

The Wekiva Parkway will be a major transportation facility and the proposed improvements are consistent with the regional plans of the affected communities. Regional development is expected to continue in most of the study area regardless of the Wekiva Parkway being built. However, the proposed roadway improvements will allow safer east-west travel and lessen the traffic pressure on local roads.

This project will result in an improvement to the existing water quality treatment conditions in some areas where the original state and county road construction occurred prior to SJRWMD jurisdiction over water quality, water quantity, and flood protection. Best management practices will be implemented within the project limits to offer treatment and attenuation that replace the existing no-treatment or attenuation conditions. No future direct wetland impacts or water quality impacts are foreseeable for this project.

4.3.5.3 Mitigation

Impacts to wetlands that are unavoidable in the construction of this project will be mitigated in part through the use of funding mechanisms established by the state legislature, and in part through the purchase of mitigation bank credits from a permitted bank adjacent to existing SR 46 right-of-way in east Lake County. Also, the *Wekiva Parkway and Protection Act* states that funds expended by FDOT and the Expressway Authority for conservation lands identified in the Act, such as Neighborhood Lakes and the Wekiva River Mitigation Bank (formerly known as New Garden Coal), “shall be eligible as environmental mitigation”.

The executed Multi-Party Settlement Agreement between the Florida Department of Environmental Protection (FDEP) Division of State Lands, FDOT, the Expressway Authority, and the Wekiva River Mitigation Bank, L.L.C. stipulates that both FDOT and the Expressway Authority shall purchase credits from the mitigation bank in an amount equal to fifty percent (50%) of the wetland mitigation needed by each entity in connection with the construction of their portion of the Wekiva Parkway (SR 429)/SR 46 Realignment project. The agreement also addresses right-of-way for the Wekiva Parkway and provides for a perpetual conservation easement over the mitigation bank property.

The FDOT portion of the Wekiva Parkway (SR 429) project in Lake and Seminole Counties has approximately 70.82 acres of direct wetland impact which could be mitigated under the Central Florida Beltway Mitigation Trust Fund (F.S. 338.250), but the related CR 46A Realignment in Lake County East and the SR 46 Reconstruction and Realignment in Lake County West, as well as the SR 46 widening in Seminole County, may require mitigation for approximately 21.78 acres of direct wetland impact under Senate Bill 1986, pursuant to Section 373.4137 F.S.

For mitigation of approximately 4.96 acres of direct wetland impact from the Expressway Authority portion of Wekiva Parkway (SR 429) in Orange County, use of the Central Florida Beltway Mitigation Trust Fund (F.S. 338.250) is authorized. The Beltway Trust Fund establishes the collection of environmental mitigation fees for the acquisition of lands and for environmental restoration, or creation of projects, of corresponding regional environmental benefit.

Discussions on the mitigation details for this project will be coordinated between the signatory parties to the Multi-Party Settlement Agreement and the permitting agencies. Also, how the environmental mitigation credits available to FDOT and the Expressway Authority (as provided for in the *Wekiva Parkway and Protection Act*) are determined and applied will be discussed and agreed upon.

Coordination with regulatory agencies will continue throughout the permitting phases of the project to further define the impact minimization efforts. The amount of mitigation acreage required for the secondary impact will be determined during the permitting process. Wetland mitigation concepts for impacts along the corridor will be discussed through pre-application meetings with the U.S. Army Corps of Engineers (USACE), FDEP and SJRWMD. Application for the permits will occur during the design phase of the project.

4.3.5.4 Essential Fish Habitat

This project is not located within, and will not adversely affect, areas identified as Essential Fish Habitat (EFH); therefore, an EFH consultation is not required.

No EFH occurs within the project study area. The immediate project study area is not considered to be a breeding or nursery area for marine fish species, nor are the project wetlands and ditches directly connected to tidal-influenced waters; however, at certain times of the year, some marine species such as blue crab, Atlantic stingray, and Atlantic needlefish can be found downstream of the project area at the confluence of the Wekiva River with the St. Johns River.

A field visit and site review was conducted on April 8, 2005 by the study team biologist with a representative of the National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service (NMFS). The NMFS representative stated that NMFS does not have any more stringent water quality treatment criteria than FDEP and the state Water Management Districts, and that meeting the Outstanding Florida Waters quality treatment criteria for the Wekiva River Basin will meet the requirements for NMFS.

FDEP will be the permitting agency for the Environmental Resource Permit. The project will be designed to meet Outstanding Florida Waters quality treatment criteria and no changes to floodplain storage or the downstream hydrologic regime will occur; therefore, the project will not have any direct or indirect negative impacts on EFH. A concurrence letter from NMFS, stating that the project will have no impact on EFH, is included in **Appendix F**.

4.3.6 Aquatic Preserves

The Wekiva Parkway (SR 429) will traverse the Wekiva River Aquatic Preserve. Aquatic Preserves are considered the vested interest of the State of Florida, Board of Trustees through the Florida Aquatic Preserve Act of 1975 (Sections 258.35-258.394 and 258.40-258.46, F.S.). Aquatic preserves are submerged lands that are to be preserved in their natural or existing condition based on their aesthetic, biological, and scientific value to the public and future generations.

The Wekiva River Aquatic Preserve generally includes all state-owned sovereignty lands lying waterward of the ordinary high-water mark of the Wekiva River and the Little Wekiva River and their tributaries in Orange, Lake, and Seminole Counties. The study area for the Wekiva Parkway (SR 429) is approximately one-half mile wide through the Preserve, at the boundary of Lake and Seminole Counties, with the existing SR 46 Wekiva River Bridge centered within the study area. The Proposed Build Alternative for the Wekiva Parkway (SR 429) will utilize the existing Wekiva River crossing location within that study area. Use of the existing crossing location will avoid additional impacts associated with construction of a new expressway through the remaining undeveloped, natural environment of the Wekiva River Aquatic Preserve.

The Proposed Build Alternative will bridge the entire width of the Wekiva River Aquatic Preserve and its adjacent forested wetland. The proposed 1,750-foot long bridges are an expressway structure capable of carrying six lanes of traffic (three lanes in each direction) and a two lane Service Road structure within a 300-foot limited access right-of-way. The bridges will replace the existing 561-foot long Wekiva River Bridge located within the existing FDOT SR 46 right-of-way, which varies in width from 180 feet on the Lake County side of the river to 200 feet on the Seminole County side.

The Proposed Build Alternative will hold the existing south SR 46 right-of-way line, widening to the north through the Aquatic Preserve. Lands adjacent to the existing FDOT SR 46 right-of-way through the Aquatic Preserve include Seminole State Forest adjacent to the north right-of-way line of SR 46 west of the Wekiva River, a parcel owned by Seminole County adjacent to the north right-of-way line of SR 46 east of the river, and four privately owned vacant parcels.

The additional right-of-way width required for the proposed project will necessitate relocation of an existing Sovereign Submerged Lands (SSL) easement adjacent to the existing north SR 46 right-of-way line. The SSL easement was granted to Florida Gas Transmission for a 26" gas pipeline located 48.6 feet below the bottom of the Wekiva River. Both the directionally drilled pipeline and the encompassing easement will be relocated as a result of this project; however, the directional drilling send and receive locations will be located outside of the limits of the Aquatic Preserve and adjacent Riparian Habitat Protection Zone. In addition, the depth of the pipeline relative to the river bottom will be at least the depth of the existing pipeline. For these reasons, relocation of the pipeline will not impact the Wekiva River Aquatic Preserve.

Aquatic Preserves are also considered Outstanding Florida Waters, which have been given additional protection against pollutant discharges that may lower the existing high water quality standards in their current natural state. The Wekiva River is most stringently protected by its own legislation under the *Wekiva River Protection Act* and the *Wekiva Parkway and Protection Act*, Florida Statutes, Chapter 369, Parts II and III, respectively. The Wekiva Parkway (SR 429)/SR 46 Realignment PD&E Study recommendations have been developed to adhere to the design criteria and recommendations prescribed by the above legislation. The proposed project is consistent with the 1987 *Wekiva River Aquatic Preserve Management Plan*, which identified concerns for stormwater quality and protection through preservation of habitats and living conditions in the most natural condition possible.

No adverse impacts to water quality are expected as a result of this project. The stormwater treatment system will be designed to satisfy current stormwater management criteria, including special basin criteria developed for the Wekiva River hydrologic basin. Water quality treatment will be improved over the existing conditions through the Aquatic Preserve and adjacent wetlands, where the Proposed Build Alternative follows the existing SR 46 alignment. SR 46 was constructed before stringent drainage criteria were developed. Consequently, there is currently no treatment of the pollutant runoff from the roadway and bridge. This project will provide stormwater treatment ponds located outside the Preserve boundaries that will provide filtration of the pollutant runoff prior to discharge to the abutting wetlands of the Wekiva River. The possibility of creating wood stork feeding areas at the pond sites near the Wekiva River has been discussed by the PD&E Study team and representatives of FDEP. This option may be further explored during the final design phase of the project.

There is no practical alternative to the proposed bridge construction in the Wekiva River Aquatic Preserve. Any alternative alignment would necessitate filling and/or new bridges across a wider wetland reach which could have far greater impacts. Temporary impacts due to construction will be assessed during the final design phase of the project. The proposed project includes all practical measures to minimize harm to the Wekiva River Aquatic Preserve such as a lengthened and heightened channel span over the river and a lengthened bridge span over the floodplain. The existing bridge does not span the entire length of the Aquatic Preserve or the wetlands abutting the Wekiva River, whereas the proposed bridges would span both. In addition, the filled land supporting the existing bridge abutment located within the Preserve boundaries can be removed, which will restore the wildlife corridor adjacent to the river.

FDEP will be the permitting agency for the Environmental Resource Permit (ERP) which will be completed during the final design phase of the project. In addition to the ERP, a Federal Dredge and Fill Permit, a National Pollution Discharge Prevention and Elimination System Permit, and a Sovereign Submerged State Lands Public Easement will be required during the final design phase.

Coordination concerning the Aquatic Preserve and the proposed Wekiva Parkway project has occurred with provision of the above information to the FDEP Office of Coastal and Aquatic Managed Areas by FDOT.

4.3.7 Water Quality

The proposed project was evaluated for potential impacts to surface water and groundwater resources within the project study area. As part of the assessment, a *Water Quality Impact Evaluation* (WQIE) report was completed for the existing basins within the study area. Checklists from the updated final WQIE (CH2M HILL, June 2010) are included in **Appendix E**.

The proposed stormwater facility design will include, at a minimum, the water quantity requirements for water quality impacts as required by SJRWMD under Chapters 40C-4, 40C-41, and 40C-42 F.A.C. and the Wekiva River Protection Act, Chapter 369, Part II F.S.

The proposed improvements for the Wekiva Parkway (SR 429)/SR 46 Realignment will require permits from federal and state regulatory agencies for wetland impacts, stormwater discharge, treatment and attenuation, and crossing of sovereign submerged state lands. Potentially required permits needed prior to construction include:

- Environmental Resource Permit (ERP), issued by FDEP;
- Sovereign Submerged State Lands Public Easement over the Wekiva River, issued by FDEP;
- National Pollution Discharge Prevention and Elimination System (NPDES), issued by FDEP; and
- Federal Dredge and Fill Permit filed jointly with the ERP, issued by USACE.

The project will be permitted by FDEP with coordination on wetland mitigation plans with the SJRWMD.

Potable Water

This project is not within the streamflow and recharge source zone of an officially designated sole source aquifer. The Wekiva Parkway (SR 429)/SR 46 Realignment study

area lies between the boundaries of the Biscayne Sole Source Aquifer streamflow and recharge zone and the Volusia-Floridan Sole Source Aquifer. Therefore, no mitigation for water quality impacts related to drinking water sources will be required. A letter from the United States Environmental Protection Agency (USEPA) dated September 5, 2008, states that the project does not lie within the boundaries of a sole source aquifer. The September 5, 2008 letter corrects the April 6, 2005 USEPA letter sent in reply to the Advance Notification stating that the project lies within the Volusia Floridan Regional Aquifer. Both USEPA letters are included in **Appendix F**.

Non-potable Water

Stormwater pond sizes have been developed for the purpose of estimating right-of-way requirements only. The actual physical size and configuration of all required water management facilities will be determined during the final design phase of the project. All stormwater facility design will be in accordance with the regulations of the various permitting agencies, including FDEP, SJRWMD, and Orange County. Special water quality criteria associated with the Wekiva River and Lake Apopka Hydrologic Basins will be incorporated, as appropriate.

The water quality impacts in relation to groundwater and surface waters will be temporary and associated with construction. Best Management Practices (BMPs) will be maintained in accordance with F.A.C., Rules 40C-4, 40C-40, and 40C-42. BMPs will be used to minimize water quality impacts during construction and achieve a no-net effect on water quality in the system. A stormwater management plan will be established and implemented during construction in accordance with the USEPA *National Pollution Discharge Prevention Elimination System (NPDES) General Permit* for construction projects greater than five acres of land disturbance. As required by local and state agencies, the stormwater management systems, such as stormwater ponds, are required to be constructed initially, and may serve as sedimentation basins during construction if necessary.

4.3.8 Outstanding Florida Waters

Outstanding Florida Waters are waters that have been given additional protection against both direct and indirect pollutant discharges that may lower the existing high water quality standards in their current natural state, and include those waters designated as State Aquatic Preserves and waters within State Reserves and Preserves. The Wekiva River and its tributaries, including Rock Springs Run, Black Water Creek, and Seminole Creek are designated Outstanding Florida Waters and State Aquatic Preserves. The Wekiva River is a major tributary of the St. Johns River, and merges into the St. Johns River just north of the study corridor along the Seminole/Volusia County Line. Approximately 20 miles of the St. Johns River, from the St. Johns River Bridge (I-4) north to SR 44 west of Deland, is also designated an Outstanding Florida Water and a State Aquatic Preserve.

The majority of the surface waters within the project study area are designated as Class III receiving waters, in accordance with Section 62-302.400, FAC. FDEP classifies existing surface waters according to designated use. Class III is defined as surface waters that are primarily used for recreation, propagation, and maintenance of a healthy, well-balanced population of fish and wildlife.

In addition to the baseline level of stormwater treatment required for Class III receiving waters, an additional level of stormwater treatment is required for systems which discharge to Outstanding Florida Waters. The Wekiva River Protection Act, codified in Chapter 369, Part II F.S. established the Wekiva River Protection Area to protect the natural resources of

the area by enacting standards for water quality, water quantity, and protection of riparian habitat. Chapter 40C-41, F.A.C. establishes additional standards for erosion and sediment control, water quantity, and water quality required for projects constructed within the WRPA. The proposed stormwater management systems within the WRPA have been designed to meet the additional standards for water quality; therefore, water quality is not expected to be degraded or substantially impacted due to stormwater discharge.

The existing bridge over the Wekiva River will be replaced by longer, more elevated spans at the existing crossing location. Measures for erosion and pollution control will be implemented in strict adherence to Chapter 40C-41, F.A.C. and the FDOT's "Standard Specifications for Road and Bridge Construction". Water quality is not expected to be degraded or substantially impacted due to bridge construction.

4.3.9 Contamination

A contamination screening evaluation was conducted for the Wekiva Parkway (SR 429)/SR 46 Realignment PD&E Study in accordance with Chapter 22 of the FDOT *PD&E Manual*. The following section summarizes the results of the screening evaluation documented in the updated final *Contamination Screening Evaluation Report* (GEC, June 2010).

Data pertaining to potential sources of contamination was obtained from FDEP, USEPA and various local agencies in Orange, Lake, and Seminole Counties to identify known or potential contamination sites within the study area. In addition to the literature review, historical aerial photographs were reviewed and site reconnaissance was conducted on multiple occasions in March 2005, June through August 2006, December 2006, and January 2007.

The potential contamination sites identified in the study area were rated as having a "Low, Medium, or High Contamination Risk Potential Rating" or "No Risk" in accordance with the definitions in Chapter 22 of the FDOT PD&E Guidelines. The results of the contamination screening evaluation indicate there are 79 sites with no, low, medium, or high potential for hazardous material or petroleum contamination to the soil and/or groundwater within or near the defined study area. **Table 4-12** lists those potential contamination sites with a risk ranking. The site numbers in the following table correspond to the site numbers assigned to those locations in the *Contamination Screening Evaluation Report*. In that report, the listed sites were evaluated and ranked for potential risk to the Viable Alternatives and the Proposed Build Alternative.

Of the 80 sites with a potential for environmental contamination in the immediate vicinity of the Wekiva Parkway/ SR 46 Realignment study area, 33 were assigned a risk rating of Low, 32 were assigned a risk rating of Medium, and 11 were assigned a risk rating of High. The remaining four sites were assigned a No Risk rating due to the fact that they were outside of the study area.

TABLE 4-12
Potential Contamination Sites in the Study Area

Site No.	Site Name and Address	Risk Ranking
1	Mount Dora Water Treatment Plant, SR 46 and US 441, Mount Dora	Low
2	Grantham Pit C&D Facility, SR 46, Mount Dora	Low
3	Superior Asphalt Company, 444 South Rossiter St., Mount Dora	Medium
4	Florida Natural Stone, 3102 SR 46, Mount Dora	Low
5	Mount Dora Disposal and Fill, 3300 SR 46, Mount Dora	Medium
6	Helena Chemical Company, 21244 SR 46, Mount Dora	Medium

TABLE 4-12
Potential Contamination Sites in the Study Area

Site No.	Site Name and Address	Risk Ranking
7	Komatsu Equipment Company, SR 46, Mount Dora	Low
8	Peeler Truck Service, 21628 SR 46, Mount Dora	Medium
9	Protech Auto Repair, 30940 Suneagle Dr., Mount Dora	Low
10	Smitty's Auto Repair, 30940 Suneagle Dr., Mount Dora	Low
11	Theophilus, 31747 Round Lake Rd., Mount Dora	Low
12	Airang, 6614 Plymouth Sorrento Rd., Apopka	Low
13	Premium Plants, 6707 Plymouth Sorrento Rd., Apopka	Low
14	Ponderosa Nursery, 6441-6447 Plymouth Sorrento Rd., Apopka	Low
15	King's Plants, 6431 Plymouth Sorrento Rd., Apopka	Low
16	World Wide Orchids, 6500 Plymouth Sorrento Rd., Apopka	Low
17	Peckett's, Inc., 6448 Plymouth Sorrento Rd., Apopka	Medium
18	Possible borrow pit, N of Ondich Rd./ W of Plymouth Sorrento Rd., Apopka	Medium
19	Dover's Foliage, 3317 Ondich Rd., Apopka	Medium
20	Tropical Cuttings Plant Ranch, 6014 Ondich Rd., Apopka	Medium
21	Plant Marketing, 3119 W. Kelly Park Rd., Apopka	Low
22	CMC Nursery, 3239 W. Kelly Park Rd., Apopka	Medium
23	Chapman's Orchids and Exotic Plants, 3321 W. Kelly Park Rd., Apopka	Medium
24	JDC Plants/Green Mansion Foliage, 3366 W. Kelly Park Rd., Apopka	Medium
25	William L. Calhoun, 3509 W. Kelly Park Rd., Apopka	Low
26	Apopka Nursery, 4068 Plymouth Sorrento Rd., Apopka	Low
27	H&D Foliage, 4046 Plymouth Sorrento Rd., Apopka	Low
28	Plant Connection, Inc., 3960 Plymouth Sorrento Rd., Apopka	Low
29	Dream House Nursery, 3746 Plymouth Sorrento Rd., Apopka	Low
30	Select Foliage and Flowers, 3600 Plymouth Sorrento Rd., Apopka	Medium
31	S&L Nursery, 3229 W. Ponkan Rd., Apopka	Medium
32	Orange Co. Excavation Pit, E of Zellwood Sta/ W of Plym Sorr Rd., Apopka	High
33	Fields Robinson/ACME Recycling, E of Zellwd Sta/ W of Plym Sorr Rd, Apopka	High
34	Plymouth Landfill, E of Zellwood Station/W of Plymouth Sorrento Rd., Apopka	High
35	BLB Foliage and Cactus, 3092 Yothers Rd., Apopka	Medium
36	Blooming Fields/US Lawns, 1808 Plymouth Sorrento Rd., Apopka	Medium
37	Korus Orchids, 1650 Plymouth Sorrento Rd., Apopka	Medium
38	Father and Son Nursery, 1568 Plymouth Sorrento Rd., Apopka	Medium
39	Stephen H. Griffith, 1362 Plymouth Sorrento Rd., Apopka	Medium
40	Earl Wilson's, 3162 and 3076 Plymouth Sorrento Rd., Apopka	Medium
41	HW Miller, 952 Plymouth Sorrento Rd., Apopka	Low
42	Paul Koptick, Plymouth Sorrento Rd. near Post Office	Medium
43	Kim Vegetables, 2403 Boch Rd., Apopka	Low
44	Top Nursery, 2402 Boch Rd., Apopka	Medium
45	Unnamed Nursery, 2089 Haas Rd., Apopka	Low
46	Penang Nursery, 1909 Haas Rd., Apopka	Medium
47	Tropical Outdoors, 6510 Plymouth Sorrento Rd., Apopka	No
48	Black Bear Nursery, 29240 SR 46, Sorrento	Medium
49	Garden Rebel Nursery/Sims Landscape, SR 46/CR 46A, Sorrento	Medium
50	Paola Tree Farm, SR 46/Lake Markham Rd., Sanford	Medium
51	Florida Fancy Nursery, 6850 SR 46, Sanford	Medium
52	Vaughan's Nursery, 6700 SR 46, Sanford	Medium

TABLE 4-12
Potential Contamination Sites in the Study Area

Site No.	Site Name and Address	Risk Ranking
53	Twelve Oaks RV Resort, 6300 SR 46, Sanford	Low
54	Designing Women Landscaping and Nursery, 6275 SR 46, Sanford	Medium
55	Fair Field Farms Landscaping and Design, 5650 Orange Blvd., Sanford	Medium
56	Citgo/Handyway Food Store, 5690 SR 46, Sanford	Low
57	Exxon/Mobil, 5689 SR 46, Sanford	Low
58	7-Eleven Store #33347, 4900 SR 46, Sanford	Low
59	BP/Amoco, 4800 SR 46, Sanford	High
60	Bill Heard Chevrolet, 127-135 N. Oregon St., Sanford	Low
61	Seminole County Fire Station #34, 4905 Wayside Dr., Sanford	Low
62	Courtesy Ford, 4911 Wayside Dr., Sanford	Low
63	Transmission fluid spill location, 80 Dunbar Ave., Sanford	No
64	AB Graphics, 686 Hickman Circle, Sanford	No
65	Omega Medical Imaging, 671 Hickman Circle, Sanford	No
66	Initial Marine Corps, 650 Hickman Circle, Sanford	Low
67	Harley Davidson, 620 Hickman Circle, Sanford	Low
68	Sunoco, 4730 SR 46, Sanford	High
69	Days Inn, 4650 SR 46, Sanford	Medium
70	Chevron, 4700 SR 46, Sanford	High
71	Former site Cathy's Fruit Stand, I-4 and SR 46, Sanford	High
72	Mobil Lube Express/Car Wash, 101/125 S. Oregon St., Sanford	High
73	David Maus Toyota, 1160 Rinehart Rd., Sanford	Low
74	CarMax, 901 Towne Center Blvd., Sanford	Low
75	Courtesy Honda, 100 Rinehart Rd., Sanford	Low
76	Unnamed Auto Repair Shop, N of Wilson Rd./E of Wilson Elem., Sanford	High
77	Lake Mary Post Office, 800 Rinehart Rd., Sanford	High
78	Barn, LLP Property, 6577 Mt. Plymouth Road, Apopka	High
79	Potential Borrow Pit, I-4 and SR 417, Sanford	Medium
80	CSX Railroad Line, S of SR 46 and E of Round Lake Road, Sorrento	Medium

For the Proposed Build Alternative, few of the identified potential contamination sites are within the proposed right-of-way needed for roadways and stormwater ponds. In Orange County, there are three former landfills between Yothers Road and Ponkan Road, several plant nurseries within or adjacent to the proposed alignment, and a solid waste dumping area on the Neighborhood Lakes property. In Lake County West, there are several industrial or business sites and a landfill adjacent to existing SR 46, as well as the CSX railbed. In Lake County East, there are two plant nurseries, one inside and one adjacent to proposed right-of-way, and two above-ground storage tanks with unknown contents within the alignment. In Seminole County, there are four plant nurseries within or adjacent to the proposed right-of-way, as well as an auto repair facility within the alignment.

The findings of the contamination screening and evaluation are based on preliminary information only and are not intended to replace more detailed studies including individual site assessments and subsurface soil and groundwater investigations. Information regarding potential petroleum and/or hazardous waste contamination sites will be updated, including site evaluations and organic vapor analysis screening/groundwater monitoring if necessary, during the final design phase and prior to construction or right-of-way acquisition.

Estimated areas of contamination will be marked prior to construction. Actual clean-up will take place prior to or during construction, if deemed feasible. Special provisions for handling expected and unexpected contamination during construction will be included in the construction plans package.

4.3.10 Wild and Scenic Rivers

The *Wild and Scenic Rivers Act*, 16 USC 1274 et seq., establishes requirements applicable to water resource projects affecting wild, scenic, or recreational rivers within the National Wild and Scenic Rivers system as well as rivers designated on the National Rivers Inventory to be studied for inclusion in the national system.

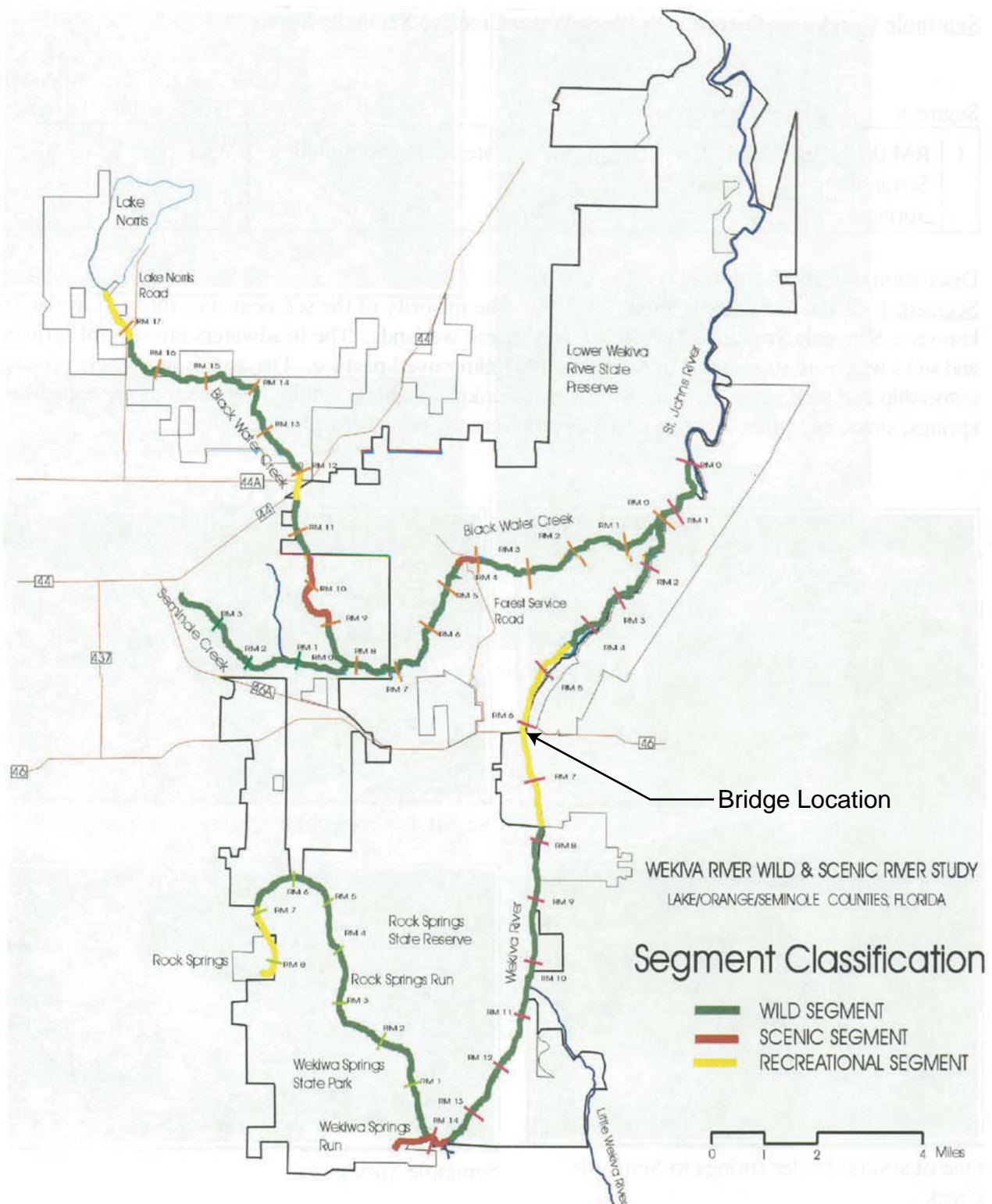
Under Section 7 of the Act, a federal agency may not assist, through grant, loan, license or otherwise, the construction of a water resources project that would have a direct and adverse effect on the values for which a river in the National System or study river on the National Rivers Inventory was established, as determined by the Secretary of the Interior for rivers under the jurisdiction of the Department of the Interior and by the Secretary of Agriculture for rivers under the jurisdiction of the Department of Agriculture.

On October 13, 2000, 41.6 miles of the Wekiva River and its tributaries were included in the National Wild and Scenic Rivers System. The Wekiva River is listed in the National Park Service (NPS) Southeastern Rivers Inventory for Wild and Scenic Rivers. The NPS is the managing agency for the protection of the designated reaches of the Wekiva River which include the Wekiva River from its confluence with the St. Johns River to Wekiwa Springs, Rock Springs Run from its headwaters at Rock Springs to its confluence with the Wekiwa Springs Run, and Black Water Creek from the outflow from Lake Norris to the confluence with the Wekiva River. Of the 41.6 miles, 31.4 miles are classified as “wild”, 2.1 miles are classified as “scenic”, and 8.1 miles are classified as “recreational”. **Exhibit 4-16** shows the locations of the wild, scenic, and recreational segments of the Wekiva River and its tributaries.

The Wekiva River constitutes approximately 14 miles of the total 41.6 miles. Of that total, approximately 11 miles are classified as “wild” and three miles as “recreational”. The draft *Wekiva National Wild and Scenic River Comprehensive Management Plan* defines the segment classifications as follows:

- The “wild” designation is given to rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted.
- The “scenic” designation is given to rivers or sections of rivers that are free of impoundments, with watersheds or shorelines still largely primitive and shorelines largely undeveloped, but accessible in places by roads.
- The “recreational” designation is given to rivers or sections of rivers accessible by road or railroad that may have some development along the shorelines, and may have undergone some impoundment or diversion in the past.

As shown in Exhibit 4-16, SR 46 is centered within the recreational segment of the Wekiva River, which extends approximately one and one-half miles both north and south of the SR 46 Wekiva River Bridge. This three mile stretch of the river encompasses considerable



Source: National Park Service

Exhibit 4-16
Wild & Scenic River Segment Classifications

shoreline development along the Wekiva River, particularly in Seminole County. The study area for the Wekiva Parkway was recommended by the Wekiva Basin Area Task Force based on the “Guiding Principles for Corridor Location”, documented in the *Final Report, Recommendations for Planning and Locating the Wekiva Parkway while Preserving the Wekiva River Basin Ecosystem*, January 15, 2003. The study area in the vicinity of the Wekiva River addresses principles to:

- minimize impacts to habitat and species;
- minimize impacts on springshed and ground water recharge areas;
- minimize direct impact to wetlands;
- avoid, or mitigate if required, impacts on conservation lands, and their proper management;
- minimize impacts on existing neighborhoods and residential communities;
- follow, where feasible, existing road alignments through environmentally sensitive areas; and
- improve the connectivity of existing wildlife corridors.

The Proposed Build Alternative will bridge the Wekiva River and its adjacent forested wetland at the location of the existing SR 46 Wekiva River Bridge. The proposed 1,750 foot long bridges will replace the existing 561-foot long bridge. In addition to spanning the forested wetlands adjacent to the river, the filled land supporting the existing bridge abutment can be removed, which will restore the wildlife corridor adjacent to the river.

The proposed Wekiva Parkway (SR 429) will be included in the *Wekiva National Wild and Scenic River Comprehensive Management Plan* currently being prepared by the consultant to the Wekiva River System Advisory Management Committee (WRSAMC). NPS provides the designated federal official for that plan. The PD&E Study team has coordinated with the WRSAMC consultant for the management plan, providing information on and maps of the proposed project for inclusion in the management plan.

The NPS has provided a preliminary review of the proposed project pursuant to Section 7 of the *Wild and Scenic River Act*. The review was based on project information provided during consultation between FDOT and NPS, and on a site review conducted on February 5, 2009. In a letter dated February 24, 2009, NPS states that “it appears that the project will offer many advantages to the river compared to the existing structure” and that “the results of the preliminary review indicate that any potential direct and adverse impacts associated with the project will likely be limited to construction related activities and the specific design of the bridge over Wekiva River”. NPS has indicated that a formal Section 7 review cannot be conducted until after evaluation of the *Environmental Assessment*, bridge plans, and mitigation commitments. However, Section 4(f) concurrence by NPS is needed during the environmental assessment phase of the proposed project. Therefore, FHWA, FDOT and the Expressway Authority are coordinating with NPS to identify an approach to meet both Section 4(f) and Section 7 requirements. A *Wekiva Wild and Scenic River Addendum to the Programmatic Section 4(f) Evaluation* will then be completed. Consultation letters between FHWA/FDOT and NPS are included in **Appendix F**.

The *Draft Goals and Objectives for the Wekiva National Wild and Scenic River Comprehensive Management Plan* (Pandion Systems, Inc., 2007) are consistent with the “Guiding Principles for the Wekiva Parkway Design Features and Construction” recommended by the Wekiva Basin

Area Task Force, endorsed by the Wekiva River Basin Coordinating Committee, and required by the *Wekiva Parkway and Protection Act*. These goals and objectives include:

- aggressively pursuing conservation easements and land purchases within the Wekiva Basin with priority on those parcels outlined by the *Wekiva Parkway and Protection Act*;
- ensuring that wildlife underpasses suitable for bears are constructed as planned and include fencing to encourage bear use; and
- ensuring that the new bridge constructed for the Wekiva Parkway be designed to limit visual and auditory intrusion on the Wekiva River.

The following paragraphs describe the components of the proposed project that meet the goals and objectives of the management plan.

Conservation Easements and Land Purchases

The portion of the study corridor in east Lake County is within the Wekiva River Protection Area and includes lands within Neighborhood Lakes, Rock Springs Run State Reserve, Seminole State Forest, and Wekiva River Mitigation Bank (formerly New Garden Coal). Both Neighborhood Lakes and the Wekiva River Mitigation Bank were identified for acquisition in the *Wekiva Parkway and Protection Act*. In July 2005, the state acquired a perpetual conservation easement over the mitigation bank to protect the land from future development. The agreement also addresses the required right-of-way for the Wekiva Parkway. In December 2006, the Governor and the Florida Cabinet approved the purchase of Neighborhood Lakes. The acquisition was completed in March 2007. This purchase secures right-of-way for Wekiva Parkway and protects against future development. The land not needed for right-of-way has been secured as conservation lands of the State of Florida.

Wildlife Underpasses

As a part of the Proposed Build Alternative, FDOT proposes to replace the existing western 52-foot wide opening and eastern 26-foot wide opening wildlife underpasses along SR 46 with longer wildlife bridges of approximately 1,960 feet (western bridges) and 4,000 feet (eastern bridges). The existing 561-foot bridge over the Wekiva River will be replaced with longer, higher bridges of approximately 1,750 feet in length. These longer bridges will open up the wildlife corridor between the Rock Springs Run State Reserve and the Seminole State Forest, and will enhance habitat connectivity. Many more species of wildlife will be able to safely move between the two public conservation areas. All of these bridge spans will function as wildlife crossings and will greatly improve the wildlife habitat continuity and movement corridors in the surrounding area, following construction of the Wekiva Parkway.

In addition to the above bridges, an 800-foot bridge will span a large floodplain within the recently acquired Neighborhood Lakes parcels. This bridge will also serve to maintain wildlife connectivity. Barriers or fencing to direct wildlife to these safe crossing points will be addressed during the final design phase of the project. For more information on the proposed wildlife structures, refer to *Section 4.3.13.3*.

Visual and Auditory Intrusion on the Wekiva River

FDOT and the Expressway Authority have committed to work with NPS to avoid or minimize visual and auditory intrusion on the river. That process will be undertaken prior

to final design. The Wekiva River Basin Area Task Force envisioned the Wekiva Parkway as similar to well known scenic highways, and included promoting “a ‘Parkway’ look with appropriate natural buffers between the roadway and the adjacent areas” in the “Guiding Principles”. FDOT and the Expressway Authority are committed to developing a landscape plan during the final design phase that will accentuate the natural environment. Consistent with the recommendations of the “Guiding Principles” to support the conservation of dark skies in the Wekiva River Protection Area, FDOT and the Expressway Authority will incorporate non-intrusive and minimal roadway and bridge lighting in the final design plans in appropriate areas for Wekiva Parkway.

There is no practical alternative to the proposed construction over the Wekiva National Wild and Scenic River and State Aquatic Preserve. The existing crossing is located at the narrowest point in the river. Any alternative alignment would necessitate filling and/or new bridges across a wider wetland reach which could have far greater impacts. The proposed project includes all practical measures to minimize harm to the river and adjacent lands such as a lengthened and heightened channel span over the river and a lengthened bridge span over the floodplain. In addition, the filled land supporting the existing bridge abutment can be removed, which will restore the wildlife corridor adjacent to the river. The Wekiva River supports nature-based recreational activities including boating (small motorized and non-motorized boats, canoes, and kayaks), and personal watercraft use. The river can be accessed from public lands, private homes, and private marinas, and from the St. Johns River. There are no private marinas or public access locations within the study corridor.

No impacts to recreational activities are anticipated as a result of this project. Additional information will be provided in a document entitled *Wekiva Wild and Scenic River Addendum* to the *Programmatic Section 4(f) Evaluation* to be prepared as part of the Wekiva Parkway/SR 46 Realignment PD&E Study.

4.3.11 Floodplains

The updated final *Location Hydraulic Report* (CH2M HILL, June 2010) indicates that the Proposed Build Alternative crosses 37 mapped floodplains within the study area. The floodplains present within the corridor are associated with rivers, lakes, historic tributaries, and isolated depressional areas. The largest floodplain systems within the corridor include:

- Wolf Branch (also known as Sunset Valley) in Lake County West;
- Neighborhood Lakes and the Wekiva River in Lake County East; and
- Wekiva River, Yankee Lake, and Lake Sylvan in Seminole County.

The mouth of the Wolf Branch regulatory floodway is located north of the project study corridor in Lake County West. No involvement with the floodway is anticipated.

The FEMA Flood Insurance Rate Maps (FIRM) for Orange, Lake, and Seminole Counties were used for this determination. The FEMA FIRM maps indicate that two floodplain zones are present within the project study area. These zones are defined as follows:

- Zone A – No base flood elevations determined; and
- Zone AE – Base flood elevations determined.

The majority of the floodplains located within the study area are Zone A. Floodplain elevations for these areas were estimated based on USGS Quadrangle Maps. Measures were

taken to avoid and minimize impact to the 100-year floodplain; specifically, bridges span the majority of eight floodplains including the Wekiva River. A total of 60.79 acre-feet of impacts are expected as a result of this project. **Table 4-13** shows the potential floodplain impact volumes for each Proposed Build Alternative alignment segment.

TABLE 4-13
Potential Floodplain Impact Volume by Proposed Build Alternative Segment

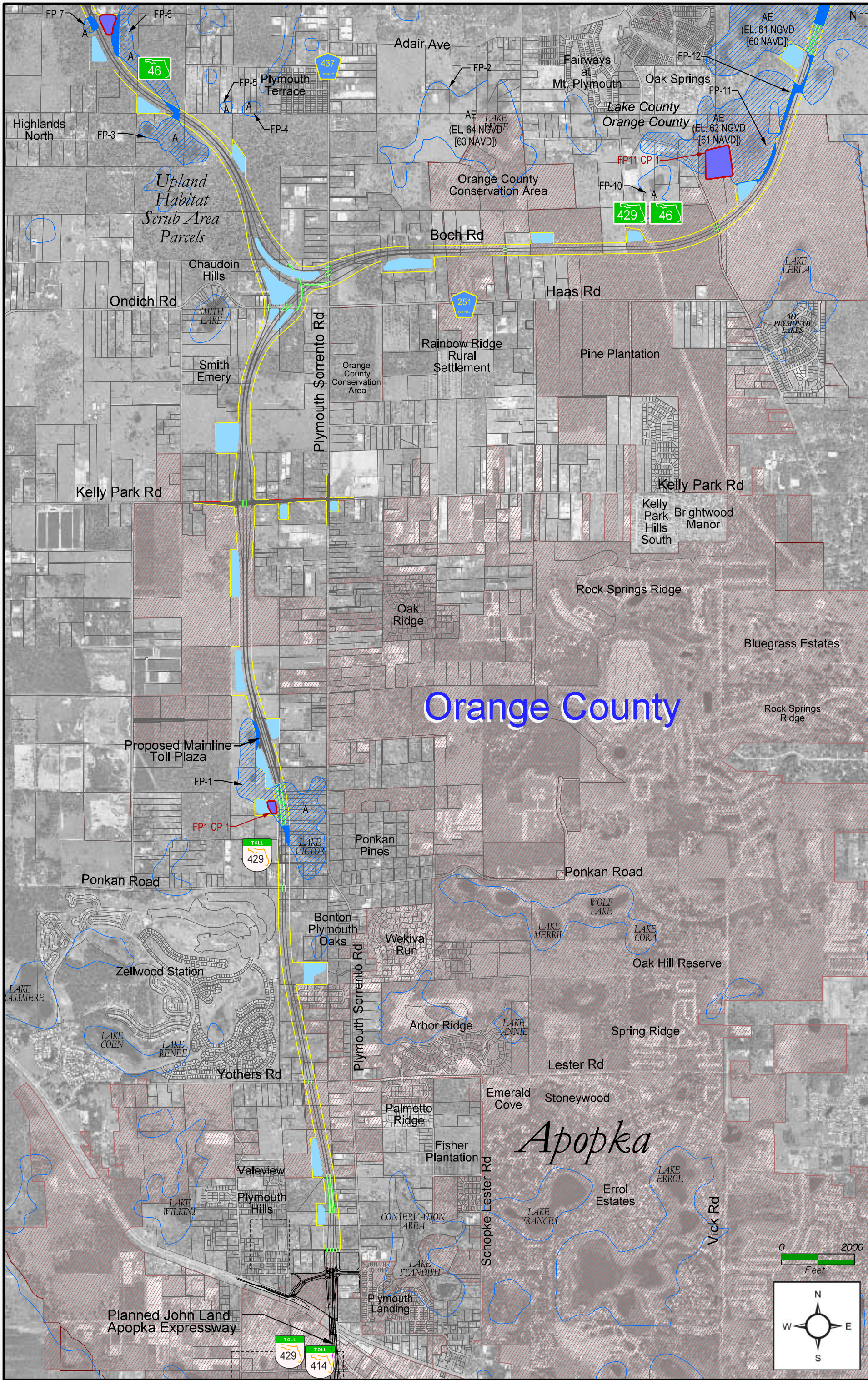
Proposed Build Alternative Alignment Segments	Floodplain Impacts (acre ft)
Kelly Park Road Interchange Alignment with Orange County Alternative 1	6.29
Systems Interchange Alternative 1 with Lake County West Alternative 1	0
SR 46 Widen to North	11.26
US441/SR 46 Interchange Alternative 2	0
Neighborhood Lakes Alternative 1 - Western Alignment	0.94
CR 46A Realignment Alternative 1A, South Widening	33.90
Lake County East Alternative 2 - South (Red) Alignment with Parallel Service Road	3.16
Wekiva Pkwy to SR 417/I-4 Interchange - Alternative B with North Widening	5.24
Total Potential Floodplain Impact Volume	60.79

Avoidance of potential floodplain impacts has played a key role in the development and selection of the Initial, Viable, and Proposed Build Alternative alignment locations, along with minimization of potential social, economic and other environmental impacts.

Exhibit 4-17, Sheets 1 – 4 show the floodplains and potential impact areas within the Proposed Build Alternative roadway and stormwater pond right-of-way, as well as the proposed compensation ponds. Numbered floodplains, shown with hatching, indicate floodplains that are currently impacted by the Proposed Build Alternative, or were previously impacted by alignment alternatives evaluated during the course of the PD&E Study.

Floodplain impacts and compensation approaches are described in the updated final *Location Hydraulic Report*. The conclusions from the floodplain impact analysis are as follows:

1. Detailed floodplain calculations during final design are recommended for the Zone A mappings to more accurately reflect the flood conditions. The calculations may further reduce the extent of the floodplain, thereby reducing the impact/compensation required.
2. For areas in which the floodplain is wholly within Rock Spring Run State Reserve (including the former Neighborhood Lakes parcels) consideration for allowing a nominal floodplain increase, rather than impacting habitat to provide compensation, should be evaluated at final design.
3. Just east of the US 441 interchange, the SR 46 profile is currently below the 50-year flood elevation. This area is just south of the Wolf Branch Floodway and is a modeled Zone AE floodplain. According to the Lake County Flood Insurance Study, the 100-year elevation is 82.0, the 50-year elevation is approximately 81.5, and the 10-year elevation is approximately elevation 81.0. The existing profile varies between elevation 78 and 82 according to survey performed for this study. FDOT District 5 Leesburg Maintenance Office has indicated that there has not been flooding and roadway overtopping in this area; however, the FDOT Drainage Manual requires a 50-year design for essential/high use roadways. SR 46 is also an evacuation route, so a profile above the 100-year floodplain elevation is desirable.






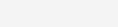

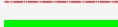
- | | |
|---|--|
|  Stormwater Ponds |  Proposed Build Alternative R/W |
|  Floodplain Compensation Ponds |  Existing R/W |
|  Areas within the FEMA 100-year Floodplain Mapping |  Proposed Bridge |



Exhibit 4-17
Floodplain Impacts
Lake County West Proposed Build Alternative
Sheet 2 of 4

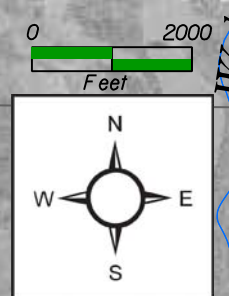
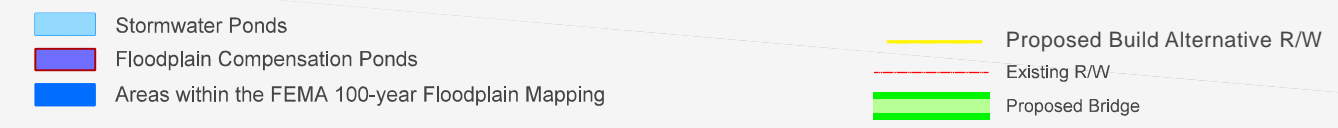
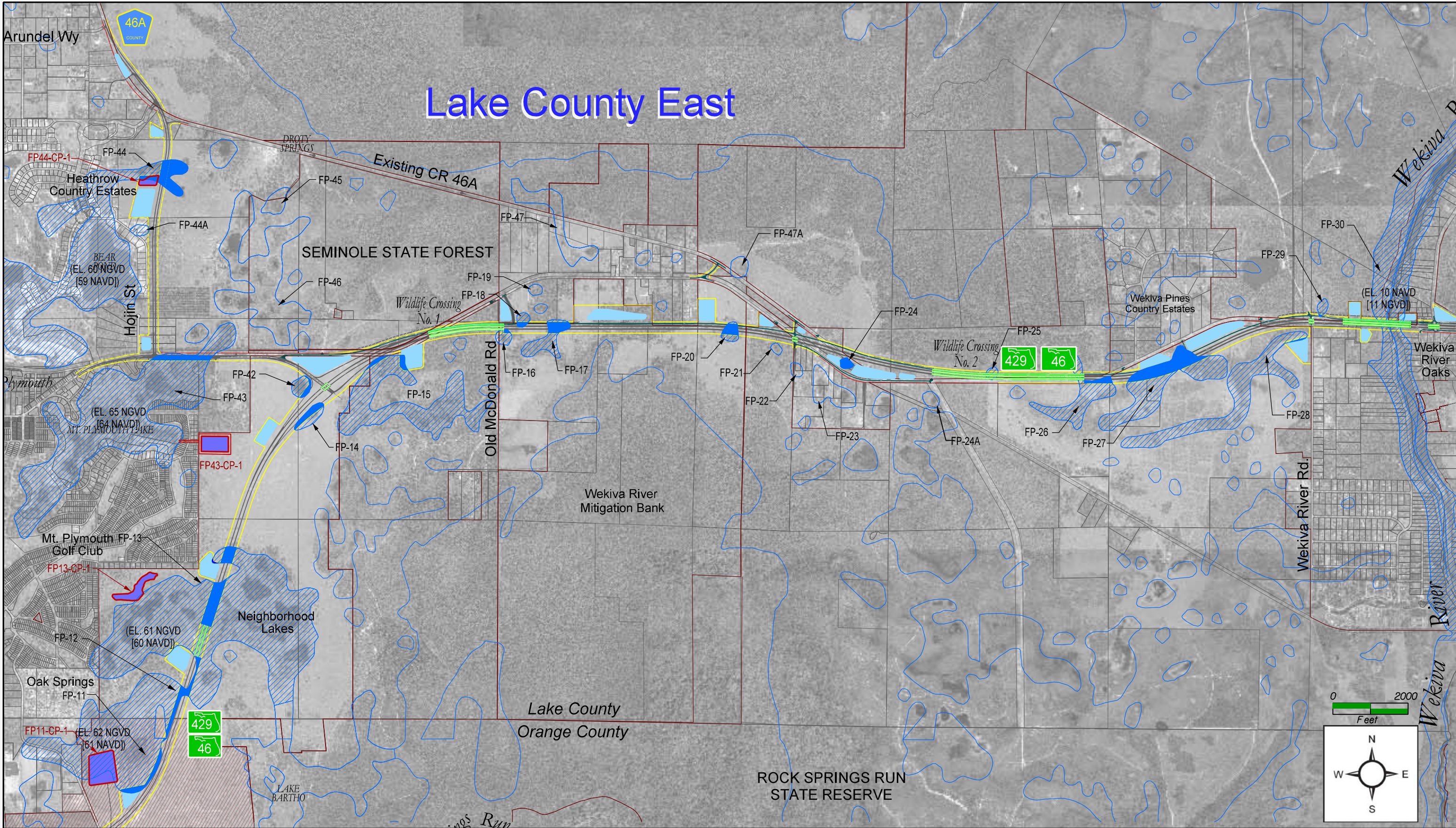


Table 4-14 compares the impact of the three profile options to be evaluated in the final design phase. Raising the profile above the 100-year floodplain elevation will require additional right-of-way width, will slightly increase wetland impacts, and present challenges to maintaining access to several parcels on the south side of SR 46 due to the topography. This area should receive specific attention during final design.

TABLE 4-14
Summary of Wolf Branch Floodplain/SR 46 Profile Comparison

Profile Option	Description	10-year Flood Elevation 82.0 NGVD / 81.0 NAVD		50-year Flood Elevation 82.5 NGVD / 81.5 NAVD		100-year Flood Elevation 83.0 NGVD / 82.0 NAVD	
		Impact Area (ac)	Impact Volume (ac-ft)	Impact Area (ac)	Impact Volume (ac-ft)	Impact Area (ac)	Impact Volume (ac-ft)
A ^{1, 2, 4}	Widening with Existing Profile	5.63	11.26	5.63	11.26	5.63	11.26
B ^{3, 4}	Profile above 50-year Elevation	13.99	41.97	13.99	48.96	13.99	48.96
C ^{3, 4}	Profile above 100-year Elevation	13.99	41.97	13.99	48.96	13.99	55.95

1. An average elevation of 79.5 NGVD / 78.5 NAVD was used for the widening w/ existing profile option.
2. An average elevation of 77.5 NGVD / 76.5 NGVD was used for the widening to represent the lower ground adjacent to the fill placed to construct the current two-lane road.
3. An existing ground average elevation of 79.0 NGVD / 78.0 NAVD was used for the raised profile options to represent the fill previously placed to construct the existing two-lane road and the lower areas adjacent to the existing road fill.
4. Seasonal high groundwater elevation estimated at 75.0 NGVD / 74.0 NAVD based on wetland lines in this area as well as geotechnical investigations.

4.3.12 Coastal Zone Consistency

The Florida State Clearinghouse, pursuant to Presidential Executive Order 12372, Gubernatorial Executive Order 95-359, the Coastal Zone Management Act, 16 U.S.C. §§ 1451-1464, as amended, and the National Environmental Policy Act, 42 U.S.C. §§ 4321, 4331-4335, 4341-4347, as amended, coordinated a review of the proposed project during the Advance Notification phase as discussed in *Section 5.1* of this document. Based on the information provided in the Advance Notification Package and the state agency comments, the Florida State Clearinghouse determined that the allocation of federal funds for the project is consistent with the Florida Coastal Management Program (FCMP); however, the state's final concurrence of the project's consistency with the FCMP will be determined during the final environmental permitting stage.

The Department of Community Affairs has determined that this project is consistent with the Florida Coastal Zone Management Plan (see **Appendix F**).

4.3.13 Wildlife and Habitat

A threatened and endangered species survey was conducted to qualitatively assess the potential for wildlife usage, or rare plant occurrence, within the project study area. The general survey activities consisted of characterizing land uses and vegetative communities within the study area, and conducting wildlife use assessments and protected species habitat assessments. The methodology and results of the survey are documented in the updated final *Endangered Species Biological Assessment* (CH2M HILL, June 2010) prepared for this study and summarized in this section.

Research of available information on recorded occurrences, and potential occurrences, of protected species in the project study area was conducted. Information sources included