3.1 Consistency with Florida Statutes

The Wekiva Wild and Scenic River is a State Aquatic Preserve and Outstanding Florida Water and 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 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. Chapters 258 and 253, Florida Statutes establish the proprietary management overview role of the Governor and Cabinet, sitting as the Board of Trustees of the Internal Improvement Trust Fund, for the State of Florida Aquatic Preserves.

The Florida Department of Environmental Protection (FDEP), Office of Coastal and Aquatic Managed Areas is charged with managing the state's aquatic preserves and reviewing and commenting on projects that require the use of state-owned submerged lands. FDEP's Manager of the Wekiva River Aquatic Preserve has been actively involved in the Wekiva Parkway (SR 429)/SR 46 Realignment PD&E Study as a member of the Environmental Advisory Committee since commencement of the study.

The study area for the Wekiva Parkway (SR 429) is approximately one-half mile wide as it crosses the Wekiva River at the boundary of Lake and Seminole Counties. The existing SR 46 bridge over the Wekiva River is centered within the study area corridor. The proposed alternative for the Wekiva Parkway will utilize the existing Wekiva River crossing location. Use of the existing crossing location will avoid the additional impacts associated with construction of an expressway on new alignment through the remaining undeveloped, natural environment of the Wekiva Wild and Scenic River.

Description of Existing and Proposed Wekiva River Crossing

The existing and proposed Wekiva River crossing is located in a rural, disturbed setting. The classification of this segment of the Wild and Scenic river as "recreational" reflects the disturbed nature of the setting. The river is bordered by residential parcels on the west side of the river, south of SR 46, and both north and south of SR 46 on the east side of the river. Seminole State Forest is adjacent to the north right-of-way line of SR 46 and the western boundary of Wekiva River. Small boats such as canoes and kayaks are permitted on the river and generally travel between Wekiwa Springs State Park to the south of the existing SR 46 bridge, and the former Katie's Landing in Lower Wekiva River Preserve State Park to the north. There is no public access to the river in the vicinity of the bridge crossing; however, the residential properties along the river have private access.

The channel depth at the crossing location was measured at approximately 5.5 feet in an FDOT field inspection of the existing bridge conducted in June 2005. The normal high water elevation at the bridge location is 8 feet NGVD, and the 100-year floodplain elevation is 10 feet NGVD. The distance between the west and east banks of the river varies in width from approximately 188 feet at the location of the existing bridge to 265 feet just north of the existing bridge, where an island separates the river into a main channel and tributary. The island is privately owned, vacant residential land.

Exhibit A.4 shows the plan and elevation of the existing SR 46 bridge over Wekiva River. The existing bridge is a standard, functional pre-stressed concrete stringer/girder structure. There are no embellishments or aesthetic treatments on the structure. The bridge measures 561 feet in length and has eleven 51-foot spans. It carries two lanes of traffic, one in each direction and has no sidewalks. The total width of the bridge deck is 47 feet. The bridge has concrete traffic barriers along each side, with chain link fencing mounted on top.

As shown in Exhibit A.4, the minimum vertical clearance above the normal high water elevation for the existing bridge is 9.792 feet. The bridge generally maintains the at-grade profile of the existing roadway west and east of the structure. Exhibit A.4 also shows the placement of the existing piers within the river. Three rows of bridge piers are located within the river, with one row located in the center of the main river channel. Photographs from the June 2005 bridge inspection show heavy vegetation between the piers at the river banks and aquatic vegetation between the piers in the river. In addition, there is existing exposed drainage pipe and abandoned timber slope protection lying at the water's edge under the bridge. Graffiti under the bridge suggests that, in its current state, the bridge is a visual intrusion to boaters.

The Wekiva Parkway (SR 429) will bridge the Wekiva River and its adjacent 1,200-foot wide forested wetland. The proposed 1,750-foot long bridge is an expressway structure capable of carrying six lanes of traffic (three lanes in each direction) within a 300-foot limited access right-of-way. A 1,750-foot long service road bridge will be built within the 300-foot limited access right-of-way, adjacent to the Wekiva Parkway bridge on the north side. In addition to carrying the non-tolled two-lane rural roadway over the river, the service road bridge will include a ten-foot wide trail on the north side of the bridge to provide a connection between Seminole and Lake Counties for a planned regional multi-use trail. The service road bridge will span the majority of the wetlands abutting the Wekiva River; however, in order to bring the profile down to existing grade prior to its intersection with Wekiva Park Drive and the frontage roads in Seminole County, the service road will impact 0.13 acres of forested wetlands located within the proposed 300-foot right-of-way. Impacts to existing wetlands will be mitigated in part by the restoration and revegetation of the shoreline that will be opened up under the longer, higher bridges.

The 1750-foot expressway and service road bridges will each have 17 spans. The channel span will be 150 feet and the remaining 16 spans will be 100 feet each. The additional width at the river channel will provide less obstruction to channel flow. Both bridges will be approximately thirty feet higher than the existing bridge profile. **Exhibit A.5** (two sheets) shows the plan and elevation of the proposed bridge structures at the Wekiva River. **Exhibit A.6** depicts the proposed Wekiva River bridges in plan view on aerial photo base.





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The proposed alternative will hold the existing south SR 46 right-of-way line, widening to the north as it crosses the Wekiva River. The additional right-of-way width required north of the existing FDOT right-of-way will impact Seminole State Forest. The impact assessment presented in the previously prepared *Programmatic Section 4(f) Evaluation* includes the portion of Seminole State Forest adjacent to the Wekiva River. The Section 4(f) impact evaluation was coordinated with FDEP, Division of Recreation and Parks and the Florida Department of Agriculture and Consumer Services (FDACS), Division of Forestry. Coordination with FDEP, Division of Recreation and Parks and FDACS, Division of Forestry -- particularly regarding the development of alignment alternatives through Neighborhood Lakes, Seminole State Forest, Rock Springs Run State Reserve, and Lower Wekiva River Preserve State Park -- has been ongoing throughout the PD&E Study as documented in the previously prepared *Programmatic Section 4(f) Evaluation*.

The additional right-of-way width required for the proposed project will also 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 Wekiva River 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 Wild and Scenic River.

3.2 Consistency with Wild and Scenic River Management Plan

The Draft Goals and Objectives for the Wekiva National Wild and Scenic River Comprehensive Management Plan (Pandion Systems, Inc., 2007) prepared for the Wekiva River System Advisory Management Committee and the NPS are consistent with the requirements of the Wekiva Parkway and Protection Act. Those management plan 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 Wekiva Parkway that meet the goals and objectives of the Wekiva River management plan.

Conservation Easements and Land Purchases

The portion of the study area 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 the Wekiva River Mitigation Bank (formerly New Garden Coal). Neighborhood Lakes in Orange and Lake Counties, the Wekiva River Mitigation Bank in Lake County, and Pine Plantation in Orange County are three of four parcels identified for acquisition in the *Wekiva Parkway and Protection Act*. The lands not needed for right-of-way for the Wekiva Parkway will become conservation lands of the State of Florida. More detailed information on this and on the discussions below is provided in the previously prepared *Programmatic Section 4(f) Evaluation*.

In July 2005, the state acquired a perpetual conservation easement over the majority of the 1,553-acre mitigation bank property 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 Cabinet approved the purchase of the 1,619 acre Neighborhood Lakes property. The acquisition was completed in March 2007 in partnership with the Orlando-Orange County Expressway Authority. This purchase secures right-of-way for Wekiva Parkway and protects against future development. It is anticipated that the land not needed for right-of-way will be added to Rock Springs Run State Reserve; discussions are still ongoing with Lake County, Orange County, SJRWMD, and the Board of Trustees of the Internal Improvement Trust Fund regarding a management lease for the property.

The property known as Pine Plantation consists of approximately 628 acres, located north and south of Haas Road (CR 251) in Orange County. On September 30, 2008, the Governor and the Cabinet approved an agreement to purchase 385 acres of Pine Plantation in partnership with the Orlando-Orange County Expressway Authority. The land acquired will serve as a buffer to protect the surface water and groundwater resources within the

Wekiva Study Area, including recharge within the Wekiva River spring-shed, and will protect it from future development. The remainder of Pine Plantation consists of one parcel through which the Wekiva Parkway will traverse.

Wildlife Underpasses

As a part of the proposed alternative, FDOT plans to replace the existing western (52-foot wide opening) and eastern (26-foot wide opening) wildlife underpasses along SR 46 in east Lake County with longer wildlife bridges of approximately 1,957 feet (western bridge) and 4,000 feet (eastern bridge). The existing 561-foot bridge over the Wekiva River will be replaced with a longer, higher bridge of approximately 1,750 feet in length. The adjacent service road bridge will also be 1,750 feet in length and will match the profile of the expressway bridge. The locations of the proposed wildlife structures are depicted in **Exhibit A.7**. 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 habitat connectivity. Barriers or fencing to direct wildlife to these safe crossing points will be addressed during the final design phase of the project.

Visual and Auditory Intrusion on the Wekiva River

The proposed project has a potential for visual and auditory impacts from the perspective of the recreational boater at the location of the Wekiva Wild & Scenic River crossing. The Wekiva River is a small, shallow river bordered by state lands and residential properties in a rural setting. Small boats such as canoes and kayaks are permitted on the river and generally travel between Wekiwa Springs State Park to the south of the existing SR 46 bridge, and the former Katie's Landing in Lower Wekiva River Preserve State Park to the north.

The existing 561-foot bridge at this location generally maintains the at-grade profile of the existing roadway and has eleven 51-foot spans. The proposed Wekiva Parkway (SR 429) mainline expressway bridge and the adjacent service road bridge will be approximately 30 feet higher than the existing bridge profile. Both bridges will be 1750 feet in length and will have sixteen 100-foot spans and a 150-foot channel span. The additional span widths, particularly at the channel, are anticipated to have a positive effect on the visual attributes of the river, and the additional height of the bridges will further open up the view; however, the elevated bridges may be viewed as a negative feature by some users.

The proposed profile of the expressway bridge is the result of an evaluation of the geometric, hydraulic, and environmental constraints between Wekiva River Road on the west side of the river in Lake County, and Wekiva Park Drive on the east side of the river in Seminole County. The expressway will bridge both of those existing roadways. The geometric criteria for expressway vertical curves does not allow for the opportunity to lower the profile back to existing grade between those bridge locations, but a sag curve between the bridges is desirable for hydraulic, aesthetic, and cost purposes.



Also, the Wekiva Wild & Scenic River has the additional State of Florida designations of Aquatic Preserve and Outstanding Florida Water and has stringent water quality, water quantity, and riparian habitat criteria that must be met to protect the valued resource. Direct discharge of stormwater runoff to the river, resulting from a sag in the bridge profile, is not permitted. Stormwater pipes will be required on these long bridges but will be generally hidden from view; however, stormwater pipes originating from a sag point in the profile would be visible beneath the girders of the bridge. In order to avoid a sag in the bridge profile over the river, the profile will have a low point on the west side of the river, where the bridge runoff will be routed to two adjacent ponds, and will rise in elevation as it crosses the river and bridges Wekiva Park Drive. The benefit to elevating the expressway and elongating the bridges is that the wetland and floodplain impacts will be substantially minimized and the additional area of river bank will open up the corridor for wetland dependent species.

The service road concept was developed to provide a non-tolled alternative for local trips for area residents and businesses. The service road is primarily an at-grade, two-lane rural roadway adjacent to the expressway from Neighborhood Lakes to just east of the Wekiva River; however, the service road will be bridged through the two wildlife crossing locations between Neighborhood Lakes and the Wekiva River, as well as over the Wekiva River. In order to minimize the additional visual intrusion of a second bridge over the river, the bridge profile for the service road will match the expressway bridge profile. The bridge elevations will diverge east of the river so that the service road can be brought back down to grade for intersection with Wekiva Park Drive and the one-way directional frontage roads in Seminole County.

Consistent with promoting a "Parkway" look with appropriate natural buffers between the roadway and adjacent areas, 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 recommendations 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.

As previously stated, the increased pier spacing and channel span width of the proposed Wekiva River bridges will enhance the view of the river from the perspective of the recreational user and will minimize the build-up of aquatic vegetation that occurs with closely-spaced bridge piers. Additional design features related to the aesthetics of the structure, such as weathered metal or color tinting, will be evaluated by FDOT during the final design phase of the project. Measures to reduce visual intrusion or substantial noise impacts are design phase activities that are to be coordinated with the NPS and the FDEP, Office of Coastal and Aquatic Managed Areas.

On-Going Coordination

Several members of the Wekiva River System Advisory Management Committee, which assists the NPS on Wild and Scenic River issues, have been actively involved in the Wekiva Parkway (SR 429)/SR 46 Realignment PD&E Study as members of the Environmental Advisory Committee since commencement of the study. That coordination will continue.