations, trade associations, directly educating and engaging more than 800 community members.



Outreach highlights included the Department holding the first Industry Forum for its portion of the parkway, with nearly 300 attendees (*photo, left*). The agencies continued working with various environmental and other agency personnel, municipal staff and providing briefings and board presentations to elected officials to update them on the project.

Communications were ongoing with environmental advocates, including those serving on the Wekiva River Basin Commission (WRBC). The agencies provided project updates to the WRBC in March, August and December (*photo, right*). Due to robust and proactive media relations, the parkway also generated extensive media coverage – including in a national publication, ENR – Engineering News Record – in 2016.



The various outreach strategies resulted in nearly 15,000 people getting direct, accurate information on the Wekiva Parkway. That figure is nearly triple the number of people directly communicated with in 2015.

The total direct outreach figure does not include those using the social media and website as vital sources of project information. The project website www.wekivaparkway.com in 2016 reached a milestone of 153,643 visits by 115,983

visitors since the site launched on June 15, 2012. The site continues to be an invaluable resource for community members interested in the details, benefits and progress of the project.

Project social media pages provided an even greater avenue for getting out important information in the last year. As of December 2016, there were 481 Facebook and 339 Twitter followers. Compared to the end of 2015, that's an increase of 228 followers – or up nearly 111 percent – for Facebook, and 68 more followers, or 25 percent, for Twitter.



Florida Department of Transportation



After decades in the making, the Department on January 20, 2016 made history by opening the first stretch of the Wekiva Parkway, Sections 4A/4B, from County Road 435 (Mount Plymouth Road) near Haas

Road to State Road 46 east of Camp Challenge Road (*photos, left and below right*). Construction began on this three-mile stretch in February 2013. FDOT started with this \$25.48 million section because all of the property needed had been acquired.

Section 4 lies on the 1,600-acre former Neighborhood Lakes property, one of several large parcels purchased for conservation as mandated by the 2004 Wekiva Parkway & Protection Act. Construction is to begin in 2017 on a multi-use trail along Section 4 that will connect to the planned Lake-Wekiva Trail and an extension of the West Orange Trail. The toll is \$0.75 for those with E-PASS or SunPass, and \$1.00, plus a \$2.50 monthly administrative fee, for those without a transponder who pay their toll using Toll by Plate.



The project included a partial interchange at SR 46 and building several bridges. A floodplain bridge in the middle of this stretch provides safe passage under the parkway for wildlife during the dry season. A temporary ramp connects the parkway to CR 435. That temporary connection will be removed once CFX ties Section 2A to the west into Section 4A.

Traffic on the first stretch has been brisk, with 495,428 total trips through the end of November. Tolls on more than 80 percent of the trips have been paid via a transponder; the remainders have used the Toll by Plate program.

FDOT this year advertised the Section 6 Design-Build project, which includes a parallel, non-tolled service road, several wildlife bridges and the new, high-profile bridge over the Wekiva River (photo, right). Selection for that project was scheduled for March of 2017, with the project to kick off in May-June. Actual construction was expected to begin near year's end.



The Department continued right of way acquisition this year and also prepared to start construction in 2017 on Sections 3A/3B and 5, all non-tolled improvements. Sections 3A and 3B will be built as one project, widening State Road 46 from west of US 441 to east of Round Lake Road, and creating a flyover ramp at US 441 for folks trying to go east toward the parkway. Section 5 entails the realignment of a portion of County Road 46A out of the Seminole State Forest, thereby reducing conflicts between vehicles and wildlife.

In December the Department kicked off design of Section 7B, the last non-tolled section, which stretches from east of Orange Boulevard to near International Parkway. Design is scheduled to finish in late 2018, with construction to begin in mid-2019.



Central Florida Expressway Authority

CFX ramped up construction on Sections 1A and 1B, from US 441 near Plymouth Sorrento Road to the planned interchange at Kelly Park Road. Since the summer of 2015, Prince Construction has been building the \$56.1 million Section 1A, and Superior Construction has worked on the \$46.6 million Section 1B.

Bridge work intensified this year. Construction on the bridge near US 441 at the SR 429 Connector Road required temporary lane, ramp and road closures. The contractor during one operation placed 30, 100-foot-long concrete beams at the Connector Road bridge (*photo, above*). This interchange gave the public its first views of project aesthetics including stone relief on walls and piers, “haunched” – or slightly arched – beams and arched pier caps (*photo, right*).



Elsewhere, pile driving, beams, decks and other progress was made at Belgian Street (*photo below, left*) and the low area bridge north of Southfork Drive (*photo below, right*).



CFX’s first parkway paving occurred on Section 1A in the early fall from north of Yothers Road to just south of Ponkan Road. The toll gantry building (*photo, right*) also was completed along this stretch, providing the first glimpse of the rich brown stain and warm tan color that will pervade the corridor once complete.



Subsequently, CFX's contractor successfully detoured traffic off Yothers Road to build a new bridge in that location (*photo below, left*). The road closure allowed excavation to continue building the parkway's "depressed" section.



This parkway stretch of about a mile is 20-30 feet below ground from south of Belgian Street to south of Ponkan Road. Dirt from this stretch was used to elevate the road elsewhere. Lowering the parkway minimizes the visibility and noise for the surrounding community. Traffic was detoured via the new Belgian Street bridge for this operation.

This year Section 1B saw the Kelly Park Road interchange clearly take shape. Following a tremendous amount of drainage and earthwork, crews built bridge walls and began to shape the various interchange ramps. Streetlights and decorative pedestrian railing on the bridges also were put in place.

In June 2016 crews began installing the "haunched," or slightly arched, steel bridge beams across Kelly Park Road (*photo, right*). Installing the 160-foot-long beams required a series of road closures and detours for the cross street.



In late fall, Section 1B crews began paving the mainline (*photos below, left and center*), as well as installing cantilever signs. The first staining and painting of CFX retaining walls occurred on this section in the fall at the Joey McGuckin Road bridge (*photo below, right*). Section 1 is scheduled to open to traffic late spring of 2017.



Before CFX started work on its second half of the parkway in 2016, crews first had to excavate and relocate protected gopher tortoises (*photos, right*). Sections 2A, 2B and 2C began in 2016, yielding a total of 233 gopher tortoises from 522 burrows.



All told on all sections, CFX crews excavated a total of 1,139 burrows to find and safely transfer 619 of the keystone species to state licensed recipient sites in Osceola and Sumter counties.



On January 4, 2016 crews began building the systems interchange on Section 2B. By the end of the year, crews had transformed the area as aesthetic bridge columns and beams (*photo, left and below left*) rose out of the ground for the multi-level interchange at Haas-Ondich and Plymouth Sorrento roads. The contractor, Southland Construction, engaged in extensive earthwork to elevate the parkway in this area. Work on this section has required lowering the speed limit and ongoing flagging operations to safely get equipment across Plymouth Sorrento Road. Bridge abutment walls now flank the side street.

Installing some of the bridge beams at the interchange has required periodic closures and detours on Ondich Road (*photo, below right*). Since the detour route included Kelly Park Road, close coordination has taken place on the maintenance of traffic between the Sections 1B and 2B project teams.



CFX in the summer of 2016 kicked off its final two sections – 2C and 2A – in May and August, respectively. Section 2C extends northwest from the systems interchange, across the Orange-Lake County line and Coronado Somerset Drive, to end at a loop interchange at State Road 46 east of Round Lake Road. GLF Construction is the contractor building this \$49.48 million project.



The loop interchange includes a sprawling, joint-use pond (*photo, left*) to catch runoff from both Section 2C and FDOT Section 3A immediately to the west. Sharing the pond resulted in fewer private properties needing to be acquired for the improvements. Dirt from pond excavations is being used to elevate the parkway elsewhere along this stretch.

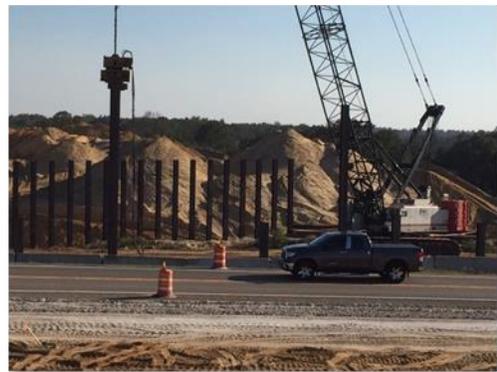
The interchange pond will be “curvilinear,” or naturally shaped, with enhanced landscaping, to help the feature better blend in with the natural surroundings.

Work on Section 2C has involved ongoing flagging operations, traffic shifts and other impacts to SR 46 (*photo, below right*). Close coordination with Coronado Somerset Drive residents has been required for bridge and other work affecting this neighborhood street.

Both design and construction staffs for both agencies have undertaken close coordination to ensure smooth transitions and other efficiencies between Sections 3A and 2C.

Making the SR 46 connection to the parkway closest to Mount Dora, Section 2C has generated excited interest from both city officials and area residents alike.

Section 2A extends west from the systems interchange to connect to FDOT Section 4A at CR 435. This section, which parallels Haas Road, includes the former Pine Plantation property, one of several large parcels purchased for



conservation along the project corridor as required by the 2004 Wekiva Parkway and Protection Act.



Once clearing and demolition were done (*photo, left*), the contractor, Superior Construction, quickly moved into earthwork, drainage and other operations on this \$38.65 million project.

Crews this fall began driving bridge pile at Morris Access Road and in other locations (*photo, below left*).

Once Section 2A successfully connects to FDOT Section 4A, the temporary ramp onto the parkway at CR 435 will be removed (*photo, below right*). The Legislature saw in the Wekiva Parkway and Protection Act limited the number of permanent interchanges to curb development in the natural area. Section 2 is scheduled to open to traffic in spring of 2018.



2017 Update

Community Coordination

Both agencies in 2017 continued to honor the commitment to keep the public engaged and informed about the Wekiva Parkway development and progress. More than 670 people attended design update and pre-construction public meetings for Florida



Department of Transportation (FDOT) Sections 3A & 3B, 5, 6, 7B and 8. Toward the end of the year, a pre-construction public meeting also was being planned for Section 7A, expected to begin work in March of 2018.

The agencies also continued proactive outreach in the three counties and cities along the 25-mile corridor. They

presented project updates to 17 municipal and other boards, and to 12 neighborhood or community groups. We also shared project information and answered hundreds of questions at seven special events including the Mount Dora Arts Festival.

We provided close-up, educational opportunities via tours for industry groups including TEAMFL and the ASCE Central Florida Chapter, as well as for the Lyman High School magnet engineering program. We also worked with Hampton Elementary School's engineering magnet classes, and Zellwood Elementary School as part of the Wekiva Parkway Youth Outreach program.



The agencies also continued making project visuals, schedule and other information easily accessible to the public via the wekivaparkway.com website. The site received more than 60,000 visits in 2017, for a total of more than 214,000 visits since launching in June of 2012.

More people began following the project on social media as the agencies continued a robust posting strategy to get construction and other information out to the community. The number of Facebook followers swelled to 777, and the number of Twitter followers

grew to 391. The majority of posted comments were positive, with growing anticipation and excitement about the pending opening of the parkway to State Road 46.

Central Florida Expressway Authority

The Central Florida Expressway Authority (CFX) made dramatic progress on its parkway sections in 2017, with bridges being topped out at Plymouth Sorrento Road, County Road (C.R.) 435 (Mount Plymouth Road), Ondich Road and State Road (S.R.) 46.



Community excitement was building for the opening of the first CFX section from U.S. 441 to



Kelly Park Road. CFX reached that important milestone by opening its first five miles of the parkway on July 27, 2017. The ribbon cutting celebration drew about 200 officials and community members, as well as heavy, positive media coverage.

Traffic on this section was projected in the first year for 6,300 one-way trips per day. By the end of the year more than 10,000 trips per day were being registered during the work week.

In December of 2017, CFX began to install landscaping along its first stretch of the parkway, therefore honoring the commitment to create an enhanced user experience.



The agency continued working on its remaining five miles of the parkway between Kelly Park Road, C.R. 435 (Mount Plymouth Road), S.R. 46 and Round Lake Road.



Sections 2A, 2B and 2C were on track to open in the spring of 2018. These sections will provide the long-awaited, expressway connection to S.R. 46, creating greater convenience and access to many communities in Lake County. The parkway also plays a central role in the economic development plans for many of the area's municipalities.

A grand opening celebration was being planned for March 31, 2018, including a 5K race and family fun run.

Florida Department of Transportation



The Florida Department of Transportation (FDOT) in 2017 began transitioning more of its parkway sections from final design to construction.

The Department in early June began construction on Section 5, the realignment of C.R. 46A from Arundel Way to S.R. 46 near Camp Challenge Road. The non-tolled, road project will build a new connection for C.R. 46A to S.R. 46, allowing about a mile of C.R. 46A to be abandoned in the Seminole State Forest, as required by the 2004 Wekiva Parkway and

Protection Act. The goal is to reduce collisions between vehicles and wildlife.

Section 6 will stretch six miles along the S.R. 46 corridor – from S.R. 429 in east Lake County to Longwood Markham Road in Seminole County. Construction began in mid-October. The project will largely replace S.R. 46 along this stretch with the elevated parkway and parallel, non-tolled service roads for local travel.

The \$240 million project includes a new, much higher bridge with a slightly arched design and other aesthetics over the Wekiva River. Three bridges will be built over the river for the eastbound and westbound parkway lanes, and for the non-tolled service road.



Environmental precautions – including using extensive turbidity barriers – are being taken to build the bridges over the Wekiva River, which is designated as a National Wild and Scenic River and a Florida Outstanding Waterway.



Crews had begun driving bridge pile and installing sheet pile wall alongside the river in December. FDOT and the project team continued to coordinate closely with the Florida Department of Environmental Protection regarding work at the river. Elsewhere on the project, crews were making good progress clearing the corridor and relocating gopher tortoises to state licensed recipient sites. To date throughout the entire

corridor, nearly 800 gopher tortoises have been excavated from more than 1,600 burrows and safely relocated.

Three other wildlife bridges will allow animals to pass safely between the Seminole State Forest, Rock Springs Run State Reserve and Lower Wekiva River Preserve. The wildlife bridges will total nearly 7,700 feet in length, providing nearly 100 times the safe passageway for animals as the current two wildlife tunnels under S.R. 46 in this area.

A multi-use trail with four scenic overlooks at the wildlife bridges will be included along the service road. This section is expected to enhance access to the adjacent state conservation lands.

In late October, FDOT began work on another non-tolled road improvement, Sections 3A and 3B in Mount Dora. This project will reconfigure the U.S. 441 and S.R. 46 interchange to an at-grade, signalized intersection with a flyover ramp for continuous traffic flow.

Work will include widening S.R. 46 to six lanes from U.S. 441 to Round Lake Road, in anticipation of the heavy traffic trying to get to the parkway. By the end of the year crews were well into clearing the corridor and working on utility relocations and drainage installation.



The Department this year also began soliciting bids for the Section 8 design-build project in Seminole County. This project will connect the parkway to I-4 and S.R. 417, thereby completing the beltway around Central Florida.



Work will include building or enhancing 23 bridges and creating a parkway gateway near International Parkway.

The Department is scheduled to select the design-build team in August of 2018. Work could start in late 2018-early 2019.

The long-term, robust communications helped fuel the development of a project that addresses diverse community and environmental needs and concerns, while also creating a transportation facility that has become a source of community pride and an example of regional collaboration.

The agencies have employed innovative and digital strategies to broaden the public's access to project information. The project website, www.wekivaparkway.com, was on pace to finish 2018 with around 60,000 visits for the year. Social media has been a crucial engagement tool, with the project accounts reaching a total of nearly 2,000 followers, and many more via subsequent shares. The increased use of drone video footage also has helped elevate interest in the project.

With an increasing number of project sections under construction, communications staff has responded to thousands of queries via the project hotline, email address, social media and personal contact. All public interactions were shared with the agencies and project teams, and documented in the project database.

Coordination with project design and construction teams was critical in 2018 to get important information out to officials, the media and other community members, to answer questions and to help resolve public issues. This interaction intensified as the parkway continued to move from design to full-fledged construction.

To ensure the public had ample, advanced warning about lane closures, detours and other construction impacts, the communications team distributed more than **70 construction alerts** in 2018. Alerts are posted on the project website, social media pages and distributed via e-blast to officials, the media and those in the project database. In some cases, fliers were also distributed door to door. The increased outreach is expected to continue in 2019 as FDOT begins work on the last parkway project – Section 7B.



Outreach highlights in 2018 included hosting pre-construction public meetings for Sections 7A and 8, and planning and coordinating community involvement in the Central Florida Expressway Authority's Section 2 grand opening. The event featured the "Running Wild 5K" and Family Fun Run/Walk (*photo, left*) that drew 760 registrants. A couple hundred other folks enjoyed the law enforcement

and high-tech vehicle displays, environmental and community booths, music and a ribbon-cutting ceremony.

Florida Department of Transportation

At the dawn of 2018, FDOT had four project sections under construction: Sections 3A & 3B, 5, and 6.

Sections 3A & 3B



Sections 3A & 3B are being built as one, \$33 million project along State Road (S.R.) 46 from west of U.S. 441 to Round Lake Road, and along U.S. 441 from north of Natoma Boulevard to the Lake-Orange County Line in Mount Dora. These non-tolled, road improvements – including six-laning more than 3 miles of S.R. 46 and U.S. 441 – are being made in anticipation of

the increased traffic trying to get to the parkway.

Work includes converting the U.S. 441 / S.R. 46 interchange into an at-grade, signalized intersection with a flyover ramp (*photo, above*), as well as utility work, installing medians, pedestrian improvements, drainage and other roadway features.

In anticipation of pile driving and other construction activities that might result in vibration, the public involvement coordinator (PIC) and staff in 2018 coordinated **25 pre-vibration assessments** of properties within a certain distance of the select activities. PIC staff handled communications and scheduling the assessments with homeowners, landlords and realtors, and the contractor, geotechnical subconsultant and construction, engineering and inspection (CEI) staff.

Critical path construction early this year focused on building a temporary, at-grade intersection to handle traffic, so the old U.S. 441 overpass could be demolished. The new flyover bridge and other permanent intersection improvements could then be built.



The new traffic pattern introduced a traffic signal (*photo, right*) to motorists who were used to free-flowing U.S. 441 traffic passing over S.R. 46. The PIC worked closely with the FDOT Public Information Office staff on an education campaign to alert the community to the change.

Several media releases featuring a graphic of the new traffic pattern were distributed over the months leading up to the operation. A number of local print and broadcast media outlets helped to get the word out to the community.



Diversion information was posted numerous times on the project website, Facebook and Twitter pages, and was highlighted in numerous officials' and community presentations.

The traffic diversion was completed in April of 2018. Crews subsequently began demolishing the old S.R. 46 / U.S. 441 bridge (*photo, above*), and continued removing the old interchange embankments. This activity required ongoing, advanced communication to the public about the nighttime S.R. 46 closures and detours needed to remove the overhead structures.

Following the demolition, crews intensified building the new flyover bridge columns and retaining walls (*photo, right*). The structures feature the characteristic parkway stone relief, and will be eco-stained in a variegated pattern in warm browns and tans to give a more natural, rustic appearance. Flyover bridge beams will be painted deep green to help blend into the surroundings.





In November, crews were ready to begin installing the large, U-shaped beams for the flyover bridge. The beams ranged from 120 feet long on each end by the abutment walls, to 231 feet long spanning over S.R. 46 (*photo, left*). Half of the beams were up by the end of December. The operation required notifying the

community each week about the latest schedule for the nighttime S.R. 46 road closures and detours needed to place and secure the beams.

Elsewhere, crews focused on widening the S.R. 46 corridor to the north throughout the project limits. This included earthwork, excavating ponds, and conducting extensive underground utility and drainage work.

Frequent communications to the public were needed as lane closures were required to allow pipe crews to cross S.R. 46, side streets and driveways. The same was true when crews began installing road base, curb and asphalt.

Traffic is slated to move onto the new, permanent westbound lanes of S.R. 46 (*photo, right*) by spring of 2019. This will allow the rebuilding and widening of the south side of the corridor.



Other construction traffic impacts included extended closures of Sabastian Street and others to install drainage and other utilities, and to rebuild the entrances. Traffic shifted onto temporary lanes on Round Lake Road at S.R. 46 in August to allow construction of the opposite side of the road.

Crews also permanently closed Stanley Bell Drive near S.R. 46 and U.S. 441, due to its proximity to the permanent intersection. A cul de sac is being built in that location. Access to residences remains via adjacent side streets.

All told in 2018, PIC staff distributed more than two dozen construction alerts to the public for activities on this section. Work began on Sections 3A and 3B on October 30, 2017, and is scheduled to finish in summer of 2020.

Section 5

Section 5 is a \$9.88 million, non-tolled, road improvement to relocate about a mile of C.R. 46A out of the Seminole State Forest. The change was among environmental protections mandated by the 2004 Wekiva Parkway and Protection Act to improve habitat connectivity and reduce the risk of conflicts between vehicles and wildlife.

Crews since June 5, 2017 have been building the new C.R. 46A alignment for 2.5 miles from north of Arundel Way to connect to S.R. 429, east of Camp Challenge Road, in east Lake County. Part of the new, two-lane roadway is “depressed,” or built below ground, and a vegetative buffer will be included to minimize noise and visibility impacts to the adjacent community.



The project includes extensive utility coordination, as well as close communication with adjacent major stakeholders: Lake County Public Works, Encore Farms, the Red Tail community and Camp Challenge. Public communications early on included not only letting drivers know about S.R. 46 lane closures, but also ensuring coordination to avoid conflicts with the adjacent Section 6 project operations along S.R. 46 to the east.



Work in December included opening the new signalized T-intersection between the realigned C.R. 46A and S.R. 46 (*photo, left*). The PIC staff provided advanced notification using various communications channels about the new traffic pattern, which requires motorists to stop at a new flashing traffic signal before continuing on S.R. 46, in this area to be known as Sorrento

Avenue. The change also provides new S.R. 46 access to Camp Challenge Road.

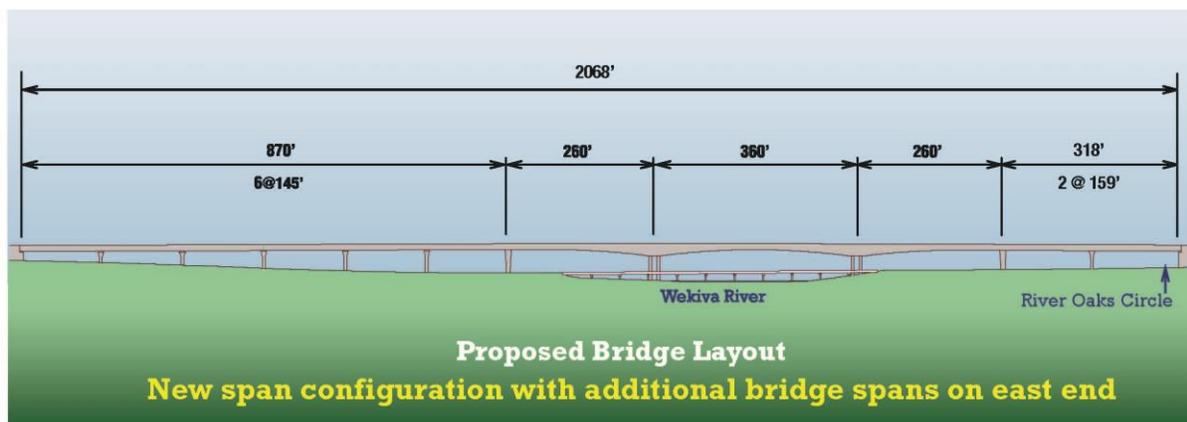
Section 5 construction also involves road widening, installing medians, and building a trail along part of S.R. 46. Work on this section is expected to finish by late 2019.

Section 6

Section 6 took huge leaps forward in 2018. This parkway stretch features extensive wildlife protections that will pass between state parks and across the Wekiva River. This \$232.4 million project involves 6 miles of limited access toll road that will be largely elevated along the existing S.R. 46 corridor. The project extends from the S.R. 429 interchange, east of Camp Challenge Road, to near Longwood-Markham Road in Sanford.

The parkway on this section will be paralleled by a non-tolled, service road for local travel, and a multi-use trail. The trail is expected to enhance access to the adjacent state conservation lands.

While crews this year continued clearing the corridor, the PIC team communicated to the public the schedule for confined, on-site debris burns. All controlled burns were coordinated closely with the Florida Forest Service and Wekiwa Springs State Parks managers.



One of the parkway's signature features is being built along Section 6 – a new, much higher Wekiva River crossing with enhanced aesthetics (*photo, above*). The 60-foot tall bridge puts the deck in the tree canopy to visually buffer it from surrounding communities. The higher crossing will open the river for an enhanced user experience by kayakers and canoeists. Animals will be able to pass safely underneath along the riversides, as opposed to now having to cross S.R. 46.

Three bridges – one for the service road and one each for eastbound and westbound parkway traffic – will be built (*photo, below*), each designed to span the river channel, with piers only on the riversides.

The current S.R. 46 bridge has eight piers in the river. This bridge will be removed once the service road bridge is completed and traffic moved onto it in 2019. Removing the existing bridge is expected to improve the river's hydrology or flow.



Extensive coordination with local, state and national environmental agencies, environmental advocates and other stakeholders went into the concept for the Wekiva River bridges. Extreme care was taken to minimize the impacts of the bridge design, and to try to ensure that it complemented the "outstandingly remarkable values" of this National Wild and Scenic River.



Crews in 2018 began building the non-tolled, service road bridge. To protect the river, which is also designated as a Florida Outstanding Waterway, crews are using "top down construction." No activity or construction equipment will be working within the river channel. The bulk of the span work is being done from the top of the columns or piers.

Bridge work started with driving hundreds of concrete foundation piles. Once the foundations were in, crews set about forming the bridge columns or piers (*photos, below*). Work also began on bridge abutment walls, which continue the aesthetic, stone relief found throughout the corridor. The bridge columns feature aesthetic concrete forming meant to emulate the interwoven tree trunks found along the river's edge.



As the columns at the river were topped out, crews set about assembling special, large cranes or “form travelers” (photos below, orange structure) on top to continue forming and pouring the concrete spans. When the top box culvert structure is wide enough, a second form traveler will be assembled atop the same column and the two cranes will extend the spans out in opposite directions – maintaining a careful balance – toward the next columns.



Along with the river bridges, additional Section 6 structures include three wildlife bridges that will allow animals to pass safely between the Seminole State Forest, Rock Springs Run State Reserve and Lower Wekiva River Preserve.



The wildlife bridges are located at the current wildlife tunnels in the area of Rock Springs Run State Reserve (photos, left and below). The two current tunnels have about 80 feet of clearance for animals to pass under S.R. 46.

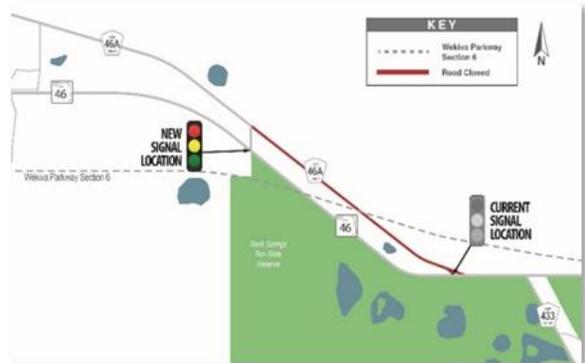


The new wildlife bridges will total nearly 7,700 feet in length, providing nearly 100 times the safe passageway for animals as the current tunnels. All told, Section 6 involves driving approximately 1,900 concrete bridge foundation piles.

This section also will feature wildlife fencing to discourage animals from entering the corridor. The fencing is 10 feet high, with two feet underground to discourage animals from burrowing into the right of way.

As required in the 2004 Wekiva Parkway and Protection Act, about a mile of County Road 46A will be abandoned in the Seminole State Forest to reduce conflicts between vehicles and wildlife as part of this project.

Road work along Section 6 includes building connector roads between remaining sections of C.R. 46A and S.R. 46 to maintain private property access. To open additional areas to parkway construction, crews in July shifted the S.R. 46 intersection at C.R. 46A about a half mile west on S.R. 46 to a new connector road.



The intersection and signal relocation coincided with closing portions of C.R. 46A (*photo, above*). PIC staff provided extensive communications prior to the signal relocation, and also addressed dozens of resulting questions and concerns afterwards.



Throughout the work in this natural and protected area, FDOT and project staff has been coordinating closely with environmental agencies and advocacy groups. That includes close communications with the National Park Service, Florida Department of Environmental Protection's Lower Wekiva River Aquatic Preserve (*photo, left*), the Florida Forest Service, Wekiva River Basin State Parks, Wekiva River Scenic River Management Advisory Committee (WRSRMAC) and the Wekiva River Basin Commission (WRBC).



The project team has been highly vigilant about erosion control and water quality, frequently adding or adjusting turbidity barriers and other measures; employing digital water quality monitoring equipment; providing frequent data and reports; and conducting site visits for FDEP and other agency staff. Agency and PIC staff also provided regular updates to the WRBC and the WRSRMAC (*photo, left*).

The FDOT places a top priority on the safety of the traveling and adjacent public, as well as the work crews, on major transportation projects. With the construction of a higher profile bridge over the Wekiva River, agency and project staff wanted to be sure the “top down construction” process – to be implemented at heights of 60 feet or more – was done in close communication with emergency services personnel.

To follow up a December 2017 safety meeting, the PIC and project team staff coordinated a second emergency services personnel briefing on June 13. The meeting at the project trailer, followed by a site visit (*photos, below*), allowed project staff to explain the latest construction activities and schedule for the Wekiva River bridges to local fire, EMS, wildlife and law enforcement personnel.



The gathering gave emergency services personnel the opportunity to get questions answered about structure materials and access, the contractor’s safety protocols and contacts, as well as other information to allow them to understand and respond to potential incidents during construction. This was particularly important as the contractor at the time was working to top out the high columns for the new Wekiva River service road bridge. The participants also discussed the potential for coordinating future rescue drills at the bridge.

As 2018 was drawing to a close, the public was able to get a better picture of how the many Section 6 renderings they’d seen over the years were becoming reality. Crews were slated to move traffic in the spring of 2019 onto the new service road bridge, and to begin building the eastbound parkway bridge on the north side of S.R. 46. Work in 2019 also will begin on the service roads and roundabouts east of the river.

Section 7A

Work began on the adjacent parkway stretch, **Section 7A**, on April 1 along the S.R. 46 corridor from Longwood-Markham Road to Orange Boulevard in Sanford. The \$108.3 million project is building about 3 miles of limited access toll road, slip ramps to enter and exit the Wekiva Parkway and 12 bridges over side streets. A non-tolled, service road will parallel the parkway for local trips.

Roundabouts are planned as safety enhancements at the intersections under the parkway. Lighting is planned under the bridges and on frontage road approaches to the roundabouts.

Work will include building a 10-foot-wide sidewalk along the eastbound service road, bike lanes, utilities and other roadway features. Construction is scheduled to finish in 2022.

Work started with excavating and relocating gopher tortoises (*photo, right*) out of the way of construction. Gopher tortoises dig deep burrows for shelter in upland habitat throughout Florida. They share the burrows with more than 350 other species, and therefore are a protected, keystone species.



Altogether, 91 gopher tortoises were safely found in 195 burrows and relocated to a state-licensed recipient site.



Other initial work included clearing and grubbing, utility relocations, placing silt fence to protect against erosion, installing drainage and building retention ponds. A major utility coordination item along this section was the relocation of the Florida Gas Transmission line into a new 50-foot easement along S.R. 46 (*photo, left*).

PIC staff got the word out when Florida Gas Transmission (FGT) crews in July began closing Wayside Drive from south of S.R. 46 to Orange Boulevard for pipeline work. Traffic on S.R. 46 had to be detoured via South Orange Avenue and Center Road. It was the first of several such closures and detours needed for utility or project work in that area in 2018.

Construction along this section included the need for numerous S.R. 46 lane closures. Communications staff worked extensively with FDOT Public Information Office staff to get the word out about the closures, particularly when daytime lane closures were switched to nighttime hours. Work also includes driving sheet pile for retaining walls along the north side of S.R. 46 across from Lake Markham Road, (photo, right).



Crews began building a temporary diversion road north of existing S.R. 46 from east of Longwood-Markham Road (C.R. 46A) to west of Glade Road. Then in September, traffic was diverted onto the temporary lanes. This operation allowed portions of existing S.R. 46 to be removed and the service road and parkway work to begin in those areas.



Later that fall, crews began driving bridge piles west of Orange Boulevard. PIC staff provided advanced notification of the pile driving, which can often raise noise and vibration concerns from residents.

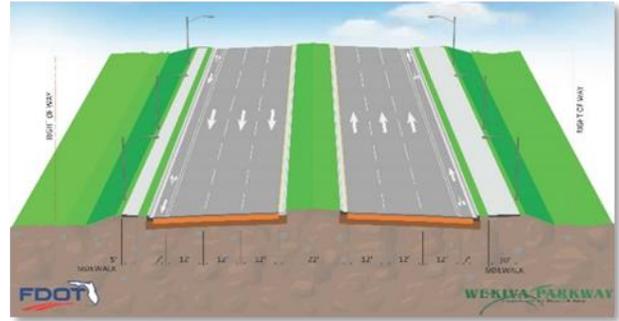
The bridge in this area (photo, left) will carry parkway traffic south off the S.R. 46 corridor and towards Section 8, which will make the connection to Interstate 4 (I-4) and S.R. 417. The service road will pass under the bridge in this location to tie back into traditional S.R. 46 heading east.

In November, PIC staff communicated with the various communities along S.R. 46 as crews began placing utility lines across community entrances and side streets. Significant coordination was required for these operations, particularly with those whose gated entrances were affected.

Future activities include building the roundabouts at cross streets, installing the service road along the south side of the S.R. 46 corridor and moving traffic onto the service road to begin building the elevated parkway.

Section 7B

As design prepared to wrap up, FDOT held a public information meeting on January 30 about the Section 7B design project in Seminole County. This estimated \$19.3 million project will involve 1.31 miles of non-tolled, road improvements, including widening S.R. 46 to six lanes from Orange Boulevard to Wayside Drive-Oregon Street, just west of I-4.



Work is to be done within the existing state right of way, and includes installing medians and turn lanes, sidewalk, bike lanes, traffic signal upgrades, street lighting, drainage, utilities and other roadway features. This project includes a 10-foot wide sidewalk on the south side of S.R. 46, as well as landscaping at some intersections and medians.



The project is slated to be advertised in early 2019, and contractor bids are scheduled to be opened in the spring. Construction is likely to begin in the summer of 2019 and to finish in 2021.

Section 8

FDOT in August selected the design-build team to build the major interchange that will connect S.R. 429 to I-4 and S.R. 417 – finishing Central Florida’s beltway. A \$253.3 million design-build project, **Section 8** involves building the parkway and interchange from Orange Boulevard to east of Rinehart Road in Sanford. This section also includes

building the general use lanes for the future I-4 Beyond the Ultimate project – from south of S.R. 417 to south of S.R. 46.

The 2.63-mile project will include aesthetic walls and other features. A toll gantry will be built on this section. Work will include drainage, lighting under bridges and at the interchange, utilities and other roadway features.

Following a pre-construction public meeting on November 15 attended by nearly 100 people, crews began finding and relocating gopher tortoises (*photo, right*). All told, 26 gopher tortoises were removed from 61 burrows. The reptiles were relocated to a permitted recipient site in Osceola County.



The excavation and relocation effort required clearing vegetation (*photo, below*), using large equipment as well as video equipment to check the burrows for activity. PIC staff coordinated a site visit with the FDOT PIO Manager Steve Olson for WFTV Ch. 9 reporter Raquel Asa to observe the operation and produce a story to update the public.



With the relocation complete, the contractor on December 6 began clearing and grubbing for the project in earnest.

With nearly two dozen bridges to build on this section, crews anticipated beginning driving piles for bridge foundations by the spring of 2019. The project is scheduled for completion in 2022.

With the amount of wildlife in the area, particularly bears, the project team has been coordinating closely with the Florida Fish and Wildlife Conservation Commission. Agency staff provided a wildlife safety briefing at the pre-construction meeting for the project team. The contractor also ensures that anyone working on the project undergoes wildlife safety training.

The PIC staff also has been in communication with area residents concerned for the animals' well-being, as well as those with general questions about this major project section.

Central Florida Expressway Authority

CFX achieved several parkway milestones in 2018 with the opening of its final five miles of expressway on March 31. Sections 2A, 2B and 2C are located between Kelly Park Road and State Road 46, and between Round Lake Road and County Road 435 (Mount Plymouth Road) in northwest Orange County and Lake County.



Work began on the nearly \$168 million parkway sections in 2016 and opened about a year ahead of the original schedule. That was possible thanks to a Federal Highway Administration / US DOT Transportation Infrastructure Finance and Innovation Act (TIFIA) loan that allowed CFX to accelerate the project.



This stretch includes the systems interchange near Plymouth Sorrento Road and Haas Road-Ondich Road (*photos, above and left*), the former Pine Plantation – one of several large parcels purchased for conservation along the corridor – and the Coronado and Mount Plymouth all-electronic toll gantries.

The sections connect to the FDOT's Sections 4A and 4B, opened in 2016. With that connection, the CFX parkway sections now facilitate two, new expressway connections to S.R. 46 for communities throughout Lake, Orange and Seminole Counties.

The latest CFX opening marked another major corridor-wide milestone: more than half of the 25-mile parkway was now open to traffic.

To mark the occasion, the communications team coordinated with the agency to host a grand opening celebration including a 5K race and Family Fun Run/Walk, environmental and community booths, emergency service and high-tech vehicles, music and a ribbon cutting ceremony.

Officials and environmentalists during the ceremony praised the collaboration that went into making sure the parkway helped protect the vital natural resources surrounding the Wekiva River, while helping to complete the beltway. Speakers also lauded the parkway for not only making commutes easier, but also paving the way for bringing in more clean industry and jobs to the region.



More than 760 people registered for the races (*photo, above*); about 200 others attended the ceremony.

Event participants cut across a broad swath of the community. Sponsors and exhibitors included: the cities of Mount Dora and Apopka, Lake County, LYNX, Apopka High School Jazz Ensemble, East Lake Historical Society, Florida Forest Service, East Lake Chamber of Commerce, FHP, Mount Dora High School Honor Guard, local businesses and firms associated with the project.



Holding true to the environmental protections of the project, the race and sponsorships raised \$27,000 (including funds tallied after the event) for the Florida Wildlife Corridor (*photo, above right*). This organization strives to protect 300,000 acres of a statewide network of lands and waters that support wildlife and people by the end of 2020.

CFX later that year landscaped Section 2C from the Lake-Orange County line to S.R. 46 near Round Lake Road. The PIC provided numerous construction alerts to travelers as crews conducted lane closures on S.R. 453 and S.R. 46 to facilitate the plantings.

The agency used drought tolerant and Florida friendly trees, plants and ground cover to enhance the parkway users' experience and honor the long-standing commitment to give the corridor that "parkway feel" (*photo, right*).



CFX's parkway sections have been a game-changer for many in Central Florida. From Orlando to Mount Dora, and from Sanford to the attractions, those using the parkway praise its ease and convenience. Some drivers report shaving 10-15 minutes from their commutes.

Traffic has been steady on the sections opened in 2018. The Coronado toll gantry on this stretch registered more than 1.73 million one-way trips since opening. The parkway in this area has helped relieve congestion on local roads including U.S. 441 and Round Lake Road.

The Mount Plymouth toll gantry – located east of the systems interchange, between Plymouth Sorrento Road and C.R. 435 (Mount Plymouth Road), tallied more than 1.23 million trips through December 30.

Portions of the CFX parkway already have been honored for engineering excellence. The American Council of Engineering Companies of Florida (ACEC-FL)'s 2019 Engineering Excellence Awards acknowledge engineering firms for their ground-breaking applications and intricate projects.

The design of CFX's systems interchange, done by Atkins North America, Inc., was recognized in December with one of eight Grand Awards designated statewide. Judges rated 30 projects and studies on criteria including uniqueness and innovative applications; perception by the public; social, economic, and sustainable development considerations and complexity.



Also in 2018, CFX finished landscaping its first five miles of the parkway (*photo, left*). Sections 1A and 1B, from U.S. 441 to Kelly Park Road in Apopka, opened on July 27, 2017.

Traffic on this first stretch has nearly tripled original projections (6,300 trips per day), with the Ponkan toll gantry registering an average of more than 16,000 one-way trips per day. All told, since the section opened, more than 6.32 million trips had been registered at that gantry (*photo, right*) by December 30, 2018.



This section has alleviated morning tie-ups, for example, on Plymouth Sorrento Road that used to stretch a mile or more north of the Connector Road interchange to S.R. 429.

2019 Update

Community Coordination

CFX and FDOT over the years have remained committed to ensuring that the community has multiple and varied opportunities to provide input into the parkway's development. Outreach activities follow the strategies of the Wekiva Parkway Corridor-wide Community Awareness Plan (CAP). Intensive and ongoing public engagement has continued via 32 public meetings and hearings, well over 700 stakeholder and community group meetings and dozens of special events.

The long-term, robust communications helped fuel the development of a project that addresses diverse community and environmental needs and concerns, while also creating a transportation facility that has become a source of community pride and an example of regional collaboration.



The agencies have employed innovative and digital strategies to broaden the public's access to project information. The project website, www.wekivaparkway.com, finished 2019 with around 50,000 visits for the year. Social media has been a crucial engagement tool, with the project accounts reaching a total of nearly 2,200 followers, and many more via subsequent shares.

With all remaining project sections under construction, communications staff has responded to thousands of queries via the project hotline, email address, social media and personal contact. All public interactions were shared with the agencies and project teams, and documented in the project database.

Coordination with project design and construction teams was critical in 2019 to get important information out to officials, the media and other community members, to answer questions and to help resolve public issues.

To ensure the public had ample, advanced warning about lane closures, detours and other construction impacts, the communications team distributed **72 construction alerts** in 2019. Alerts are posted on the project website, social media pages and distributed via e-blast to officials, the media and those in the project database. In some cases, fliers were also distributed door to door. The increased outreach is expected to continue in 2020 with six FDOT sections under construction.

Outreach highlights in 2019 included hosting a pre-construction public meeting for Section 7B, and coordinating numerous stakeholder meetings.

The project and agencies received a huge honor in July 2019 when the International Bridge, Tunnel and Turnpike Association (IBTTA) announced that CFX, FDOT, and Florida's Turnpike Enterprise (FTE) were jointly awarded the 2019 Toll Excellence Award for Social Responsibility for their work helping to protect the wildlife and other natural resources surrounding the Wekiva River during development of the parkway.



The 2019 Toll Excellence Awards were formally presented during IBTTA's 87th Annual Meeting and Exhibition, September 15-17, 2019 in Halifax, Nova Scotia, Canada.

“Central Florida Expressway Authority, Florida Department of Transportation – District Five and Florida’s Turnpike Enterprise have been selected for their work together on the development and construction of the \$1.6 billion Wekiva Parkway, helping to alleviate congestion, handle increased traffic volumes – while protecting the area’s wildlife and natural resources,” said Patrick Jones, Executive

Director and CEO of IBTTA. “Each award winner has taken on a tough transportation challenge and worked with partners to find a practical solution. We’re incredibly proud of the work they’ve done to represent our industry. On behalf of the transportation community, we congratulate these three Florida transportation agencies on this well-deserved recognition.”

Staff were on hand to accept the award and speak on behalf of the endeavor.



Florida Department of Transportation

At the dawn of 2019, FDOT had six project sections under construction: Sections 3A & 3B, 5, 6, 7A, and 8. Section 7B began construction in July 2019.

Sections 3A & 3B

Sections 3A & 3B are being built as one, \$33 million project along State Road (S.R.) 46 from west of U.S. 441 to Round Lake Road, and along U.S. 441 from north of Natoma Boulevard to the Lake-Orange County Line in Mount Dora. These non-tolled, road improvements – including six-laning more than 3 miles of S.R. 46 and U.S. 441 – are being made in anticipation of the increased traffic trying to get to the parkway.

Work includes converting the U.S. 441 / S.R. 46 interchange into an at-grade, signalized intersection with a flyover ramp, as well as utility work, installing medians, pedestrian improvements, drainage and other roadway features.

Work continued to build the new flyover bridge columns and retaining walls. The structures feature the characteristic parkway stone relief, and will be painted in a variegated pattern in warm browns and tans to give a more natural, rustic appearance. Flyover bridge beams will be painted deep green to help blend into the surroundings.



Installation of large, U-shaped beams for the flyover bridge was completed in 2019. The beams ranged from 120 feet long on each end by the abutment walls, to 231 feet long spanning over S.R. 46. The operations required notifying the community each week about the latest schedule for the nighttime S.R. 46 road closures and detours needed to place and secure the beams.



The first half of 2019 saw widening of the S.R. 46 corridor to the north throughout the project limits come to a completion. Paving operations in the spring allowed crews to shift all S.R. 46 traffic to the future westbound lanes so that similar widening could be performed on the south side of the corridor. Work on the south side included earthwork, drainage, and even paving.

A robust public information effort was required for the traffic shift to notify residents and businesses along the south side of the corridor that their driveways would be extended to reach the new lanes.

Frequent communications to the public were also needed as lane closures were required to allow

pipe crews to cross S.R. 46, side streets and driveways. The same was true when crews continued installing road base, curb and asphalt.

Side streets such as Natoma Boulevard were closed and then reopened to construct the new tie-in to U.S. 441. The extended detour required the Summerbrooke community to use the S.R. 46 entrance only. Staff coordinated with the neighborhood HOA to trim trees and other vegetation to allow paving crews in to reopen Natoma.

Installation of the highly-anticipated sound wall at the Southernaire community began in earnest. The sound wall will reduce noise for the high-density community.

All told in 2019 staff distributed more than 20 construction alerts to the public for activities on this section. Work began on Sections 3A and 3B on October 30, 2017, and is scheduled to finish in summer of 2020.

Section 5

Section 5 is a \$9.88 million, non-tolled, road improvement to relocate about a mile of C.R. 46A out of the Seminole State Forest. The change was among environmental protections mandated by the 2004 Wekiva Parkway and Protection Act to improve habitat connectivity and reduce the risk of conflicts between vehicles and wildlife.

Crews since June 5, 2017 had been building the new C.R. 46A alignment for 2.5 miles from north of Arundel Way to connect to S.R. 429, east of Camp Challenge Road, in east Lake County. Part of the new, two-lane roadway is “depressed,” or built below ground, and a vegetative buffer will be included to minimize noise and visibility impacts to the adjacent community.

Traffic on S.R. 46 was placed onto the new alignment through the project in mid-2019 following installation of a new traffic signal to handle new ramps coming off S.R. 429. Shortly thereafter, on October 31, 2019, the realignment of C.R. 46A opened to traffic.



Activation of the previously installed signal at the T-intersection was completed. Crews finished out 2019 with punch-list items and other activities such as drainage.

Extensive coordination continued with local stakeholders, including the Red Tail community. A new entrance was constructed for the community's C.R. 46A access. Communication with the public included efforts to inform them about temporary access via Sahara Court while the permanent extension to the new C.R. 46A access was completed.

A separate landscaping project for this section will be let in May 2020, pending unforeseen circumstances. Landscaping will include drought-

tolerant and Florida-friendly specimens.

Section 6

Section 6 continued with immense progress in 2019. This parkway stretch features extensive wildlife protections that will pass between state parks and across the Wekiva River. This \$232.4 million project involves more than 6 miles of limited access toll road that will be largely elevated along the existing S.R. 46 corridor. The project extends from the S.R. 429 interchange, east of Camp Challenge Road in Sorrento, to near Longwood-Markham Road in Sanford.

The parkway on this section will be paralleled by a non-tolled, service road for local travel, and a multi-use trail. The trail is expected to enhance access to the adjacent state conservation lands.



Roadway and bridge construction accelerated in 2019.

One of the parkway's signature features is being built along Section 6 – a new, much higher Wekiva River crossing with enhanced aesthetics. The 60-foot tall bridge puts the deck in the tree canopy to visually buffer it from surrounding communities. The higher crossing will open the river for an enhanced user experience by kayakers and canoeists. Animals will be able to pass safely underneath along the riversides, as opposed to now having to cross S.R. 46.

Three bridges – one for the service road and one each for eastbound and westbound parkway traffic – were under construction, each designed to span the river channel, with piers only on the riversides.

By the end of 2019, the non-tolled, service road bridge was nearly complete. To protect the river, which is also designated as a Florida Outstanding Waterway, crews are using “top down construction.” No activity or construction equipment is working within the river channel. The bulk of the span work is being done from the top of the columns or piers.

Public outreach to inform about the imminent traffic shift onto the service road bridge began in December. Communities such as Wekiva River Oaks, Wekiva Park Drive, and Wekiva Pines were advised of significant access changes. Wekiva Pines and neighboring homes on existing S.R. 46 would have their own access road on the existing S.R. 46 pavement (to be renamed Bear Pond Drive.)

Officials in both Seminole and Lake counties were notified to prepare for school bus impacts, garbage collection pattern changes, and the homes that required address changes.

The existing S.R. 46 bridge has eight piers in the river. This bridge will be removed in early 2020. Removing the existing bridge is expected to improve the river's hydrology or flow.

Extensive coordination with local, state and national environmental agencies, environmental advocates and other stakeholders went into the concept for the Wekiva River bridges. Extreme care was taken to minimize the impacts of the bridge design, and to try to ensure that it complemented the “outstandingly remarkable values” of this National Wild and Scenic River.



Along with the river bridges, additional Section 6 structures include three wildlife bridges that will allow animals to pass safely between the Seminole State Forest, Rock Springs Run State Reserve and Lower Wekiva River Preserve.

The wildlife bridges are located at the current wildlife tunnels in the area of Rock Springs Run State Reserve. The two current tunnels have about 80 feet of clearance for animals to pass under S.R. 46.

The new wildlife bridges will total nearly 7,700 feet in length, providing nearly 100 times the safe passageway for animals as the current tunnels. All told, Section 6 involves driving approximately 1,900 concrete bridge foundation piles.

2019 saw a big leap forward when S.R. 46 traffic was shifted to the completed service road Wildlife Crossing 2. This series of bridges between natural areas required traffic to be shifted north. A portion of old S.R. 46 remains for local property access in this area, renamed Deerwood Farms Road. Public outreach in preparation for this shift was also robust, with flyer distributions and communications about address changes a top priority.

This section also will feature wildlife fencing to discourage animals from entering the corridor. The fencing is 10 feet high, with two feet underground to discourage animals from burrowing into the right of way.

As required in the 2004 Wekiva Parkway and Protection Act, about a mile of County Road 46A will be abandoned in the Seminole State Forest to reduce conflicts between vehicles and wildlife as part of this project.

Throughout the work in this natural and protected area, FDOT and project staff has been coordinating closely with environmental agencies and advocacy groups. That includes close communications with the National Park Service, Florida Department of Environmental Protection's Lower Wekiva River Aquatic Preserve, the Florida Forest Service, Wekiva River Basin State Parks, Wekiva River Scenic River Management Advisory Committee (WRSRMAC) and the Wekiva River Basin Commission (WRBC).

The project team has been highly vigilant about erosion control and water quality, frequently adding or adjusting turbidity barriers and other measures; employing digital water quality monitoring equipment; providing frequent data and reports; and conducting site visits for FDEP and other agency staff. Agency and PIC staff also provided regular updates to the WRBC and the WRSRMAC.

Section 7A

Work began on the adjacent parkway stretch, **Section 7A**, on April 1, 2018, along the S.R. 46 corridor from Longwood-Markham Road to Orange Boulevard in Sanford. The \$108.3 million project is building about 3 miles of limited access toll road, slip ramps to enter and exit the Wekiva Parkway and 12 bridges over side streets. A non-tolled, service road will parallel the parkway for local trips.

Roundabouts are planned as safety enhancements at the intersections under the parkway. Lighting is planned under the bridges and on frontage road approaches to the roundabouts.

Work includes building a 10-foot-wide sidewalk along the eastbound service road, bike lanes, utilities and other roadway features. Construction is scheduled to finish in 2022.

Section 7A began the year in earnest with pile driving and other activities requiring vibration and settlement monitoring of homes in Walden Cove.

FDOT announced in April that the contractor responsible for building Section 7A, Astaldi Construction Corporation, had voluntarily defaulted on four projects throughout the state, including this section of the Wekiva Parkway project.

A new contractor to finish construction of Section 7A was selected in May. SEMA Construction, Inc. was the general contractor selected to complete the work. Crews resumed activities on June 3 following a brief lull.

Work on this section is scheduled to finish in 2022. The completion timeframe for this segment of the parkway remains unchanged.



Following the selection of SEMA, activities resumed and accelerated. Several access changes occurred on the east end of the project. South Orange Avenue and Wayside Drive access from S.R. 46 was permanently closed. With resumption of bridge work at Orange Boulevard, Capri Cove and South Orange Avenue residents were placed on a temporary access road to Center Road in order to exit their communities. In preparation for this

change, a community meeting was held and various correspondence was traded with county officials to ensure school bus routes and trash pickup would be addressed. Staff coordinated closely with Google Maps and GPS services to alter navigation maps to aid in access.

Preparations also began in December for an early 2020 shift of S.R. 46 to a portion of the westbound service road. Staff coordinated with a local church and business for temporary access down the old S.R. 46 roadway.

Section 7B

2019 was a big year for Section 7B as construction kicked off over the summer. Masci General Contractors, Inc., submitted the winning bid of \$17.8 million to do the work over 745 days, as part of a competitive bid process.

FDOT's pre-construction public meeting for this project on July 9, 2019, drew 84 attendees. This meeting was the last of 32 public meetings for the Wekiva Parkway project.

Section 7B is widening State Road 46 (S.R.) to six lanes from Orange Boulevard to Wayside Drive-Oregon Street. The work involves 1.3 miles of improvements, including medians, sidewalk, bike lanes, traffic signal upgrades, drainage, sign and pavement

markings, utilities, and other roadway features. There will be a 10-foot-wide sidewalk installed along the south side of S.R. 46 as part of this project.

Attendees at the meeting at Lakeside United Methodist Church, 121 N. Henderson Lane, were able to view a multi-media presentation and speak directly with staff to get their questions answered and to express their concerns. Among the communities represented were: Lake Forest, Forest Glen, Capri Cove and Wekiva River Oaks.

Questions and comment topics included: Landscaping, requests for “No U-Turn” signage at the median of S.R. 46 at North Henderson Lane, concerns about loss of right turn lanes into and out of the Publix Plaza, and drivers speeding up behind drivers trying to turn. Attendees commented that the project looked good and were appreciative that there would be minimal impacts to traffic during construction.

Among the officials attending were: Jean Jreij and Matt Hassan, Seminole County Public Works; William Morris and others with the Seminole County Sheriff’s Office; and Dennis Miller with Seminole County Fire Rescue.

Initial construction efforts included clearing vegetation between International Parkway, S.R. 46, and Wayside Drive for a planned retention pond. Traffic safety devices were also set up. Work then began to clear the median area in preparation for the first traffic shift.

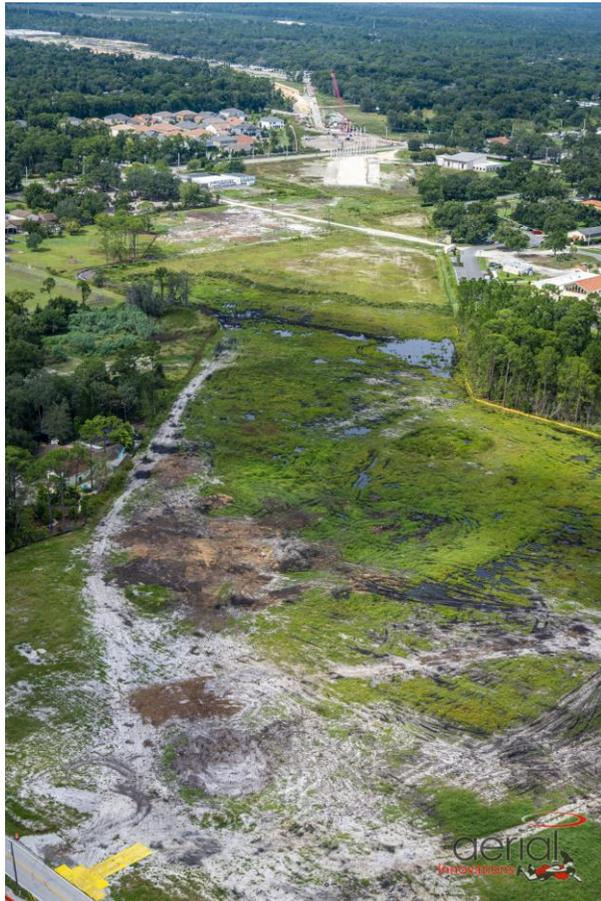
In August, eastbound traffic on S.R. 46 was shifted north onto temporary pavement in the median area so crews could begin widening the south side of the roadway. A robust effort to relocate utilities was underway by the end of 2019.

Section 8

A \$253.3 million design-build project, **Section 8** involves building the parkway and interchange from Orange Boulevard to east of Rinehart Road in Sanford. This section also includes building the general use lanes for the future I-4 Beyond the Ultimate project – from south of S.R. 417 to south of S.R. 46.

The 2.63-mile project will include aesthetic walls and other features. A toll gantry will be built on this section. Work will include drainage, lighting under bridges and at the interchange, utilities and other roadway features.

Work continued in 2019 on clearing and grubbing in preparation for earthwork and bridge work.



Pile driving began across all areas of the project in late 2019.

With nearly two dozen bridges to build on this section, work was spread out from Wilson Road, to International Parkway, and just adjacent to I-4.

In preparation for pile driving and other work efforts, pre-construction surveys were conducted at residences in the Tall Trees community and Ballantrae Apartments. Dozens of homes and units were documented for existing conditions as part of the project record.

Staff kept in close contact with nearby Wilson Elementary School and held a briefing for school leadership to discuss pedestrian safety through the work zone along Wilson Road.

Central Florida Expressway Authority

Having completed the last of their sections in 2018, the Central Florida Expressway Authority (CFX) spent 2019 finishing up landscaping and otherwise operating their sections.

CFX's parkway sections have been a game-changer for many in Central Florida. From Orlando to Mount Dora, and from Sanford to the attractions, those using the parkway praise its ease and convenience. Some drivers report shaving 10-15 minutes from their commutes.



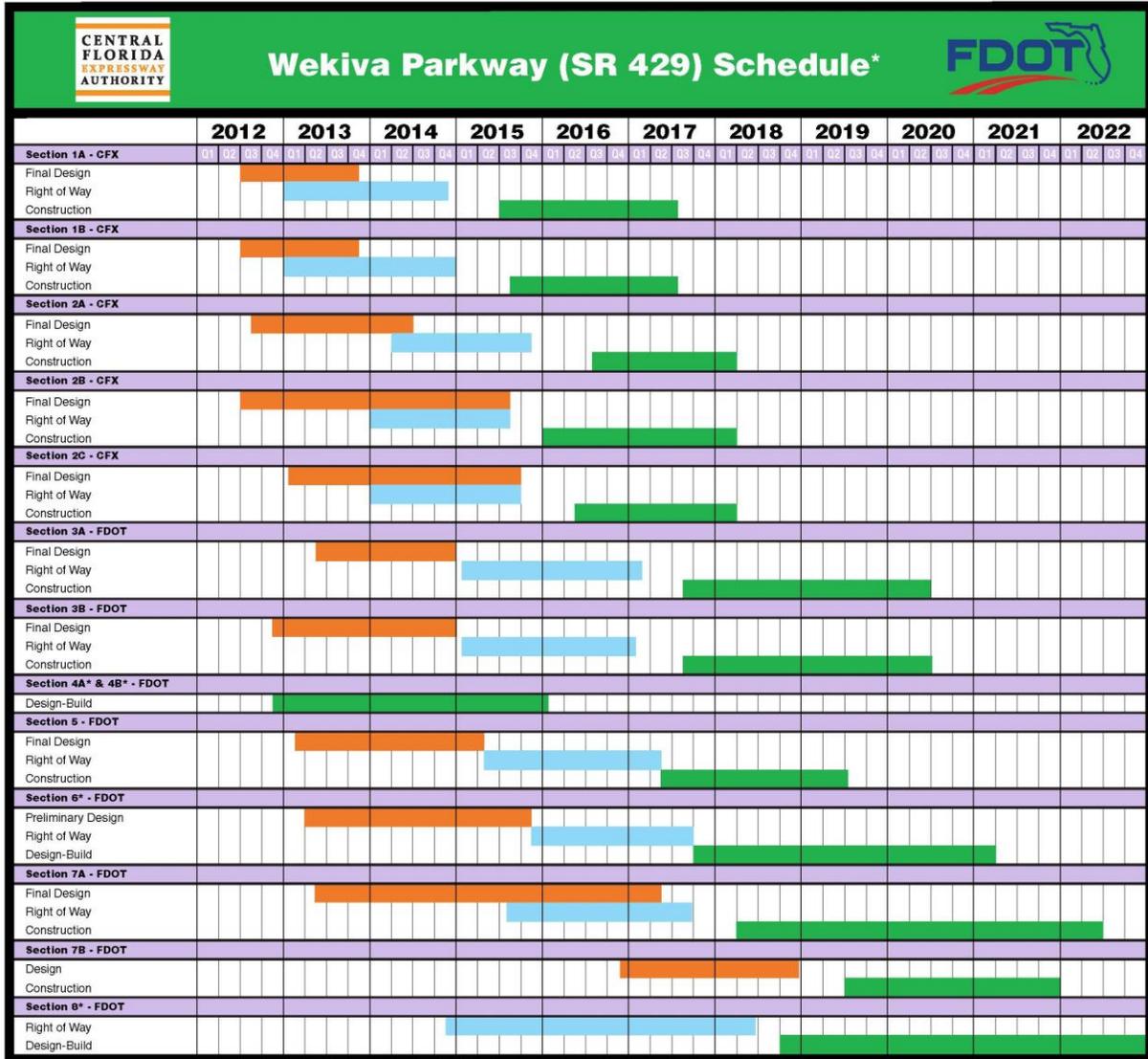
In 2019, CFX installed landscaping on Section 2A of Wekiva Parkway. Countless native cabbage palms were installed to match the existing pattern growing wild outside of the right-of-way.

Traffic on CFX's sections has exceeded original projections. At the Ponkan toll gantry alone, millions of trips have been registered.

CFX's sections have alleviated morning tie-ups, for example, on Plymouth Sorrento Road that used to stretch a mile or more north of the Connector Road interchange to S.R. 429.

Below is the schedule table for each segment.

Table 1. Wekiva Parkway Schedule



*Schedule Subject to Change
 *For more information, visit www.wekivaparkway.com

RECOMMENDATION 2 – INTERCHANGE LAND USE PLANS

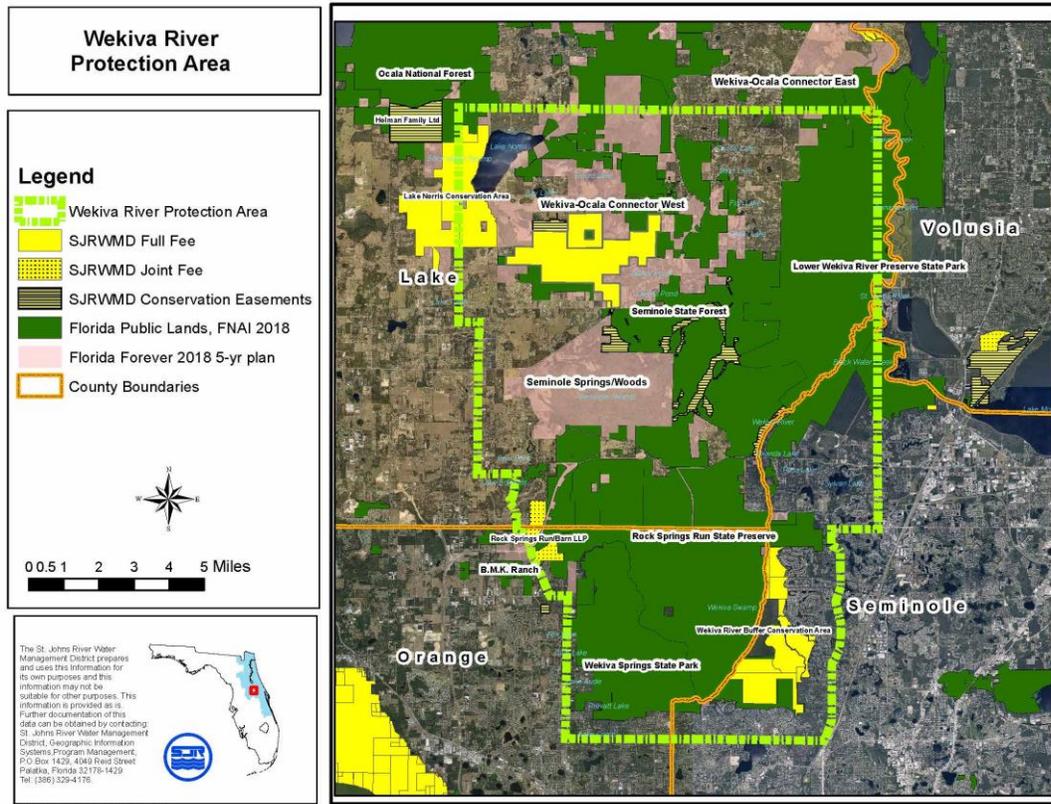
Section 369.321(1) F.S. of the *Wekiva Parkway and Protection Act* implements Recommendation 2 by requiring those local governments hosting an interchange to adopt an interchange land use plan within their comprehensive plans. The interchange plans would address appropriate land use and compatible development, secondary road access, access management, right-of-way protection, vegetation protection and water conserving landscaping, and height and appearance of structures and signage. As noted in the final report of the Wekiva River Basin Coordinating Committee, the primary objectives of the interchange land use plans are to allow for development that is appropriate, compatible and protective of the area’s natural resources.

This requirement was amended by the Wekiva “glitch” bill to provide for a time certain. The time was changed to reflect the sequence of events in the design of the Parkway so that the interchange plans are due one (1) year after those locations have been finalized and approved. By 2017 all jurisdictions have been found to be in compliance.

The requirement for local governments to adopt interchange land use plans has proven to be an effective provision of the *Wekiva Parkway and Protection Act*. The endurance of ILUPs throughout the planning and construction of the Wekiva Parkway may be attributed to the regional collaborative planning process.

RECOMMENDATION 3 – LAND ACQUISITION

Figure 2 – Map of the Wekiva River Protection Area and Conservation Projects



Of the almost 120,000 acres encompassed by the Wekiva River Preservation Area, a little more than 67,000 acres has been acquired for conservation and recreation (FNAI 2018; figure 1). Of that total, the SJRWMD has acquired 11,675 acres; 10,241 in fee or jointly in fee with another agency, and 1,434 acres in conservation easements (also figure 1). There were no new acquisitions in CY 2018. There remain 17,180 acres on the SJRWMD's 5-year Florida Forever acquisition plan that are eligible for acquisition if funding and willing sellers were available.

PRIOR ACQUISITIONS: Section 369.317 (6) F.S. of the *Wekiva Parkway and Protection Act* granted authority to the CFX until December 31, 2010 to act as a third-party acquisition agent in the purchase of the following properties shown in the figure above:

- *Neighborhood Lakes*
- *New Garden Coal*
- *Pine Plantation I & II*
- *Seminole Woods*

In 2005, an agreement was reached with the Wekiva River Mitigation Bank LLC to protect land within the New Garden Coal parcel. In 2007, Neighborhood Lakes was acquired through cooperation between the CFX, the SJRWMD, FDEP, and Orange and Lake County. Pine Plantation I was acquired in 2008 with Florida Forever, FDOT, and CFX funds.

On December 28, 2012, CFX closed on the purchase of 143 of the remaining 243 acres of Pine Planation II. Approximately forty acres will be used for the construction of the parkway and the remaining acres will be conservation land. This satisfies the obligations of CFX and FDOT under the Wekiva Parkway Act.

In addition, the SJRWMD purchased four more properties in the Wekiva Basin since the *Wekiva Parkway and Protection Act* passed: the 103-acre Golden Gem property in Orange County in 2009; and the 17-acre Hubler property in 2009, a 198-acre conservation easement on Sutton Ranch in 2011, and the 596-acre Sun Land Citrus property in 2017, all three in Lake County.

RECOMMENDATION 4 – RECHARGE CRITERIA (ALSO INCLUDES MFLS CUP THRESHOLDS, AND ERP/CUP (CUPCON))

RECHARGE CRITERIA: SJRWMD amended the Wekiva Recharge criteria in 2006 to apply to Type “A” soil recharge lands within the Wekiva Study Area (now called the Wekiva Recharge Protection Basin). Recharge criteria result in post-development recharge volume conditions approximating pre-development.

MFLS: The 2019 MFL Priority List was approved by SJRWMD and transmitted to FDEP in November 2019. Public workshops were held on September 5, 2019 in St. Cloud, and September 11, 2019 in Palatka. The Wekiva River hydrologic and hydraulic models have been peer reviewed under the comprehensive Central Florida Water Initiative (CFWI) peer review process. Revisions to the models, based on peer reviewer and stakeholder comments, are ongoing and expected to be completed in early 2020. MFLs are being developed for the following Wekiva Basin systems: Little Wekiva River at Spring Landing Blvd, the Wekiva River at SR46, Wekiwa Springs, and Rock Springs. The draft reports for the Wekiva Basin MFLs are anticipated to be completed by mid 2020.

CUP THRESHOLDS: In 2009, SJRWMD completed rulemaking regarding water uses below the 100,000 gpd CUP thresholds. The rule amendments apply not only to the Wekiva study area, but also District-wide. The rule amendments implement more water conserving measures for these small water uses. The amendments became

effective in 2009, and are within the lawn and landscape irrigation part of rule 40C-2.042, F.A.C.

ERP/CUP (CUPCON): In 2004, the SJRWMD published a Notice of Rule Development (NRD) to amend its rules to create a consolidated permit (ER/CUP) for projects that require both an ERP and CUP and involve the irrigation of landscape, golf course, or recreational areas. In fall 2010, the District held rule workshops in Sanford, Jacksonville, and Palatka for the consolidated rule. This rulemaking was placed on hold for over a year for the DEP and WMDs (including SJRWMD) to complete the statewide ERP (“SWERP”) rules and the CUP (CUPcon”) rules. The new statewide rules went into effect in 2014. With the completion of the CUPcon rulemaking, the District requested that the CFWI Regulatory Team add this topic to the list of items to be considered for the CFWI rulemaking. After acceptance by the CFWI Regulatory Team, DEP began rulemaking in 2017 to develop consolidated ER/CUP rules in the CFWI area (including the Wekiva Basin). This rulemaking will be completed when DEP completes the CFWI rulemaking.

RECOMMENDATION 5 – AGRICULTURAL NONPOINT POLLUTION

Section 369.318 (9), F.S., of the *Wekiva Parkway and Protection Act* appoints the Florida Department of Agriculture and Consumer Services (FDACS) as the lead agency for coordinating the reduction of agricultural nonpoint pollution sources and continuously enrolling agricultural producers in the Best Management Practices (BMP) Program. BMPs are practical measures that producers can take to reduce the amount of fertilizers, pesticides, animal waste, and other pollutants entering our water resources. FDACS has adopted BMPs for nearly all major agricultural commodities in Florida. FDACS is beginning the process to update the BMP manuals and anticipates adopting a small farms BMP manual. FDACS Division of Forestry and the Division of Aquaculture have also developed BMP manuals for enrolling silviculture and aquaculture operations. Table 2 shows the BMP manuals that are applicable to the Wekiva Basin Study Area.

Table 2. Status of FDACS Best Management Practice (BMP) Programs

OAWP BMP Programs	Rule	Area(s) of Application	Development/Revision Status
<i>Nurseries</i>	5M-6	Statewide applicability	<i>Adopted 2014</i>
<i>Vegetable/Agronomic Crops</i>	5M-8	Statewide applicability	<i>Adopted 2015</i>
<i>Cow/Calf Operations</i>	5M-11	Statewide applicability	<i>Adopted 2009</i>
<i>Specialty Fruit and Nut</i>	5M-13	Statewide applicability - (e.g., blueberries, pecans, tropical fruit)	<i>Adopted 2011</i>
<i>Equine/Horse Farms</i>	5M-14	Statewide - commercial equine operations	<i>Adopted 2012</i>
<i>Citrus</i>	5M-16	Statewide applicability	<i>Adopted 2013</i>
Other FDACS BMPs	Rule	Area(s) of Application	Lead Entity
<i>Silviculture</i>	5I-6	Statewide applicability	<i>In effect - adopted/implemented by Florida Forest Service</i>
<i>Aquaculture</i>	5L-3	Statewide applicability	<i>In effect - adopted/implemented by Division of Aquaculture</i>

The Office of Agricultural Water Policy (OAWP) is responsible for enrolling producers in the agricultural BMP program. As of March 2019, Notices of Intent [to implement BMPs] (NOIs) have been filed for 5,147 agricultural acres in the Wekiva Basin Study Area. Nursery operations comprise the largest share of these enrolled acres. Table 3 shows the agricultural BMP enrollment for the Wekiva Basin Study Area.

Table 3. Agricultural Best Management Practices (BMP) Enrollment as of March 2019

Commodity	Agricultural Acres Enrolled
Citrus	1,221
Cow/Calf	401
Equine	286
Fruit/Nut	418
Multiple Commodities	73
Nursery	2,421
Row/Field Crops	327
Total	5,147

As part of the BMP program, OAWP contracts with Mobile Irrigation Labs (MILs) to evaluate the efficiency and management of irrigation systems. MILs provide recommendations to the producer for improving water use efficiency, which translates into water conservation and cost savings. MIL evaluations are available by request within the Wekiva Basin area. SJRWMD requires all permit applicants for agricultural use types to submit a water conservation plan that contains specific activities designed to conserve water.

The OAWP Implementation Verification process (Chapter 5M-1, F.A.C.) provides the basis for assessing the status of BMP implementation and for identifying enrolled producers who require assistance with BMP implementation. Implementation verification is confirmed by staff through site visits and by surveys submitted by producers.

Site visits to agricultural operations by OAWP staff and contract technicians are the most effective means to determine the status of BMP implementation. These visits also provide an opportunity to identify needs for assistance with implementation, and to

explore potential improvements. Resource limitations prevent site visits from occurring on all enrolled operations every year, and for that reason, site visits are prioritized.

Where a need is identified, OAWP may facilitate technical assistance for the producer from UF/IFAS or other resources, including third-party vendors. In some cases, cost share support may be available. OAWP may also work with producers to identify a suite of agricultural projects and research agricultural technologies that could be implemented on properties where they are deemed technically feasible and if funding is made available. Cost-share funding is being used to implement higher level BMPs, innovative technologies, and regional projects to provide the next added increment of improving and protecting water quality. Data from producer surveys and site visits is used to complete the annual reports on the status of BMP implementation required by s. 403.0675(2), F.S. Table 5 summarizes the status of BMP implementation as of July 1, 2018 for the Wekiva Basin Study Area.

Table 4. Status of BMP Implementation in the Wekiva Basin Study Area as of 2019

Enrollment and Response Summary – Wekiva Basin Study Area
Total agricultural acres enrolled: 5,147
Enrolled ag acres represented in implementation status data: 2,765
Percent of Enrolled ag acres represented in implementation status data: 53%

In terms of NOIs, enrolled acreage fluctuates when parcels are sold, when leases end or change hands, or when production areas downsize or production ceases, among other reasons. When crop types on a specific parcel change, additional NOIs may be required for any new commodities being produced on the parcel, which could result in a reduction in enrolled acreage. OAWP BMP enrollments are delineated in GIS using county property appraiser parcels. Nonproduction areas such as forest, roads, urban structures, and water features are often included within the parcel boundaries. Conversely, agricultural lands in the FSAID only include areas identified as agriculture. To estimate the agricultural acres enrolled in the BMP Program, OAWP overlays FSAID and BMP enrollment data within GIS to calculate the acres of agricultural land in an enrolled parcel.

To address the greatest resource concerns, OAWP prioritizes the enrollment of agricultural land uses. The highest priority parcels include all intensive operations

including dairies and nurseries, parcels greater than 50 acres in size, and agricultural parcels adjacent to waterways.

In addition to tracking agricultural BMP enrollment, OAWP is responsible for the management of the Florida Statewide Agricultural Irrigation Demand (FSAID) geodatabase, which shows agricultural land use throughout the State, as well as projected irrigation demand through 2040. This dataset is updated annually and is currently on its sixth iteration (FSAID VI). Table 4 provides a summary of the agricultural land uses in the Wekiva Basin Study Area. Based on FSAID VI, the total agricultural land within the Wekiva Basin Study Area is 32,293 acres. The primary agricultural land use is hay production, which comprises 10,313 acres or 32% of the Study Area.

Table 5. Agricultural Lands in the Wekiva Basin Study Area in Acres

Land Use	Acres
Aquaculture	34
Citrus	1,755
Fallow*	5,792
Field Crops	639
Fruit (Non-citrus)	145
Grazing Land	16,612
Greenhouse/Nursery	2,018
Hay	386
Livestock	1,958
Other	3,992
Sod	8
Vegetables (Fresh Market)	456
Total	33,795

*Lands categorized as 'fallow' are based on the period of record for the current FSAID VI dataset (2018) and have the potential to come back into agricultural production in a later iteration of the FSAID.

Land use data are helpful as a starting point for estimating agricultural acreage, but there are inherent limitations in the available data. The time of year when land use data

are collected (through aerial photography) affects the accuracy of photo interpretation. Flights are often scheduled during the winter months due to weather conditions and reduced leaf canopies, and while these are favorable conditions for capturing aerial imagery, they make photo interpretation for determining agricultural land use more difficult. Agricultural lands are often fallow in the winter months and can result in inappropriate analysis of the photo imagery.

There is also a significant variation in the frequency with which various sources of data are collected and compiled, and older data are less likely to capture the frequent changes that often typify agricultural land use. In addition, it is not always apparent that an agricultural activity is being conducted on the land. Consequently, DEP relies on local stakeholder knowledge and coordination with FDACS to verify agricultural acreage and BMP implementation.

FDACS uses the FSAID geodatabase to estimate agricultural acreages statewide. FSAID is derived from water management district land use data, and is refined using county property appraiser data, OAWP BMP enrollment data, U.S. Department of Agriculture data for agriculture, such as the Cropland Data Layer and Census of Agriculture, FDACS Department of Plant Industry citrus data, water management district water use and permitting data, as well as field verification performed by the U.S. Geological Survey, the water management districts, and OAWP. Ongoing mapping and ground-truthing efforts of the FSAID dataset provide the best available data on the status of irrigated and nonirrigated agricultural lands in Florida.

RECOMMENDATION 6 – POLLUTION LOAD REDUCTION GOALS

Section 369.318(8) F.S. of the *Wekiva Parkway and Protection Act* requires the St. Johns River Water Management District (SJRWMD) to establish Pollution Load Reduction Goals (PLRGs) for the Wekiva Study Area and to assist the FDEP in adopting total maximum daily loads (TMDL) for impaired water within the Study Area. The PLRG process undertaken by the SJRWMD involved the following steps:

- Analyze new and existing data and identify pollutants that impair the springs
- Develop water quality targets for those pollutants (e.g., nutrient concentrations, coliform levels)
- Evaluate the relationship between current pollutant loadings and acceptable pollutant concentrations
- Determine reductions in load needed to meet specified water quality targets

In 2006, the SJRWMD presented the PLRG studies to FDEP.

In 2007, the TMDL document had been developed and reviews were completed. The first public meeting was held in November 2007, opening the public commenting

period. The TMDLs were adopted in 2008. In 2011, all domestic wastewater surface water discharge permits were revised to reflect the new wasteload allocations from the TMDLs.

In 2009, the Florida Department of Environmental Protection (FDEP) initiated the process to develop a Basin Management Action Plan to implement the new TMDL nutrient reductions, with technical support from the SJRWMD. On October 27, 2015, the Wekiva River, Rock Springs Run and Little Wekiva Canal BMAP was adopted.

The formal adoption of the Wekiva River, Rock Springs Run, and Little Wekiva Canal BMAP was postponed by the FDEP as staff continued to work together with the SJRWMD and local governments to develop projects to address the nutrient loading from Onsite Treatment and Disposal Systems (OSTDS or septic tank/drainfield systems) such as connection to regional wastewater collection systems. An outcome of this effort is a ground water monitoring project for an area with OSTDS located near the Wekiwa Spring system that will more clearly determine OSTDS contributions of Nitrogen to the Wekiwa Spring system. After updating and refining the draft BMAP, FDEP staff from the Division of Environmental Assessment and Restoration (DEAR) held a public meeting to present the final draft BMAP to stakeholders for comment at a public meeting held on September 2, 2015. FDEP accepted comments on the Draft BMAP until September 16, 2015. Subsequently, FDEP Secretary Jonathon P. Steverson adopted the Basin Management Action Plan by Final Order on October 27, 2015. At this time, a separate formal BMAP for the Lakes TMDL waterbodies in the Wekiva Study Area is not planned for development.

Florida Law Chapter 2016-001, authorizing the development and adoption of the Florida Springs and Aquifer Protection Act (Sections 373.801 - 373.813), was signed in January 2016. The act designated 31 Florida springs as Outstanding Florida Springs (OFS, Section 373.802), including Wekiwa Springs. In the basins of an impaired OFS, if OSTDS contribute 20% or more of the nonpoint source nitrogen loads to groundwater, or FDEP determines that it is needed, the act requires that an OSTDS remediation plan be developed.

Since February 2016, FDEP has conducted ten (10) public meetings on technical discussions on possible approaches for addressing nitrogen loads from major sources to the Wekiva basin. As of January 30, 2020, Petitions from 10 individuals and environmental groups are still ongoing for 5 of the 13 basin management action plans (BMAPs) for Outstanding Florida Springs (OFS). The Five springs BMAPs being challenged are Wekiwa and Rock; Volusia Blue; Silver and Rainbow; Suwannee; Santa Fe. The hearing with the Administrative Law Judge (ALJ) at DOAH was held Nov 12-20, 2019. Proposed recommended orders were submitted to the ALJ by all parties on Jan 27, 2020. The ALJ will provide a final recommended order.

Regarding OSTDS and fertilizer reduction, pending BMAPS being effective:

- **New septic systems**—Once a BMAP is effective, within the priority focus area (PFA) adopted as part of the BMAP, conventional septic systems are no longer allowed to be installed on lots of less than one acre, unless the septic system permit applicant can demonstrate that sewer service will not be available within five years. This is a statutory requirement. This is not in effect in Wekiwa and Rock Springs, pending the conclusion of petitioner's challenge to the BMAP.
- **Existing septic systems**—There will be a requirement to address existing conventional systems through one of two options: upgrade the system by adding nitrogen reducing features, or abandon the system and connect to sanitary sewer. This requirement is pending the BMAP becoming effective. This requirement becomes effective five years after the BMAP becomes effective, or after the following three conditions have occurred, whichever occurs first: DOH completes necessary rulemaking, the counties complete master wastewater feasibility studies, and DEP ensures funding to help offset the costs to homeowners. The number and location of which existing systems will be subject varies by BMAP; in Wekiwa and Rock Springs, those existing systems within the PFA located on lots less than one acre will be addressed.
- **Fertilizer**—Within the 2016 Florida Springs and Aquifer Protection Act, the Florida Legislature required county or municipal governments which have springsheds of Outstanding Florida Springs within their borders to adopt at least the state's model fertilizer ordinance by July 1, 2017. This statutory requirement is independent of the BMAPs. (Orange, Lake, and Seminole Counties have all adopted fertilizer ordinances; all of Orange County and the unincorporated areas of Lake and Seminole Counties are covered. Many municipalities in the three counties have also adopted fertilizer ordinances.)

As of January 30, 2020, the City of Orlando and Orange County have requested a Reasonable Assurance Plan (RAP) for Lake Orlando (WBID 3004K) and the Little Wekiva Canal basin. Nutrient TMDLs for Lake Gem and Bethel Lake were adopted on Jan 20, 2020 and are effective Jan 30, 2020. An additional 15 waterbodies have been added to the TMDL prioritization plan with the goal of completion by 2022. A complete list of waters prioritized for TMDL development is available on DEP's web page: <https://floridadep.gov/dear>, on the "TMDL Program" quick link.

RECOMMENDATION 7 – MASTER STORMWATER MANAGEMENT PLAN

Section 369.319 of the Wekiva Act requires each of the local governments in the Wekiva Study Area to develop a Master Stormwater Management Plan (MSMP) for their portion of the Wekiva Study Area. The MSMP is required to:

- Assess existing problems and deficiencies in the community
- Identify projects to meet long-range needs
- Establish priorities to address existing deficiencies
- Establish measures to address redevelopment
- Establish a schedule to complete needed improvements
- Evaluate the feasibility of stormwater reuse
- Include requirements for inspection and maintenance of facilities
- Identify funding sources

In order to assist local governments in applying the information and strategies to their jurisdictions, the SJRWMD conducted a series of workshops with local governments. Jurisdictions were scheduled to submit Stormwater Amendments by the end of 2007. During 2010, Ocoee and Eustis worked with the Department to become “in compliance” while Eatonville worked to respond to the Objections Recommendations Comments (ORC) Report. By 2013 all jurisdictions have been found to be in compliance.

RECOMMENDATION 8 – WASTEWATER TREATMENT STANDARDS

Section 369.318(1) F.S. of the *Wekiva Parkway and Protection Act* requires the Florida Department of Environmental Protection (FDEP) to study the efficiency and applicability of water quality and wastewater treatment standards needed to achieve nitrogen reductions protective of surface and groundwater quality within the Wekiva Study Area. The Department completed its report entitled *A Strategy for Water Quality Protection: Wastewater Treatment in the Wekiva Study Area* in December 2004. In October 2005, the Department initiated rulemaking and a public hearing was held on November 1, 2005 in the City of Apopka. The public hearing was well attended and positive. A briefing on the rule before the Environmental Regulatory Commission was held in January 2006. The rule was adopted in February 2006 and effective of April 2006.

Phase I Nitrate Sourcing Study for the Wekiva Basin, funded by FDEP, was completed during 2008-2009. For the study, the Basin was defined as the combination of the watershed and the springshed, which is not the same as the Wekiva Study Area, an administrative boundary. A companion study by DOH focused on septic systems, while FDEP’s study focused on residential fertilizer impacts on the basin. The final 2010 report updated Phase I with local data and the report used 2004 as base year

calculations. The results are available on the DEP website. Existing domestic wastewater facilities were given five years to meet new limits for total nitrogen and these new limits have been incorporated into each facility permit. Through 2013, local jurisdictions continued to work toward meeting the new standards. These items were addressed in detail at the summer 2014 WRBC meeting.

A presentation on the status of wastewater treatment facility (WWTF) compliance with new nitrogen limits in Rule 62-600.550, F.A.C. was provided to the Wekiva Commission on June 12, 2014 by Christianne Ferraro, P.E. At the time, of the 50 facilities affected, there were ten that had connected to regional wastewater collection systems and all but six facilities were in compliance with the Wekiva Study Area nitrogen limits. Enforcement action was taken with the owners of the remaining six facilities to ensure compliance. In addition, eleven WWTFs that are located in the secondary protection zone had ten years (April 2016) to meet the new limits. Outreach and follow up action was conducted to ensure that those eleven WWTFs were in compliance by April 2016.

An update to the 2014 presentation on wastewater treatment facility compliance with the new Total Nitrogen (TN) limits was provided by Christianne Ferraro, P.E. to the Commission on October 19, 2015. As of December 2015, four facilities had not achieved compliance with the new TN limit and were under enforcement to complete the required upgrades. In addition, the FDEP Central District staff continued to work proactively with the eleven smaller facilities required to meet the deadline by April 2016.

As of December 2016, of the 30 wastewater treatment facilities (WWTF) required to upgrade their treatment processes to meet new Total Nitrogen limits by 2011, 25 were in compliance, and the remaining 5 facilities continued to operate under enforcement and/or compliance assistance, on their way to meeting the limit.

In addition, the smaller facilities that were required to meet the new Total Nitrogen limit of 10 mg/L that became effective in April 2016, worked with the Department to improve their treatment processes. Compliance with the limit was to be achieved by April 2017 due to the “annual average” aspect of the limit. Three of the facilities connected to regional systems, and 8 remained working toward compliance.

During 2017, significant progress was made with domestic wastewater treatment facility compliance with the Total Nitrogen limit as set forth in Rule 62-600.550, F.A.C. At the time, all domestic wastewater treatment facilities within the Wekiva Study Area primary and secondary protection zones were required to meet a more stringent Total Nitrogen limit.

During 2019, the last of the 2014 enforcement cases for facilities not meeting Total Nitrogen limits was closed. There is currently one small Type III facility that is not

meeting its Total Nitrogen limits. The Department will be initiating formal enforcement actions against this facility in order to resolve the exceedances.

The June 2018 Wekiwa Spring and Rock Springs Basin Management Action Plan (Wekiwa Spring BMAP) establishes nitrogen effluent limits that will be applied as an annual average to all new and existing WWTFs within the boundary of the priority focus area designated by the BMAP. See table, below. The effective date for these nitrogen effluent limits is set to be compatible with the ongoing upgrades and compliance orders associated with implementing the Wekiva Study Area nitrogen limits. New effluent standards for existing facilities in the PFA will take effect on July 1, 2028 and will be written into the facilities' permits at the next permit issuance or renewal following the effective date. Facilities must be compliant with the new standards no later than July 1, 2038. The department will be immediately working with facilities to plan for complying with the effluent limits.

Table 6. Wastewater Effluent Standards for the PFA

95% of the Permitted Capacity (gallons per day)	Total Nitrogen Concentration Limits for Rapid Infiltration Basins and Absorption Fields (milligrams per liter)	Total Nitrogen Concentration Limits for All Other Land Disposal Methods (milligrams per liter)
Greater than 100,000	3	3
20,000 to 100,000	3	6
Less than 20,000	6	6

RECOMMENDATION 9 – ON-SITE DISPOSAL SYSTEMS

2004 - 2008: Statutory Direction, First Wekiva Studies, and 2007 Rule Making Efforts

Section 369.318(2) Florida Statutes (F.S.) directed the Florida Department of Health (Department) to address nitrogen reductions in the Wekiva Study Area through appropriate onsite sewage disposal standards. The Department studied the efficacy and applicability of modifying disposal standards as a way of protecting the Wekiva Study Area’s groundwater quality. The Department determined that it was possible to provide higher level onsite sewage treatment and protection through improved technology and, in March 2005, the Department initiated rulemaking.

In August 2005, major concerns were voiced at four public meetings held to review the proposed rule. The primary issue was the cost of onsite sewage system replacements for homeowners. As a result, a decision was made that further studies, including field work, were needed before moving forward with finalizing any rule changes.

In 2006, the Legislature appropriated \$250,000 to the Department and \$250,000 to the Florida Department of Environmental Protection (DEP) to conduct studies on nitrogen loading in the Wekiva area. The Department's Research Review and Advisory Committee (RRAC) provided objectives for the Department's studies. The studies were a collaborative effort with involvement from various agencies and the public.

In 2007, these nitrogen studies were completed, and rulemaking activities recommenced. The proposed rule language called for a 70 percent reduction in nitrogen and the creation of an inventory of all onsite systems in the Wekiva Study Area. The language also addressed existing systems in need of repair and land application restrictions specific to the Wekiva Study Area. In 2008, the Florida Legislature directed the Department to contract with experts to develop cost-effective nitrogen reduction strategies for onsite sewage treatment and disposal systems (OSTDS). They also prohibited any rulemaking until completion of the Florida Onsite Sewage Nitrogen Reduction Strategies (FOSNRS) study.

2009 - 2015: Florida Onsite Sewage Nitrogen Reduction Strategies (FOSNRS) Study

In January 2009, the Department, contracted with a project team comprised of nationally recognized experts led by Hazen and Sawyer. The Department and the RRAC coordinated the FOSNRS project with participation from DEP. The Department's final report:

<http://www.floridahealth.gov/environmental-health/onsite-sewage/research/finalnitrogenlegislativereportsmall.pdf>

was submitted to the Florida Governor and Florida Legislature in December 2015.

2015 - Ongoing: Department Rule Developments for Nitrogen-Reducing Technologies

Since the completion of the FOSNRS study, the Department has pursued a two-pronged approach to make nitrogen-reducing onsite sewage technologies available for broader use in sensitive watersheds: rule development and further technology evaluation. An initial proposal, developed in 2015 in discussions with DEP, created a category of drainfields that include a liner and material to provide nitrogen reduction called in-ground nitrogen-reducing biofilters (INRB). The rule proposal was initially presented to the Department's Technical Review and Advisory Panel (TRAP) on October 22, 2015 and discussed again at meetings on August 31 and December 9, 2016, and again on March 31, 2017. During this process, the Department was informed of potential patent

infringement regarding the use of liners and woody materials in an OSTDS for the purposes of nitrogen reduction. The Department revised the draft rule language to include an INRB without the liner and published the Notice of Proposed Rule on March 22, 2018. The revised rule became effective on July 31, 2018.

The same 2018 rule revision also included language that acknowledges the nitrogen-reducing capabilities of specific Aerobic Treatment Units (ATUs) certified to meet the National Sanitation Foundation's (NSF) Standard 245 (Residential Wastewater Treatment Systems – Nitrogen Reduction). When combined with a 24-inch separation between the bottom of the drainfield and the water table, the NSF 245 ATUs are expected to achieve at least the 65% nitrogen reduction as demonstrated from the INRB system. The Department estimated in January 2019 that over 600 of these systems had already been installed across Florida.

In February of 2019, the Department published a Notice of Development of Rulemaking to provide further revisions to Chapter 64E-6, Florida Administrative Code (F.A.C.) The proposed revisions include (1) incorporating three more INRB variants, including INRBs with a liner, to provide more technology options for nitrogen treatment, (2) revising the requirements on the fine aggregate to be mixed with the nitrogen-reducing media of INRB to include sand and fine sand, to address the difficulty in some parts of the state to obtain finer-texture aggregates, and (3) incorporating the OSTDS remediation plan requirements from DEP's Spring Basin Action Management Plans (BMAPs). This plan prohibits permitting of most new, and the repair or modification of existing (conventional) OSTDS within the BMAP basin boundaries of Outstanding Florida Springs. The revised rule references the OSTDS remediation plans of eight spring BMAPs that are currently in effect, including the Crystal River/Kings Bay, the DeLeon Spring, Gemini Springs, Homosassa and Chassahowitzka Springs Groups, Jackson Blue Spring and Merritts Mill Pond, Upper Wakulla River and Wakulla Spring, Wacissa River and Wacissa Spring Group, and Weeki Wachee Basin. The revised rule is now being reviewed for Department approval.

The OSTDS remediation of existing systems may not begin upon the revised rule becoming effective. This is because DEP's current spring BMAPs do not require OSTDS remediation of existing systems to be implemented until local governments complete their master wastewater treatment feasibility analyses, the Department of Health finishes rulemaking to incorporate BMAP requirements (described above), and a DEP funding program for homeowners of existing systems becomes available.

2016 - Ongoing: Nitrogen-Reducing Technology Evaluation

DEP, in cooperation with the Department, installed a lined drainfield in the Wekiva area (City of Apopka) in August of 2016. The system was monitored monthly for one year and has been monitored quarterly since then.

During the FOSNRS study, seven full-scale passive nitrogen-reducing biofilter OSTDS were installed. Monitoring results during 2013 and 2014 showed that these systems can achieve 65% – 95% nitrogen reduction. To obtain data on the longer-term performance of these systems, two in-tank, one in-ground, and one in-ground and in-tank combined systems have been monitored by Department staff since March 2017. As of December 2019, Department staff have completed eight monitoring events. The results show, six years after installation, that all are still removing on average more than 80% of the total nitrogen (TN). Maintenance efforts have remained low and primarily involved cleaning the septic tank outlet filter. The only operating cost for the systems has been the electricity use from either lift dosing or low-pressure dosing pumps, which was about 0.04 – 0.05 kW/day, costing less than \$3 per month. One in-tank system is a gravity flow system, which does not have any electrical cost.

While most sampling events show TN concentrations in the final system effluent less than 5 mg/L, several elevated TN concentrations were observed intermittently when sampling the two in-tank systems. The Department is planning to investigate this further and is now seeking funding.

Leon County obtained a \$1.5 million Spring and Aquifer Protection grant from DEP and is now creating a pilot project to convert more than 100 conventional OSTDS systems to INRB systems in two subdivisions in the Wakulla Spring basin. The county has been working with DEP and the Department to develop a monitoring project to evaluate a subset of these INRB systems. This pilot project is expected to be implemented in early 2020.

In 2019, Alachua County Environmental Protection Division, with funding from the Suwannee River Water Management District, installed two INRB systems in the Poe Spring State Park in the Suwannee River BMAP basin, and is monitoring them.

The Department is also seeking funding to monitor additional INRB systems in different spring basins across the state to continue to evaluate the performance of the INRB technology under different weather, hydrology, soil, and installation practice conditions.

Additionally, developers and manufacturers of onsite treatment technologies, including those that provide nitrogen reduction, are continuing to develop new OSTDS options for homeowners. Some of these may be effective in Florida. Two manufacturers

obtained innovative system permits in 2017 and 2018 and have installed a few new types of systems for evaluation in the state.

2016 - Ongoing: Florida Springs and Aquifer Protection Act and Basin Management Action Plan Development and Implementation

In January 2016, the Florida Legislature passed Chapter 2016-001, Laws of Florida, creating the Florida Springs and Aquifer Protection Act (FSAPA) (sections 373.801 - 373.813, F.S.). The statute requires DEP to work with the Department, the water management districts, and the Department of Agriculture and Consumer Services to develop Basin Management Action Plans (BMAPs) to implement nitrogen loading control in basins of 24 Outstanding Florida Springs impaired for nitrogen.

Eight spring BMAPs with OSTDS remediation plans became effective in January 2019, requiring newly installed OSTDS to reduce nitrogen. The proposed BMAP and OSTDS remediation plan for Wekiwa Springs and Rock Springs are not in effect as of January 2020. (<https://floridadep.gov/dear/water-quality-restoration/content/basin-management-action-plans-bmaps>).

Section 373.807, F.S. requires DEP to provide funding support for remediating existing OSTDSs. In 2018, DEP established a Septic Upgrade Incentive Program to support upgrading existing OSTDS to nitrogen-reducing systems for onsite systems located in the spring priority focus areas of nine counties, including Citrus, Hernando, Leon, Marion, Orange, Pasco, Seminole, Volusia, and Wakulla (<https://floridadep.gov/springs/restoration-funding/content/septic-upgrade-incentive-program>).

In preparation for the spring BMAP implementations, the Department prepared a set of education materials, including presentations to help educate OSTDS owners about the available onsite system technologies and new OSTDS regulation required by DEP spring BMAPs. Information on the OSTDS permitting process in areas with spring BMAP-OSTDS remediation plans, lists of nitrogen-reducing ATUs certified to meet the NSF 245 standard and of nitrogen-reducing performance-based treatment systems (PBTS) approved to be used in Florida are posted on the Department's Onsite Sewage Program website (<http://www.floridahealth.gov/environmental-health/onsite-sewage/index.html>). By December 2019, about 450 nitrogen-reducing springs protection systems, including more than 200 INRB systems, have been permitted and installed in springs areas.

RECOMMENDATION 10 – COORDINATED STRATEGIES FOR PRESCRIBED BURNING

This recommendation relates to the issue of prescribed burning and the need to continue this practice as a way of mirroring the natural process required for many of the plant communities in the Study Area. While there is no specific statutory requirement, the *Wekiva River Basin Coordinating Committee Final Report* identified the Florida's Division of Forestry as the appropriate agency for leading a coordinated effort on this issue. The Division of Forestry continues working through the Central Florida Prescribed Fire Council (which includes the major agencies and entities identified in the recommendation) to promote education and understanding of the issue.

RECOMMENDATION 11 – COORDINATED PLANNING FOR APOPKA/ORANGE COUNTY

This recommendation addresses the need for coordinated planning and joint agreement on annexation in Northwest Orange County. In response, the City of Apopka and Orange County have developed and adopted (October, 2004) a joint planning agreement (JPA) that provides future areas of annexation, land uses and associated densities and intensities of use. This agreement currently is being used by both parties in addressing the comprehensive planning requirements of the *Wekiva Parkway and Protection Act* and review of individual development proposals.

RECOMMENDATION 12 – COMPREHENSIVE PLAN REVIEW: AVAILABILITY OF CUP CAPACITY

This recommendation is addressed through s369.322 (1) of the *Wekiva Parkway and Protection Act*. It requires the Florida Department of Economic Opportunity (DEO) and SJRWMD to ensure that local comprehensive plan amendments proposing to increase development potential in the Study Area demonstrate that adequate potable water consumptive use permit (CUP) capacity is available. This requirement currently is being applied in the review of comprehensive plan amendments by both agencies.

SJRWMD has determined there were no consumptive use permit capacity issues associated with any of the comprehensive plan amendments thus far.

On November 10, 2015, the SJRWMD Governing Board approved the amended Regional Water Supply Plan and the draft 2035 Water Resources Protection and Water Supply Strategies Plan for five counties in central Florida. This region includes the

Wekiva River and associated springs system and the plans will directly support water resources and water use in the Wekiva River region. The plans are the result of a collaborative effort for the Central Florida Water Initiative (CFWI) that includes three water management districts, FDEP, FDACS, central Florida utilities and stakeholders representing agricultural interests, the business community, local governments, and the environmental community. The plans call for a focus on options to accelerate and increase conservation measures and provide a comprehensive menu of alternative water supply project options, which include reclaimed water, surface water, stormwater, and other projects, to ensure adequate water supplies for the region through 2035.

RECOMMENDATION 13 – WASTEWATER FACILITY PLANS

This recommendation is implemented through Section 369.320 F.S. of the *Wekiva Parkway and Protection Act*. It requires local governments within the Wekiva Study Area to develop a Wastewater Facility Supply Plan for joint planning areas and utility service areas. An important component of this planning is the requirement to update the plans if the TMDLs require reductions in point source pollutants for a basin or is required by legislation for enhanced treatment standards. All local governments have fulfilled the requirements as of 2012.

RECOMMENDATION 14 – LAND USE STRATEGIES

Section 369.321 (3) F.S. of the *Wekiva Act* addresses this recommendation by requiring local governments to establish land use strategies that optimize open space and promote a pattern of development that protects the most effective recharge areas, karst features, and sensitive natural habitats. In March 2005 the former Florida Department of Community Affairs (FDCA), now Florida Department of Economic Opportunity (FDEO) prepared a technical assistance manual for local governments entitled *Guidelines for Preparing Comprehensive Plan Amendments for the Wekiva Study Area*. This manual outlined the requirements, information sources and suggested approaches for meeting the requirements of the Act. In addition, the East Central Florida Regional Planning Council hosted three (3) technical assistance meetings with local governments to discuss the requirements and coordinate development of the amendments among the fifteen (15) jurisdictions. In 2010, Orange County, Ocoee and Eustis came into compliance. Eatonville worked with the Florida Department of Economic Opportunity (FDEO) through 2011 to come into compliance. By 2013, all jurisdictions have been found to be in compliance.

RECOMMENDATION 15 – BALANCING RESOURCE PROTECTION AND ECONOMIC DEVELOPMENT

Section 369.322 (3) F.S. of the *Wekiva Parkway and Protection Act* encourages development initiatives that ensure protection of surface and groundwater resources while promoting compact, ecologically and economically sustainable growth. In response to this recommendation, the Florida Department of Community Affairs (FDCA), now the Florida Department of Economic Opportunity (FDEO) produced the guidelines noted above, which suggest a variety of techniques and tools for guiding balanced growth that can be used by local governments.

RECOMMENDATION 16 – BEST MANAGEMENT PRACTICES

This recommendation is being addressed by the FDACS through their rulemaking activities required by Section 369.318 (9) F.S. of the *Wekiva Parkway and Protection Act* and development of their BMP Manuals referenced in Recommendation 5.

RECOMMENDATION 17 – PUBLIC EDUCATION

Ongoing activities through water conservation planning, SJRWMD Water Conservation Initiative, education presentations and landscaping BMPs.

The District's Blue School Grant Program accepted applications through September 11, 2019 to provide support to school teachers of grades 6 through 12 to enhance student knowledge of freshwater resources issues. \$20,000 in grant funding was available. Thirteen schools received funding to conduct water resource projects for the 2019-20 funding cycle.

The District continues to promote the necessity of water conservation throughout the Central Florida Water Initiative Region, which the Wekiva River Basin falls into. Those efforts include the launch of WaterLess, a campaign focused on sharing water conservation messaging, tips and education through traditional and digital media outlets.



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