

1.2 Project Purpose and Need

The purpose of and need for the project were originally documented in the October, 1989 state-level EIS prepared by FDOT for the Northwest Beltway Study, Part B. In November 2002, FDOT again documented the purpose of and need for the northwest portion of the Western Beltway (SR 429) in a presentation to the Wekiva Basin Area Task Force. The updated purpose and need for the project is summarized below:

- **Complete the Western Beltway (SR 429) around metropolitan Orlando**

The Wekiva Parkway will complete the Western Beltway (SR 429) from Interstate 4 (I-4) in Osceola County to I-4 in Seminole County. SR 429 currently terminates at US 441 in Apopka. The Wekiva Parkway will provide a system to system connection for regional mobility between the Eastern Beltway (SR 417), the Western Beltway (SR 429), and I-4.

The Wekiva Parkway is designated as a planned addition to Florida's Strategic Intermodal System (SIS). Florida's SIS is an integrated transportation network consisting of statewide and regionally significant transportation facilities, services, modes of transportation and linkages. The SIS was established to focus limited state resources on transportation facilities that are critical to Florida's economy and quality of life.

The regional transportation network in the metropolitan Orlando area currently consists of I-4 (SR 400), Florida's Turnpike, SR 408 (East-West Expressway), SR 528 (Beachline Expressway), SR 417 (Eastern Beltway), and completed portions of the Western Beltway (SR 429), all of which are heavily traveled SIS facilities. The Regional Transportation Network with the current and future heavily congested SIS corridors, based on 2008 Traffic Data by the FDOT Transportation Statistics Office, is shown in **Exhibit 1-2**. Heavy congestion in urban areas is considered bumper to bumper or stop and go traffic movement during peak periods (Level of Service (LOS) "E" or worse). For rural areas, passenger and truck traffic is so heavy during peak periods that changing lanes is very difficult (LOS "D" or worse). The future system includes all cost feasible improvements through 2035. All SIS facilities in the metropolitan Orlando area will be heavily congested by 2035, with the exception of portions of SR 429 (Western Beltway). The segments of SR 429 that are not projected to be heavily congested by 2035 include the recently constructed segment between I-4 in Osceola County and Florida's Turnpike in Orange County and the planned Wekiva Parkway.

Completion of the Western Beltway will allow regional traffic to bypass the most heavily congested segment of I-4 (from south of the Osceola/Orange County line to south of the Seminole/Volusia County line) which travels through the City of

1.4.3 Recommended Preferred Alternative

Based upon comparative assessment of the results of the engineering/environmental analysis and the evaluation of impacts/costs, and after extensive coordination with multiple stakeholders, the Preferred Alternative was identified by the Expressway Authority and FDOT in April 2007. Subsequent coordination with state and local agencies, homeowners associations, and other stakeholders resulted in some refinements to that alternative.

Following the identification of the Preferred Alternative for the overall project, extensive discussions on funding options reached a crucial decision point in early 2009. Due to declining transportation dollars available to FDOT, it was determined that the preliminary estimated cost of the project (\$1.8 billion) would not be financially feasible to fund without tolls on the Wekiva Parkway in Lake and Seminole Counties. In response to residents in the east Lake County area who expressed concerns over paying a toll for a local trip, FDOT and the Expressway Authority analyzed options to provide a non-tolled alternative for local trips. After several meetings during mid to late 2009 with area residents, local government officials, the Florida Department of Environmental Protection, and representatives of the environmental stakeholder community, a two-lane, two-way service road concept parallel to the Wekiva Parkway was developed. To minimize impacts, the service road is proposed to be within the previously identified Wekiva Parkway right-of-way. The service road would extend from just north of the Wekiva Parkway interchange near Neighborhood Lakes to just east of the Wekiva River in Seminole County; that concept was presented at a Public Workshop in Lake County on December 17, 2009. Public comments resulting from the workshop were reviewed and incorporated into the preliminary design of the service road and the Wekiva Parkway mainline.

The overall recommended Preferred Alternative, depicted in **Exhibit 1-3**, will be presented at three Public Hearings to be held in Orange, Lake, and Seminole Counties. Coordination with federal, state, and local agencies, the project advisory group, the environmental advisory committee, the public and other stakeholders has been ongoing and will continue throughout the PD&E Study.

Early in the alternatives analysis phase of the PD&E Study, the project study area was divided into four general sub-areas, as described below, to aid in the analysis and understanding of the project segments:

- Orange County from the planned John Land Apopka Expressway/US 441 interchange north to the Lake County line;
- Lake County from US 441 to the Orange County line (referred to as Lake County West);
- Lake County from the Orange County line to the Seminole County line (referred to as Lake County East); and
- Seminole County from the Lake County line to I-4.

Orange Boulevard in Seminole County. Those service and frontage roads would provide access to properties while also providing a non-tolled alternative for local trips.

1.4 Analysis of Alignment Alternatives

The following sections provide a brief summary of the process whereby the alignment alternatives for the proposed Wekiva Parkway (SR 429)/SR 46 Realignment project were developed and analyzed.

1.4.1 Initial Alternatives

Before the PD&E Study team developed initial alignment concepts in Orange, Lake, and Seminole Counties, a comprehensive data collection effort was undertaken within and adjacent to the study area. Controlled aerial photography of the corridor was used for base mapping. Along with property parcel lines/numbers, street names, geographic features and other identifiers, the data collected on such items as the locations of community facilities, public lands, known or potential historic sites, wetlands, floodplains, wildlife habitat, potential contamination sites, and others were put on the base map. Avoidance or minimization of impact to these facilities and sensitive areas, as well as homes and businesses, to the greatest extent possible was the primary focus in the development of the alignment alternatives. The initial alternatives were presented at three Public Workshops held in Orange, Lake, and Seminole Counties in November 2005.

1.4.2 Viable Alternatives

After the first Public Workshops and meetings with local and state governmental agencies and other stakeholders on the initial alternatives, the project team began the process of alternatives evaluation and refinement. The concepts and impact assessments developed in the initial alternatives phase of the study served as the basis for identification of potential viable alternatives. The initial alternatives presented at the Public Workshops in November of 2005 were analyzed and evaluated in greater detail, their impacts were assessed more thoroughly, and they were scrutinized for negative aspects. This resulted in the elimination or modification of some alternatives and the further evaluation of others as potential viable alternatives. The Viable Alternatives were presented at July/August 2006 Public Workshops held in Orange, Lake, and Seminole Counties. Two documents (*Technical Memorandum – Development and Analysis of Initial Alternatives* and *Technical Memorandum – Identification and Evaluation of Viable Alternatives*) were prepared in December 2006 to provide information on the process that was completed during the initial and viable alternatives phases of the PD&E Study.

Over the past 20 years, more than 50 Florida Black Bears, a state-listed threatened species, have been killed by collisions with vehicles on a six mile segment of SR 46 adjacent to the state conservation lands. From 1994 to 2005 on that same section of SR 46, 23 bears were killed by vehicles. Both the proposed Wekiva Parkway and a parallel service road in Lake County East incorporate three long wildlife bridges to enhance wildlife habitat connectivity between state conservation lands, which would greatly reduce the number of vehicle-wildlife conflicts.

1.3 Project Description

In early 2005, the Expressway Authority and FDOT began the Wekiva Parkway (SR 429)/ SR 46 Realignment PD&E Study under joint management. The study addresses the following proposed project components:

- **The Wekiva Parkway**, a four-lane divided (expandable to six-lane divided) limited access toll facility, which would begin in Orange County at the planned terminus of the John Land Apopka Expressway at US 441 just west of CR 437 and extend to the north/northeast into Lake County, turning east and crossing the Wekiva River into Seminole County and terminating at I-4. The approximate length of the Wekiva Parkway is 20.94 miles, with 8.16 miles in Orange County, 7.37 miles in Lake County and 5.41 miles in Seminole County.
- **SR 46 Reconstruction and Realignment**, which would begin at the SR 46/US 441 interchange in Lake County and extend along the existing SR 46 corridor to the east, then turning southeast on a new alignment and entering Orange County with a systems interchange connection at the Wekiva Parkway. It is expected that the SR 46 improvements would provide six-lane divided controlled access along the existing alignment from US 441 to east of Round Lake Road, while the remaining alignment to the southeast is expected to be limited access. The approximate length of the SR 46 Reconstruction and Realignment is 4.79 miles, with 4.01 miles in Lake County and 0.78 mile in Orange County.
- **CR 46A Realignment**, a two-lane rural (expandable to four-lane rural) roadway, which would begin on existing CR 46A in east Lake County and extend to the south on a new alignment and tie into existing SR 46 with an access connection to the Wekiva Parkway. The approximate length of the CR 46A realignment is 2.72 miles.
- **Wekiva Parkway Access Improvements** would be required between the realignment of CR 46A in Lake County and Orange Boulevard in Seminole County to allow access to the private property along existing SR 46. A two-lane, non-tolled service road would be parallel to the Wekiva Parkway from north of the Wekiva Parkway interchange near Neighborhood Lakes to just east of the Wekiva River in Seminole County. Two-lane, one-way non-tolled frontage roads would be parallel to the Wekiva Parkway from east of the Wekiva River to

fatalities resulting from vehicle crashes on the 18.5 mile segment of SR 46 from US 441 near Mount Dora in Lake County to I-4 near Sanford in Seminole County. FDOT data indicates that in 2004 alone there were 10 fatalities and 117 injuries resulting from 95 vehicle crashes on that section of SR 46.

Public awareness of this safety issue has been raised through media attention, such as an *Orlando Sentinel* article on September 28, 2005 which described SR 46 in Lake County as “Central Florida’s Deadliest Road”. The *Sentinel* stated that, according to their analysis of regional crash data from FDOT and the Florida Highway Patrol, on a per mile basis the section of SR 46 through Lake County is the most dangerous roadway in Central Florida, and the section of SR 46 through Seminole County was described as the region’s second most dangerous roadway. While such media reports are not the basis for decision-making, they have heightened public interest in the need for a safer travel facility in east Lake County and west Seminole County.

As traffic volumes grow on these unimproved local roadways, it is reasonable to expect that a similar increase in traffic incidents would continue to occur. The proposed Wekiva Parkway and the widened and realigned sections of SR 46 would be designed and constructed in accordance with all current standards and would be available to those regional motorists desiring to bypass local traffic. A modern facility, coupled with the opportunity for segregation of trip types, would help to reduce the potential for traffic incidents and fatalities when compared to existing conditions.

- **Develop a transportation facility that minimizes impacts to the Wekiva Basin Area resources and that specifically improves wildlife habitat connectivity between conservation lands and reduces vehicle-wildlife conflicts**

The recognition of the importance of the Wekiva River basin, its habitat, wildlife, conservation and recreation values, the associated spring systems, and the connection to the Ocala National Forest elevates the protection of this resource to a primary component of the purpose and need for the Wekiva Parkway. There are numerous publicly held conservation and recreation lands within or in close proximity to the study area, including Rock Springs at Kelly Park, Wekiwa Springs State Park, Rock Springs Run State Reserve, Seminole State Forest, and Lower Wekiva River Preserve State Park. Vast areas of floodplains and wetlands, including the Wekiva Swamp south of SR 46 and the Seminole Swamp north of SR 46, are located west of the Wekiva River. The natural environment includes the Wekiva River Basin ecosystem, springshed, and an expansive wildlife habitat area that connects to the Ocala National Forest.

An additional safety concern in the study area is vehicle-wildlife conflict. Since much of the study area consists of sparsely populated rural residential areas and large tracts of state conservation land, there have historically been many conflicts between vehicles and wildlife on roadways, particularly SR 46 in east Lake County.

Orlando and is the main thoroughfare providing access to Walt Disney World, Sea World, Universal Studios, and other area attractions. In addition to providing relief to regional motorists, the completed Western Beltway will ease congestion on local roadways and provide a needed expressway connection between northwest Orange, eastern Lake, and western Seminole Counties.

- **Provide a higher capacity east-west travel facility in east Lake County and west Seminole County**

Most of the existing roadways within the study area consist primarily of local and collector roads. SR 46 is the only east-west connection between Lake County and Seminole County within the study area. SR 46 is a two-lane rural roadway which was constructed prior to current design standards. The majority of SR 46 through Lake and Seminole Counties consists of two 12-foot travel lanes with varying shoulder widths.

A safer, higher capacity east-west travel facility is needed. Many roads in the study area are currently operating at conditions below LOS "C". However, for SR 46 in east Lake County and west Seminole County, the existing LOS is "F", with annual average daily traffic of 23,700.

These LOS conditions, especially for SR 46, are projected to worsen significantly under the No-Build scenario. Growth in residential population and employment opportunities has contributed to an increasing travel demand in northwest Orange County, northern Lake County, and western Seminole County. Population and employment projections indicate that travel demand will continue to increase in the area for the foreseeable future. In the 2032 design year for the proposed project, the projected No-Build condition for SR 46 in east Lake County and west Seminole County is a further deteriorated LOS "F", with annual average daily traffic of 37,440. That would be a 58% increase in traffic on a facility that is currently operating at LOS "F".

The proposed project is a needed link between urbanized areas. Modes of transportation within the Wekiva Parkway study area are generally limited to personal vehicles and vehicles for hire. There are currently no public bus service routes within the study area. Much of the study area traverses rural residential and conservation lands; however, the corridor connects the urbanized areas of Apopka in Orange County, Mount Dora in Lake County, and Sanford in Seminole County. The proposed Wekiva Parkway project would meet increased travel demand from population growth in an environmentally sensitive and compatible manner.

- **Improve safety to reduce vehicle crash fatalities**

Many of the study area roadways are two-lane roads that do not meet the current design standards for safety and capacity. That is a major contributing factor in the high crash and fatality rates, especially for SR 46 through Lake and Seminole Counties. According to FDOT Crash Data Reports from 2000 to 2004, there were 27

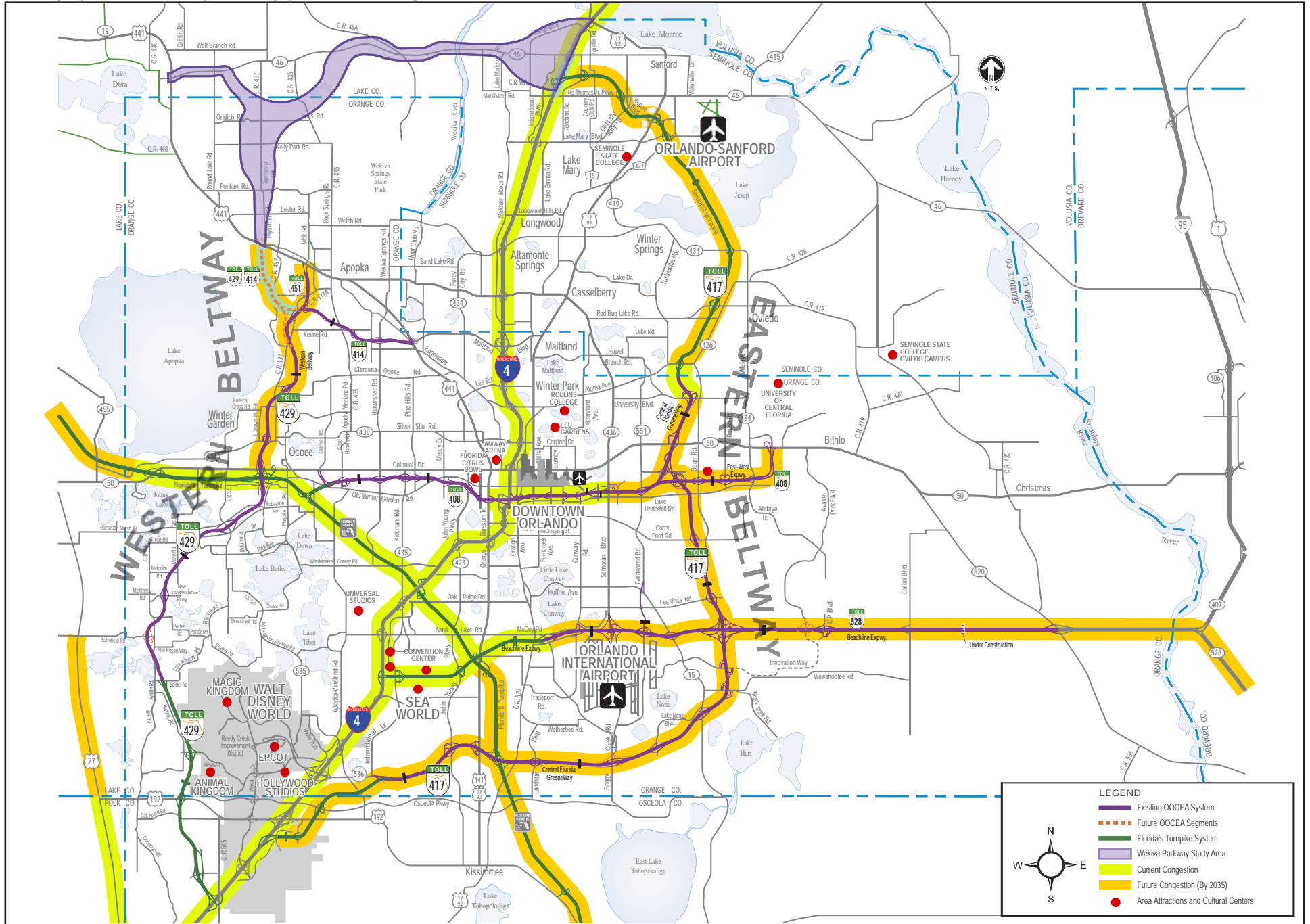


Exhibit 1-2
Regional Transportation Network with Heavily Congested SIS Facilities

A draft *Endangered Species Biological Assessment* for the viable alternatives was prepared in February, 2007. A final *Endangered Species Biological Assessment*, May 2008, was prepared for the recommended Preferred Alternative that was identified prior to 2009. This updated final *Endangered Species Biological Assessment*, June 2010, includes the necessary revisions to text and exhibits that resulted from incorporation of the non-tolled service road in Lake County East. The current recommended Preferred Alternative is described below for each of the four general project sub-areas.

Orange County (see Exhibit 1-4)

- Wekiva Parkway
 - Kelly Park Road Interchange Alternative
 - Orange County Alternative 1 (east of Plymouth Sorrento Road)
 - Systems Interchange Alternative 1
- SR 46 Realignment
 - Lake County West Alternative 1 (northwest to Lake County line)

Lake County West (see Exhibit 1-5)

- SR 46 Reconstruction and Realignment
 - US 441/SR 46 Interchange Modification Alternative 2
 - SR 46 North Widening Alternative from US 441 to east of Round Lake Road
 - Lake County West Alternative 1 (southeast to Orange County line)

Lake County East (see Exhibit 1-6)

- Wekiva Parkway
 - Neighborhood Lakes Alignment Alternative 1
 - South (Red) Alignment Alternative 2, revised to incorporate the two-way, non-tolled service road within the Wekiva Parkway 300-foot limited-access right-of-way.
- CR 46A Realignment
 - Alternative 1A, with SR 46 widening to the south

Seminole County (see Exhibit 1-7)

- Wekiva Parkway
 - North Widening Alternative from Wekiva River east to near Orange Avenue
 - SR 417/I-4 Interchange Modification Alternative B
- SR 46 Reconstruction
 - Widen to Six Lanes from Wekiva Parkway to the SR 46/I-4 Interchange

Based on these requirements of federal law, the Wekiva Parkway (SR 429)/SR 46 Realignment PD&E Study has completed the coordination and consultation for this biological assessment to evaluate the effects of the proposed roadway on the occurring and potentially occurring listed species and their habitats discussed in Section 4 of this report.

1.6.1 Process Overview

A biological assessment identifies any listed species or critical habitats which are likely to be adversely affected by the proposed project, if a listed species or a designated critical habitat is present in the proposed project area (50 CFR 402.12).

Federal listed species have been identified as occurring or potentially occurring within the project study area. Literature and field data have been collected for each species that may be affected by the proposed improvements. That data is discussed in this report and was presented to the USFWS for a determination of the project's effects on these species. The USFWS provided comments in accordance with Section 7 of the Endangered Species Act of 1973, the Bald and Golden Eagle Protection Act, and the Fish and Wildlife Coordination Act. The USFWS concurs with statements and commitments made in this ESBA regarding project effects on federally listed species (see Section 5.6 - Agency Concurrence on Project Effects). This fulfills the ESBA consultation requirements with USFWS at this time and no further coordination action is required. Re-initiation of consultation may be required if the project is modified, or additional species information becomes available.

1.6.2 Definitions

Critical Habitat – for listed species is a specific area designated by the USFWS that is essential to an endangered or threatened species' survival and conservation. Critical Habitat may include sites for breeding, feeding and roosting, appropriate cover and shelter, and enough surrounding habitat to allow normal behavior and population growth. It may be one or more large geographic areas, or just a small area depending on the needs and distribution of the species (USFWS and NMFS 1998). Section 4(a)(3) of the 1973 Endangered Species Act, as amended, requires that, to the maximum extent prudent and determinable, the Secretary designate critical habitat at the time a species is determined to be endangered or threatened (USFWS and NMFS 1998). Designated critical habitats are described in 50 CFR 17 and 50 CFR 226. No area within or adjacent to this project has been designated critical habitat (USFWS and NMFS 1998).

Riparian Habitat Protection Zone (RHPZ) – a specific area designated per 40C-41 Surface Water Management Basin Criteria whereby specific standards and criteria are established for the protection of the riparian functions (forested uplands along a riverine system) of the Wekiva River Hydrologic Basin per subsection (3)(e)1. F.A.C. (SJRWMD 2005). Construction or alteration of a system must not adversely affect the

1.5 Purpose of the Endangered Species Biological Assessment Report

In support of the Wekiva Parkway (SR 429)/SR 46 Realignment PD&E Study, potential habitat areas and the occurrence of threatened and endangered species were investigated within the project study area. The purpose of this *Endangered Species Biological Assessment* report is to present the methodologies used and summarize the results of the surveys conducted for this study. The Endangered Species Act of 1973 requires that FHWA evaluate the potential effects of the proposed Wekiva Parkway project on federal and state listed species prior to the release of any federal funding. This report has been prepared in accordance with the requirements set forth in FDOT's PD&E Manual, Part 2, Chapter 27. The project study area wherein this investigation was conducted is shown in the previously referenced Exhibit 1-1.

1.6 Biological Assessment Process

Pursuant to 16 United States Code (U.S.C.) 1536[(a)-(d)] of the Act, as amended, federal agencies impose specific requirements regarding endangered or threatened species of fish, wildlife, or plants (listed species) and habitat of such species that has been designated as critical habitat under Section 7(a) of the Act. These specific requirements include the protection of all federal listed species (and their habitats) found in federally funded projects. Such species are to be found in the Code of Federal Regulations (CFR) Title 50 Part 402 and in other legislation listed below.

Section 7(a)(2) of the Act also requires every federal agency (such as FHWA), in consultation with and with the assistance of the Secretary, to ensure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of any listed species or results in the destruction or adverse modification of critical habitat. Section 7(a)(3) of the Act authorizes a prospective permit or license applicant to request the issuing federal agency to enter into early consultation with the USFWS on a proposed action to determine whether such action is likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat. Other applicable federal laws include:

CFR, Part 771, Environmental Impact and Related Procedures;

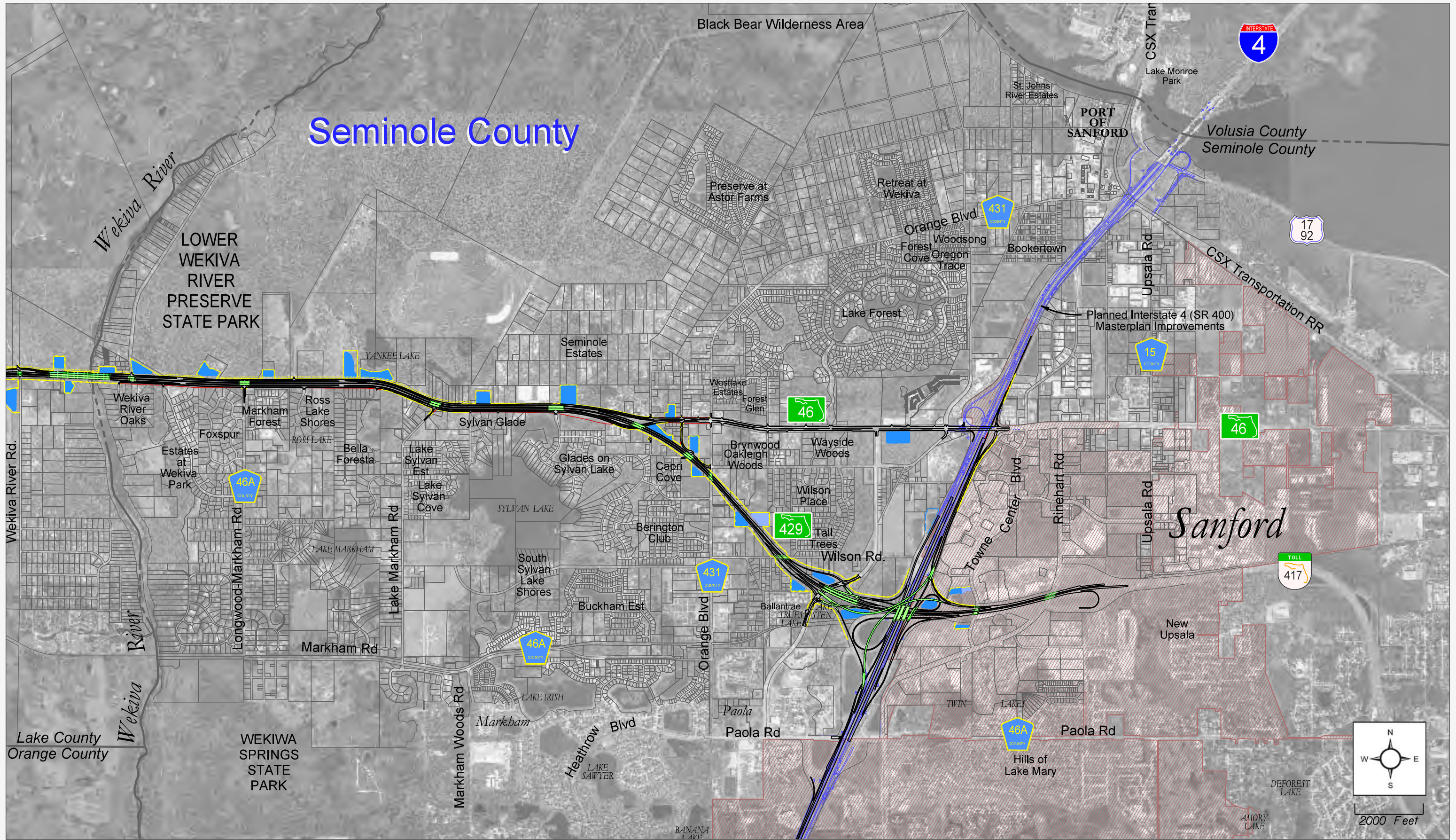
CFR, Part 1500 et seq., Council on Environmental Quality, Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act;

U.S.C. 4321 et seq., National Environmental Policy Act of 1969, as amended;

U.S.C. 662, Section 2 of the Fish and Wildlife Coordination Act; and

U.S.C. 1536, Section 7 of the Endangered Species Act of 1973.

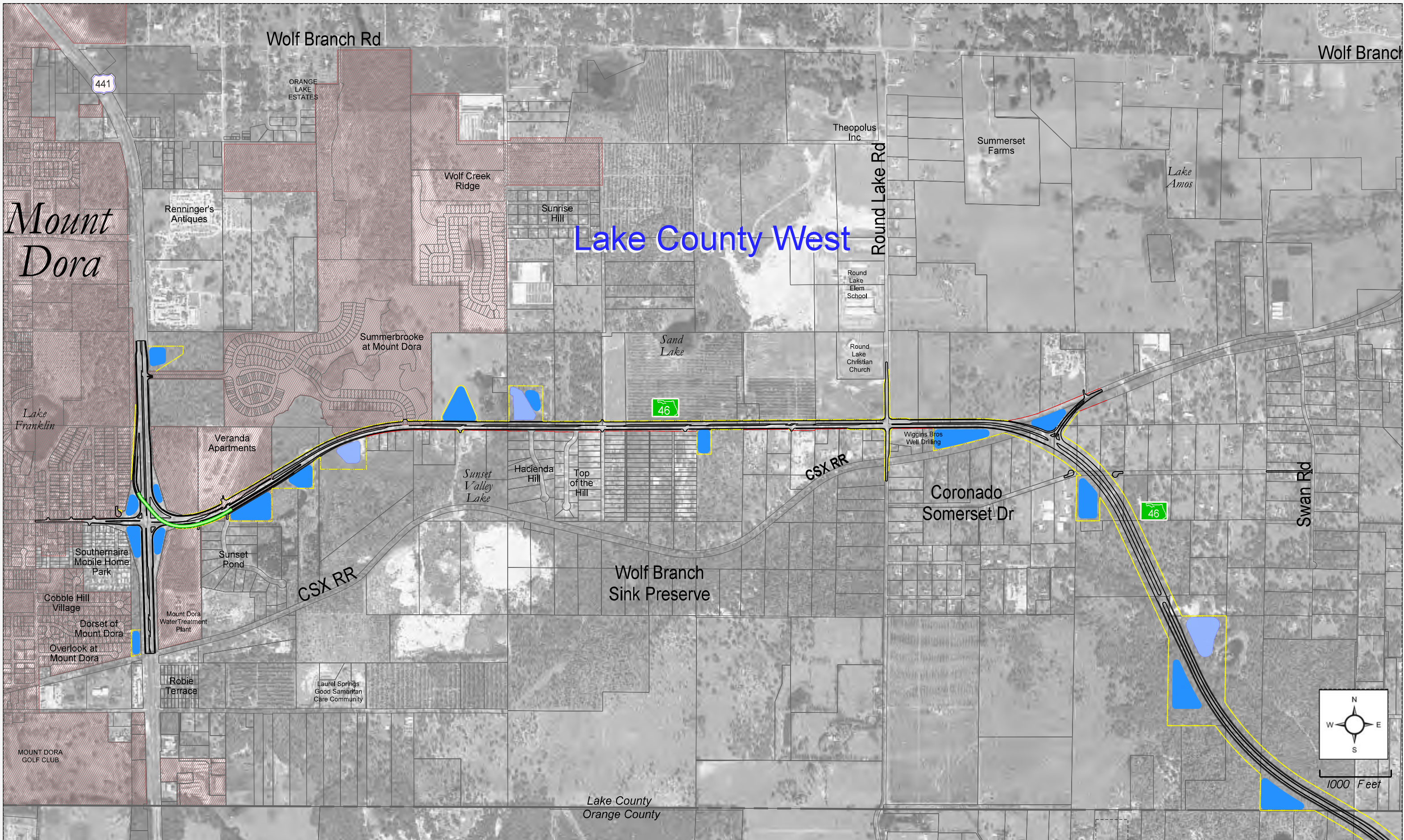
Seminole County



- LEGEND**
- Stormwater Ponds
 - Floodplain Compensation Ponds
 - Municipal Boundaries
 - Proposed Bridge
 - Preferred Alternative R/W
 - Existing R/W
 - Existing Parcel Lines

Exhibit 1-7
Seminole County Preferred Alternative



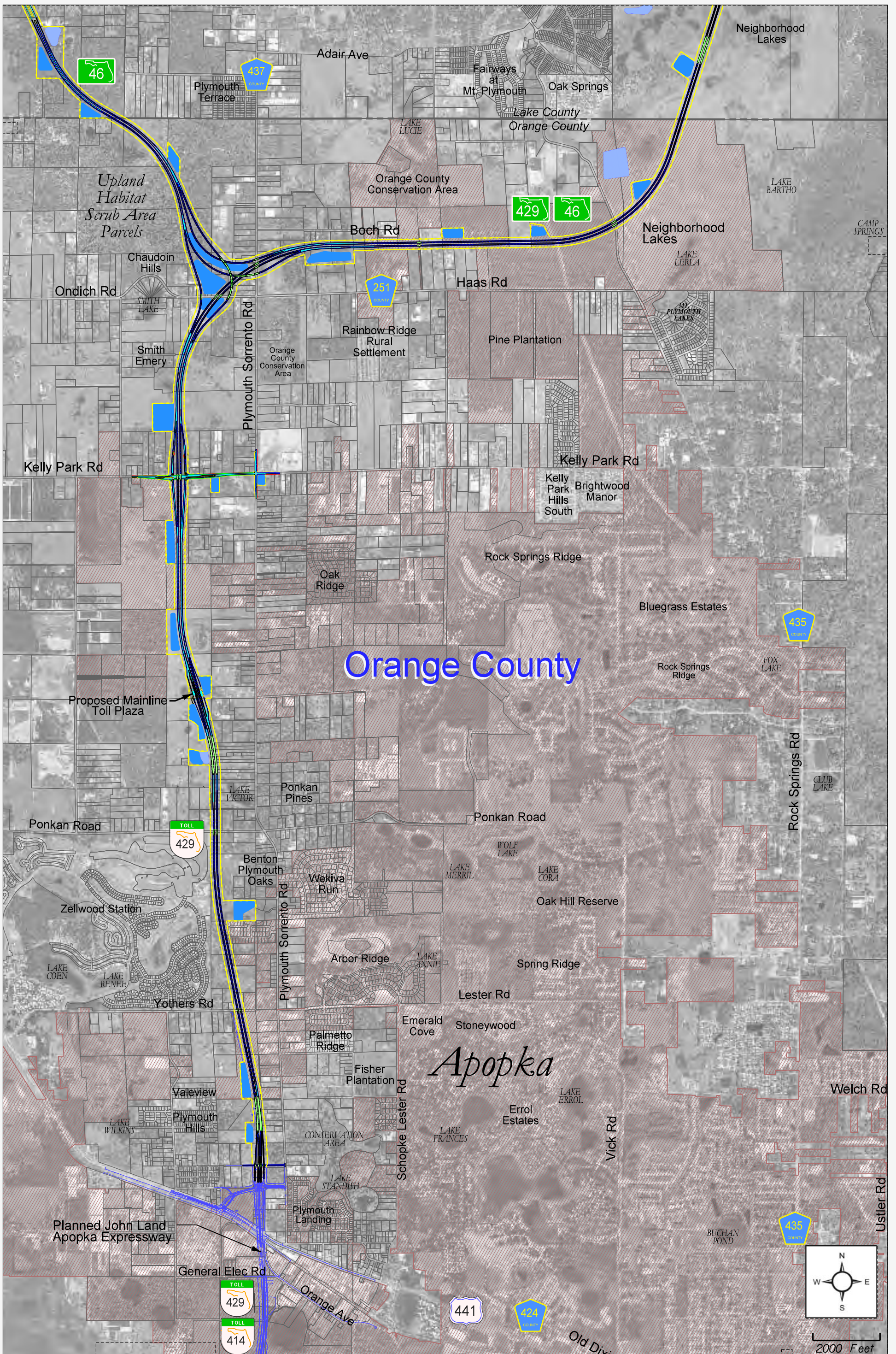


- LEGEND**
- Stormwater Ponds
 - Floodplain Compensation Ponds
 - Municipal Boundaries
 - Proposed Bridge

- Preferred Alternative R/W
- Existing R/W
- Existing Parcel Line

Exhibit 1-5
Lake County West Preferred Alternative





LEGEND

- Stormwater Ponds
- Floodplain Compensation Ponds
- Municipal Boundaries
- Proposed Bridge
- Preferred Alternative R/W
- Existing R/W
- Existing Parcel Line

Exhibit 1-4
Orange County Preferred Alternative

abundance, food sources, or habitat (including its use to satisfy nesting, breeding and resting needs) of aquatic or wetland dependent species provided by the designated RHPZ (SJRWMD 2005). For the Wekiva River and Rock Springs Run, the RHPZ is the most landward limit of the: undeveloped uplands that are 550 feet from the water's edge of the river/creek, or uplands that are 550 feet from the herbaceous wetland line, or uplands that are 50 feet from the forested wetland line.

Direct Effects - Direct effects are defined by the USFWS Endangered Species Consultation Handbook (USFWS and NMFS 1998) as encompassing the direct or immediate effect of the project on the species or its habitat. Additionally the handbook states "direct effects result from the agency action including the effects of interrelated actions and interdependent actions." Interrelated and interdependent actions are separate actions that would have no purpose if it were not for the specific project, such as those needed to support the project (USFWS 2004).

Cumulative Effects - Cumulative effects include the effects of unrelated future state or private activities that are reasonably expected to occur in the project area (USFWS 2004), such as development. Cumulative effects are those effects that result from the incremental impact of the proposed action when added to other past, present and reasonably foreseeable future actions. Cumulative effects can result from individually minor, but collectively significant, actions taking place over time (USFWS and NMFS 1998).

Indirect Effects - Indirect effects are those that are caused by the proposed action and are later in time or farther removed in distance from the action, but still are reasonably certain to occur. Indirect effects include actions that would affect a species food supply, quality of habitat, behavior (USFWS 2004, 1998).