



I-75 South Corridor Master Plan

Study Limits: South of Collier Boulevard (SR 951) to
North of Bayshore Road (SR 78)

Final - Environmental Element

July 2022

PREPARED FOR:

FLORIDA DEPARTMENT OF TRANSPORTATION – DISTRICT ONE

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Acronyms and Abbreviations

AADT	Annual Average Daily Traffic
AASHTO	American Association of State Highway and Transportation Officials
ADT	Average Daily Traffic
APE	Area of Potential Effects
BEBR	Bureau of Economic and Business Research
CR	County Road
D/C	Demand to Capacity
EFH	Essential Fish Habitat
ERP	Environmental Resource Permit
ETAT	Environmental Technical Advisory Team
ETDM	Efficient Transportation Decision Making
FDEO	Florida Department of Economic Opportunity
FDOT	Florida Department of Transportation
FDEP	Florida Department of Environmental Protection
FDM	FDOT Design Manual
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIHS	Florida Intrastate Highway System
FIRM	Flood Insurance Rate Map
FMSF	Florida Master Site File
FWC	Florida Fish and Wildlife Conservation Commission
GIS	Geographic Information System
HCM	Highway Capacity Manual
ILC	Intermodal Logistics Center
LFR	Load Factor Rating
LOS	Level of Service
MPH	Miles per Hour

NAVD	North American Vertical Datum of 1988
NBI	National Bridge Institute
NGVD	National Geodetic Vertical Datum of 1929
NMFS	National Marine Fisheries Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
OFW	Outstanding Florida Waters
OGT	Office of Greenways and Trails
PCMS	Petroleum Contamination Monitoring Sites
PD&E	Project Development and Environment
PER	Preliminary Engineering Report
PTAR	Project Traffic Analysis Report
RCRA	Resource Conservation and Recovery Act
SDR	Sociocultural Data Report
SHPO	State Historic Preservation Officer
SIS	Strategic Intermodal System
SR	State Road
STCM	Storage Tank Contamination Monitoring
SUN	Shared-Use Nonmotorized
SFWMD	South Florida Water Management District
TSM&O	Transportation Systems Management and Operations
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
V/C	Volume to Capacity
WBID	Water Body ID

1.0 Introduction

The Florida Department of Transportation (FDOT) is conducting a Master Plan Study to address the operational capacity of Interstate 75 (I-75) to accommodate future travel demand resulting from population and employment growth along I-75 in Collier and Lee Counties. FDOT, in partnership with the local communities, is being proactive to address the long-term needs of the interstate corridors in Southwest Florida.

This Master Plan Study is part of the Southwest Connect™ Interstate Program which consists of multiple studies and projects within four corridors along I-75 and I-4 in FDOT District 1. I-75 North, Central and South Corridors are included in the Southwest Connect™ Interstate Program. The I-4 Corridor will focus on needs for Central Florida. **Figure 1.1** depicts the counties and current phase of the four Southwest Connect™ Interstate Program projects.



A separate Planning and Feasibility study is underway for each corridor. During the Planning and Feasibility phase of the Master Plan Study, solutions will be identified and documented to target needs that include the improvement of safety, operational capacity, functionality, efficiency, and connectivity along and across the corridor.

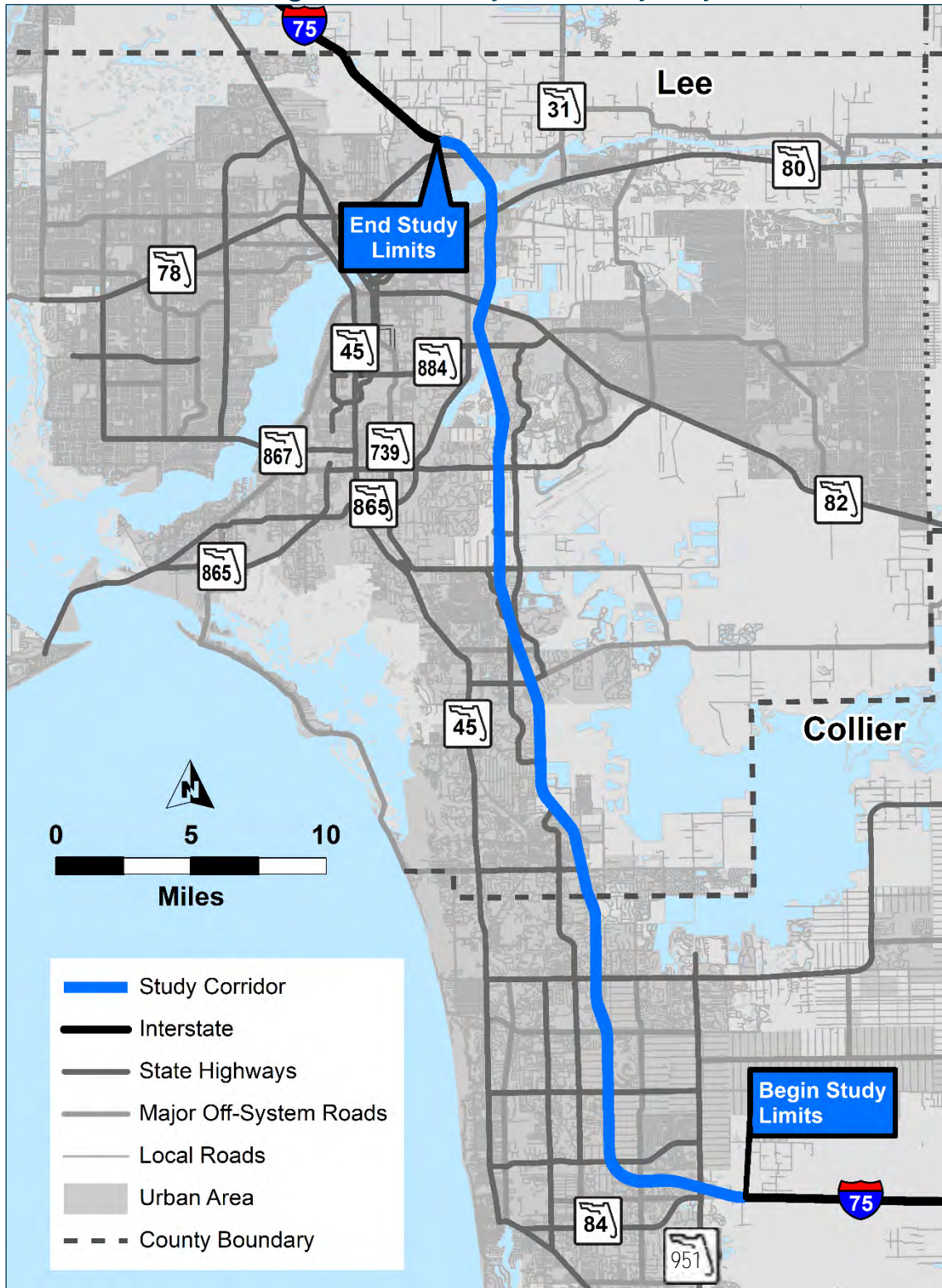
Figure 1.1: Southwest Connect™ Interstate Program projects



Figure 1.2 shows the project location map for the I-75 South Corridor Master Plan Study and this Environmental Element. The study limits for the I-75 South Corridor, extend from south of Collier Boulevard (SR 951) in Collier County to north of Bayshore Road (SR 78) in Lee County. The study spans 42.2 miles in length and traverses the major urban areas of Naples and Fort Myers in southwest Florida. I-75 also crosses the navigable Caloosahatchee River in Lee County, just south of SR 78 (Bayshore Road).



Figure 1.2: Lee County-Collier County Study Area



As part of Florida’s Strategic Intermodal System (SIS) highway network, I-75 plays a significant role in facilitating business, commuter, visitor, and freight traffic within the state. I-75 also serves as part of the emergency evacuation route network designated by the Florida Division of Emergency Management. I-75 is designated as a primary evacuation route for Collier and Lee Counties. The corridor is vital in facilitating traffic during emergency evacuation periods as it connects to other major arterials and highways of the evacuation route network [such as SR 951 (Collier Boulevard) and SR 78 (Bayshore Road)].

1.1 Project Description

This Master Plan is analyzing the feasibility of adding managed lanes in each direction on I-75. Additional general use lanes, collector-distributor roadways, and auxiliary lanes, as well as interchange operational improvements, are also being considered to improve the overall reliability and performance of the interstate system.

Traffic volumes on the corridor are projected to increase to between 66,000 and 155,000 vehicles per day by 2045. Without improvements, the driving conditions will deteriorate below acceptable Level of Service (LOS) targets. The Master Plan will identify opportunities to preserve operational integrity, regional functionality and improve emergency evacuation capabilities. These improvements stand to create possibilities for the provision to operate reliable, efficient transit service within the managed lanes, as well as to provide connections to park and ride or kiss and ride lots located within the project area.

1.2 Purpose of This Report

The purpose of this Environmental Element is to provide an in-depth summary of potential environmental impacts due to the proposed corridor enhancements. This report will provide information regarding the potential impacts or enhancements associated with the social and economic, cultural, natural, and physical environmental resources within the ultimate build-out of the I-75 South Corridor.

2.0 Environmental Impacts Summary

A desktop analysis of environmental issues was performed using available Geographic Information Systems (GIS) data collected as part of the project's Efficient Transportation Decision Making (ETDM) Preliminary Programming Screen Report (Number 14400, February 2020) and other desktop resources. The programming screen's GIS analysis lists the resources within various buffer distances (100-, 200-, 500-, 1320-, 2640-, and 5280 feet). The appropriate buffer used to assess existing conditions was dependent on the resource type. The result of this analysis is provided in the project's Existing Conditions Report (November 2021).

The baseline data provided in the project's Existing Conditions Report provided the basis upon which a more detailed environmental assessment was conducted to summarize pertinent environmental features along the project corridor and assess the potential for effects associated with the conceptual mainline alternative. The environmental issues evaluated are the elements of a Type 2 Categorical Exclusion. **Table 2.1** identifies the environmental issues associated with a Type 2 Categorical Exclusion and the potential involvement with this project. The following text includes a discussion of each of the environmental issues shown in **Table 2.1**.

The Florida Department of Transportation may adopt this planning product into the environmental review process, Pursuant to Title 12 U.S.C. § 168(d), or to the state project development process.

Table 2.1: Potential Environmental Issues

Issues/Resources	Potential Impacts	Enhancement	No Involvement
Social and Economic			
Social	X	-	-
Economic	-	X	-
Land Use Changes	X	-	-
Mobility	-	X	-
Aesthetic Effects	X	-	-
Relocation Potential	X	-	-
Farmland Resources	X	-	-
Cultural			
Section 106 of the National Historic Preservation Act	X	-	-
Section 4(f) of the USDOT Act of 1966	X	-	-
Section 6(f) of the Land and Water Conservation Fund	X	-	-
Recreational Areas and Protected Lands	X	-	-
Natural			
Protected Species and Habitat	X	-	-
Wetlands and Other Surface Waters	X	-	-
Essential Fish Habitat (EFH)	X	-	-
Floodplains	X	-	-
Sole Source Aquifer	-	-	X
Water Resources	X	-	-
Aquatic Preserves	-	-	X
Outstanding Florida Waters	X	-	-
Wild and Scenic Rivers	-	-	X
Coastal Barrier Resources	-	-	X
Physical			
Highway Traffic Noise	X	-	-
Air Quality	-	-	X
Contamination	X	-	-
Utilities and Railroads	X	-	-
Construction	X	-	-
Navigation	X	-	-

3.0 Social and Economic

To understand the potential social and economic effects of the proposed project on adjacent communities and their quality of life, the ETDM Environmental Screening Tool Sociocultural Data Report (SDR) and Census Data were used to develop a demographic profile of the I-75 project corridor. Results of this analysis is summarized as part of the Existing Conditions Report. The study area delineation for this analysis focused on 500 feet from each side of the existing I-75 right-of-way and extends to the limits of the project corridor.

3.1 Social

The Existing Conditions Report indicates that when compared to Collier and Lee Counties in general, the study area has a higher median household income, a lower percentage of households below the poverty level, and a lower percentage of disabled residents than what is found county wide. The study area has a slightly higher median age and a minority population consistent with the percentage recorded for the counties. The demographic characteristics of the study area confirm that there would not be disproportionate effects to special populations including minority, low-income, limited English proficiency, elderly, or other population subgroups as a result of this project.

I-75 along with its interchanges is a well-established interstate highway; therefore, improvements proposed as part of this project are not expected to adversely affect community cohesion or neighborhood boundaries, significantly change traffic patterns through established neighborhoods, or reduce connectivity to neighborhood activity centers or community facilities.

An assessment of emergency services including Fire and Rescue stations and one hospital was conducted as part of the Existing Conditions Report. These facilities are located at a distance from proposed I-75 improvements and are not expected to be impacted by the project. Emergency service access and response time changes will be assessed as part of the PD&E study.

Regarding project construction, there could be temporary impacts during construction periods including noise, vibration, dust, traffic detours, and erosion control for water quality. These temporary disruptions may affect adjacent residences, businesses, and recreational/community facilities; however, long-term effects would not be present. Details on construction impacts and measures to reduce the amount of disruption will be determined during the PD&E Study, consistent with guidance provided in the PD&E Manual, Part 2, Chapter 3, Engineering Analysis.

Given the physical setting of existing I-75 and its interchanges, the proposed improvements are anticipated to have minimal effects on the social environment. During the PD&E Study, FDOT will conduct public outreach to solicit input from the general public to ensure that the social and transportation needs of the affected communities are not negatively impacted by the project.

3.2 Economic

As identified in the Existing Conditions Report, I-75 is part of Florida's Strategic Intermodal System (SIS) highway network, providing regional access to employment centers, agricultural lands, and



residential areas across the state as well as facilitating the movement of significant commuter, visitor, and freight traffic within Collier and Lee Counties. Within 500 feet of the project corridor, there are two EPA/FDEP designated brownfields, both located within the Fort Myers-Lee County (EZ3601) Enterprise Zone, the Southwest Florida International Airport, 27 Developments of Regional Impact, and 188 Planned Unit Developments, all of which would benefit from increased operational capacity, improved overall reliability and performance, and moving high volumes of goods and people at efficient speeds on I-75.

The project is anticipated to increase employment opportunities in the local economy due to enhanced access to existing employment centers and attract new employment to the area. The Florida Department of Economic Opportunity (FDEO) commented during the programming screen that the project is not located within a Rural Area of Opportunity; however, the project has the potential to attract new development and new jobs because of improved access/mobility in Collier and Lee Counties.

FDEO commented further that that the project would likely enhance local and regional mobility, enhance hurricane evacuation/disaster response, and support population and economic growth.

Project improvements are anticipated to occur mostly within existing right-of-way; therefore, there is not expected to be a loss of businesses adjacent to I-75. The specific right-of-way requirements will be determined during the PD&E Study and potential impacts to businesses will be thoroughly evaluated.

3.3 Land Use Changes

As shown in the Existing Conditions Report, the majority of the project corridor is developed and consists of urban uses and this trend is expected to continue on available parcels. Due to expected urban-scale growth, the project would not result in a change in the character or aesthetics of the existing landscape along I-75.

The Existing Conditions Report states that the Collier County Comprehensive Plan, the Lee County Comprehensive Plan Future Transportation Maps series, and the existing and future land use maps, all indicate that the project will continue to be compatible with local growth policies and adopted land use plans; therefore, the proposed improvements are anticipated to result in minimal changes to, or impacts on land use.

3.4 Mobility

Alternative modes of travel such as sidewalks, bicycle lanes, and bus routes that are in proximity to the I-75 interchanges located within the study area have been identified in the Existing Conditions Report. An assessment of these modes within 750 feet of the I-75 mainline indicate that there will be opportunities to provide improved or new bicycle and pedestrian accommodations to enhance circulation/connectivity and increase access to area transit services. The new managed lanes would increase connections to park and ride and kiss and ride lots located throughout the project area.

Regarding intermodal connectivity, the project will improve existing regional and statewide freight movements. As noted in the Existing Conditions Report, the Seminole Gulf Railway supports movement

of freight and several intermodal centers included in the Bureau of Transportation Statistic Intermodal Passenger Connectivity Database are located in Lee and Collier County. These include regional bus stations, marinas, and the Southwest Florida International Airport.

Any improvements to multimodal facilities are anticipated to benefit disadvantaged populations due to overall improved mobility from the proposed project.

3.5 Aesthetic Effects

Given that the I-75 corridor currently exists, the project is expected to be compatible with the character of the surrounding communities and will blend in visually without any additional adverse effects to vistas or viewsheds.

3.6 Relocation Potential

Although the proposed improvements to I-75 are anticipated to be constructed primarily within the existing right-of-way, some additional right-of-way may be required, particularly around interchanges and for stormwater management facilities. The specific right-of-way requirements and relocations will be determined during the PD&E Study. In accordance with Part 2, Chapter 4 of the PD&E Manual, a Conceptual Stage Relocation Plan may be prepared if relocations are expected. The plan will include demographic data for households and businesses being relocated, replacement property, and relocation assistance. This plan will follow the FDOT Right-of-Way Procedures Manual.

3.7 Farmland Resources

As noted in the Existing Conditions Report, there are approximately 1,920 acres of soils classified as Farmlands of Unique Importance within a 200-foot buffer of I-75. Future Land Use Maps of both Collier and Lee counties indicate that the corridor will continue to support urban uses; however, some farmland will remain. Although minimal involvement with farmlands is anticipated, impacts to farmlands of unique importance will be evaluated during the PD&E Study process and FDOT will coordinate with the Natural Resources Conservation Service (NRCS) following the PD&E Manual guidance in Part 2, Chapter 6, Farmland.

4.0 Cultural

4.1 Section 106 of the National Historic Preservation Act

The ETDM Programming Screen identified 25 previously recorded historic resources within 500 feet of the I-75 project corridor. These resources were documented in the Existing Conditions Report, and included structures, resource groups and one historic cemetery. Of these resources, 17 were determined ineligible for listing in the National Register of Historic Places (NRHP), 8 have not been evaluated, and one was determined eligible for listing in the NRHP (Alligator Alley, CR01104). There is a potential for unmarked burials to extend outside of the defined cemetery boundaries; any proposed project-related excavation needs to consider this. A review of the Lee and Collier County Property Appraiser websites, historic aerial photographs, and Google Earth imagery revealed the potential for over 90 new historic resources, 45 years of age or older (constructed in 1977 or earlier) are located within 500-feet of the project corridor. In addition, 15 newly identified resources are located within the existing ROW. These include three canals and 12 bridges.

Based on the Existing Conditions Report and review of the Florida Master Site File (FMSF), there are two previously recorded archaeological sites located within 500 feet of the project area. These two sites consist of a burial mound and a midden, neither of which have been evaluated by the State Historic Preservation Officer (SHPO) in terms of NRHP eligibility. The project corridor has a variable archaeological probability due to its length and multiple land uses.

Due to the number of known and potential historic and archaeological resources along the project corridor, and the potential for unmarked burials, there is a potential for project-related cultural resource involvement. During the project's PD&E phase, a Cultural Resource Assessment Survey (CRAS) in accordance with Part 2, Chapter 8 of the FDOT Manual should be undertaken.

4.2 Section 4(f) of the USDOT Act of 1966

A review of available GIS and published information was performed as part of the Existing Conditions Assessment to identify known Section 4(f) resources within the project area. Based on this review, resources identified include Florida Managed Areas (9), local park and recreation facilities (11), and multi-use and paddling trails (12). In addition, there are 25 golf courses adjacent to the I-75 corridor.

While the majority of project improvements will occur within existing right-of-way, additional right-of-way may be required for interchange construction or for the development of stormwater management systems. As a result, the project will need to be examined for potential impacts to Section 4(f) resources in accordance with Section 4(f) of the Department of Transportation Act of 1966 (Title 49, USC Section 1653(f), amended and recodified to Title 49, USC, Section 303, in 1983) and Part 2, Chapter 7 of the FDOT PD&E Manual.

4.3 Section 6(f) of the Land and Water Conservation Fund Act

As part of the project's Programming Screen evaluation, the National Park Service (NPS) identified the Caloosahatchee Creeks Preserve (East) as a 6(f) resource protected under the Land and Water Conservation Fund Act (LWCF) (LWCF Site 12-00500). Located adjacent to the I-75 corridor and within the area of the Caloosahatchee River, the Caloosahatchee Creeks Preserve (East) is managed by the Florida Department of Environmental Protection (FDEP). Proposed project improvements have the potential to impact this Section 6(f) resources, and any taking of land from the site would trigger a conversion, which would require the FDOT and FDEP to coordinate with the NPS and identify replacement lands.

During the project's PD&E phase, the FDOT should assess potential project-related impacts to the Caloosahatchee Creeks Preserve (East) and should continue to coordinate with the FDEP and NPS, in accordance with Part 2, Chapter 7 of the FDOT PD&E Manual.

4.4 Recreation Areas and Protected Lands

As stated in the Existing Conditions Report, multiple Florida Managed Areas have been identified adjacent to the I-75 corridor. These include state-owned upland conservation lands which are managed for conservation and outdoor resource-based recreation. These lands are held by the Board of Trustees of the Internal Improvement Trust Fund (TIITF), and any impacts to these resources will require coordination with the Acquisition and Restoration Council (ARC). Due to the location of these resources, proposed project improvements have the potential to impact these state-owned resources.

During the project's PD&E phase, the FDOT should assess potential project-related impacts to state-owned conservation lands and should continue to coordinate with the FDEP and ARC, in accordance with Part 2, Chapter 23 of the FDOT PD&E Manual.

5.0 Natural

5.1 Protected Species and Habitat

As part of the Existing Conditions Report, a review of the available GIS and published information was performed to identify the potential for threatened or endangered species to occur within the project area. Based on the EST GIS analysis, several federal and state listed species have the potential to occur within the project area. **Table 5.1** provide a listing of these species and their federal and/or state designation. In addition, all or part of the project corridor is within the USFWS Consultation Areas for American crocodile, crested caracara, Florida scrub jay, snail kite, red-cockaded woodpecker, Florida bonneted bat, West Indian manatee, Florida panther, and Southwest Florida plants; and the USFWS Service Area for the Florida scrub jay.

Critical habitat for the West Indian Manatee and the smalltooth sawfish is present within the study area. The study area also traverses the USFWS Focus Area for the Florida panther (Primary and Secondary Zones), and Core Foraging Areas for the wood stork. Core foraging areas of three wood stork colonies overlap the project. These colonies include the Corkscrew, Caloosahatchee River East and the Caloosahatchee River West colonies.

The bald eagle (*Haliaeetus leucocephalus*) was delisted from protection under the Endangered Species Act in 2007. However, the bald eagle is protected under the Bald and Golden Eagle Protection Act, the Migratory Bird Treaty Act, and Florida state law. The protective buffers of two bald eagle nests extend into the I-75 right-of-way. The Primary and Secondary Zones of Nest LE063 overlap the right-of-way southeast of the Lockett Road interchange. The Secondary Zone of Nest LE058 overlaps the right-of-way southwest of the Daniels Parkway interchange. The Audubon EagleWatch Program mapper indicates the status (2021 season) for Nests LE063 and LE058 as “unknown”.

Other wildlife documented within 100 feet of the study area includes 62 Florida black bear nuisance reports, 21 Florida black bear road kills, and 18 Florida panther road kills. Along with West Indian manatee, these are the only protected species documented within the I-75 right-of-way. Two FWC Manatee Protection Zones are established within the Caloosahatchee River in accordance with the Florida Manatee Sanctuary Act (Rule 68C-22, F.A.C.). A colony of bats has also been reported in the I-75 southbound bridge over the Caloosahatchee River (Bridge No.: 120083).

Table 5.2: Federal and State Listed Species Potentially Present within Project Corridor

Common Name	Scientific Name	Listing Status
Plants		
Florida Prairie-Clover	<i>Dalea carthagenensis floridana</i>	FE
Garber's Spurge	<i>Chamaesyce garberi</i>	FT
Fish		
Gulf sturgeon	<i>Acipenser oxyrinchus desotoi</i>	FT
Smalltooth Sawfish	<i>Pristis pectinata</i>	FE
Reptiles		
American Alligator	<i>Alligator mississippiensis</i>	FT (SA)
American Crocodile	<i>Crocodylus acutus</i>	FT
Eastern Indigo Snake	<i>Drymarchon couperi</i>	FT
Florida Pine Snake	<i>Pituophis melanoleucus</i>	ST
Gopher Tortoise	<i>Gopherus polyphemus</i>	FC, ST
Loggerhead Sea Turtle	<i>Caretta</i>	FT
Kemp's Ridley Sea Turtle	<i>Lepidochelys kempii</i>	FE
Birds		
Audubon's Crested Caracara	<i>Caracara plancus</i>	FT
Everglade Snail Kite	<i>Rostrhamus sociabilis</i>	FE
Florida Scrub-Jay	<i>Aphelocoma coerulescens</i>	FT
Florida Burrowing Owl	<i>Athene cunicularia</i>	ST
Florida Sandhill Crane	<i>Antigone canadensis</i>	ST
Florida Grasshopper Sparrow	<i>Ammodramus savannarum floridanus</i>	FE
Least Tern	<i>Sternula antillarum</i>	ST
Little Blue Heron	<i>Egretta caerulea</i>	ST
Piping Plover	<i>Charadrius melodus</i>	FT
Red Knot	<i>Calidris canutus rufa</i>	FT
Red-Cockaded Woodpecker	<i>Leuconotopicus borealis</i>	FE
Roseate Spoonbill	<i>Platylea ajaja</i>	ST
Reddish Egret	<i>Egretta rufescens</i>	ST
Tricolored Heron	<i>Egretta tricolor</i>	ST
Wood stork	<i>Mycteria americana</i>	FT
Mammals		
Florida Panther	<i>Puma concolor coryi</i>	FE
Puma (=mountain Lion)	<i>Puma (=Felis) concolor (all subsp. except coryi)</i>	FT (SA)
Florida Bonneted Bat	<i>Eumops floridanus</i>	FE
West Indian Manatee	<i>Trichechus manatus</i>	FT

FE=Federal Endangered; FT=Federal Threatened; FC=Federal Candidate Species; SA= Similarity of Appearance; ST=State Threatened

While much of the project corridor consists primarily of urban area, wildlife and habitat involvement is anticipated due to the number of large public conservation areas adjacent to the I-75 corridor, including the Caloosahatchee to Lee Coast and Southwest Coast Ecosystem Management Areas. Additionally, the project crosses the Caloosahatchee National Wildlife Refuge and the Six Mile Cypress

Slough Preserve (designated SFWMD Save Our Rivers Lands). It is also near six other protected Florida Managed Areas, including Caloosahatchee Creeks Preserve (East) (a National Park Service Project) and Corkscrew Regional Ecosystem Watershed (a Florida Forever Board of Trustees (BOT) Project and a SFWMD Save Our Rivers Lands).

While the proposed project has the potential to adversely affect protected species and their habitats, avoidance and minimization measures and strategies should be developed through agency coordination and implemented during later project phases to minimize potential adverse effects to the extent practicable. These measures may include development of large mammal wildlife crossings.

During the project's PD&E phase, protected species and habitat assessments should be undertaken in accordance with Part 2, Chapter 16 of the FDOT PD&E Manual, and information collected included in a Natural Resources Evaluation developed for the project.

5.2 Wetlands and Other Surface Waters

The Existing Conditions Report reviewed wetlands and other surface waters within 200 feet of the I-75 corridor using the National Wetlands Inventory (NWI) and the South Florida Water Management District (SFWMD) Wetlands 2014-2016 databases. NWI reported a total of 1,120.11 acres of palustrine, riverine, estuarine, and lacustrine wetlands, with palustrine wetlands compose the majority. The SFWMD wetlands database identified a total of 502.74 acres of wetlands within the same designated area consisting of wet pinelands/hydric pine, followed cypress, along with cypress – mixed hardwoods, cypress – domes/heads, freshwater marshes/graminoid prairie – marsh, mangrove swamp, mixed shrubs, mixed wetland hardwoods, saltwater marshes/halophytic herbaceous prairie, wet melaleuca, wet prairie, wetland coniferous forests, and wetland forested mixed. Estuarine wetlands were limited to and associated with the Caloosahatchee River. The areal extent of wetlands and other surface waters differences between the two databases (SFWMD and NWI) can be explained due to the systems using different mapping conventions and the age difference in the aerial imagery used for the photointerpretation. The NWI aerial imagery is dated 1999, 2002 and 2010, and most of the area reviewed was mapped using 2002 true color aerial imagery, while the aerial mapping used for the SFWMD database is dated 2014-2016.

To better identify potential project-related impacts to wetlands and surface waters, a GIS analysis of potential wetlands located within the existing I-75 right-of-way was performed using the SFWMD Land Use/Land Cover and NWI databases. Based on this analysis, the SFWMD Land Use/Land Cover identified approximately 215 acres of wetlands and 60 acres of surface waters within the existing I-75 right-of-way. A total of approximately 275 acres of wetlands and surface waters. Wetland forests comprise the majority of these wetlands (145 acres), while natural waterways comprise 16 acres of the right-of-way. Natural waterways were represented primarily by the Caloosahatchee River channel. The NWI identified approximately 338 acres of wetlands, with palustrine wetlands totaling 286 acres, riverine wetlands comprising 19 acres, and estuarine wetlands 34 acres. Estuarine wetlands were associated with the Caloosahatchee River.

In addition, proposed project stormwater management facilities will be developed to meet the design and performance criteria established by the SFWMD for treatment and attenuation of discharges to nearby waterbodies. Additional ponds may also be required to compensate for project-related impacts to the 100-year floodplain. While roadway improvements are anticipated to be constructed primarily within the existing right-of-way, additional right-of-way may be required to accommodate new or expanded stormwater management facilities. These facilities could result in additional impacts to wetlands and surface waters.

While all wetlands within the existing I-75 right-of-way will not likely be impacted by the proposed project, impacts to wetlands and surface waters will likely occur as a result of project construction. An assessment of wetland impacts should be undertaken during the project's PD&E phase and avoidance and minimization measures should be identified and implemented during later project phases to reduce impacts to wetlands and other surface waters to the extent practicable. Best management practices (BMPs) should be utilized during construction activities, and compensatory mitigation should be provided for adverse impacts to wetlands resulting from proposed improvements.

During the project's PD&E phase, wetlands and surface water assessments should be undertaken in accordance with Part 2, Chapter 9 of the FDOT PD&E Manual, and information collected included in a Natural Resources Evaluation developed for the project.

The project will require permitting through the SFWMD under the Environmental Resources Permit (ERP) Program and the Florida Department of Environmental Protection under the State 404 Program in State-assumed waters, as well as federal Section 404 (Clean Water Act) permitting for impacts within US Army Corps of Engineers-retained waters. Resource agencies, including the US Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), and Florida Fish and Wildlife Conservation Commission (FWC), will also be involved during the permitting process to ensure that resource species are not adversely affected by the proposed actions.

5.3 Essential Fish Habitat (EFH)

NMFS staff conducted an inspection of the project area during the Existing Conditions evaluation to assess potential concerns related to living marine resources within the Caloosahatchee River and San Carlos Bay. Certain estuarine habitats within the project area are designated as Essential Fish Habitat (EFH) as identified in the 2005 generic amendment of the Fishery Management Plans for the Gulf of Mexico. The generic amendment was prepared by the Gulf of Mexico Fishery Management Council (GMFMC) as required by the 1996 amendment to the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). Estuarine habitats, which exist in the project area, have been identified as EFH for juvenile and adult red drum, juvenile goliath grouper, and juvenile and adult gray snapper by the GMFMC under provisions of the Magnuson-Stevens Act. Additionally, a number of other species using these habitats are prey species for federally managed species. Mangroves occur beneath and adjacent to the I-75 Caloosahatchee River bridges. Mangroves, estuarine waters, and mud, sand, shell, and rock substrates are specific categories of EFH that may be directly impacted by the project.

A preliminary assessment of EFH within the existing I-75 right-of-way was undertaken and this assessment is presented in **Table 5.2**. The primary area for EFH involvement is the Caloosahatchee River in Lee County. Approximately 14 acres of EFH were identified at the Caloosahatchee River for all life history stages of the shark species within the Atlantic Highly Migratory Species (AHMS) complex which may occur within this area. These sharks include the bull, tiger, blacktip, and bonnethead. Suitable habitat for the sandbar shark occurs within Collier County and consists of approximately 11 acres. Approximately 16 acres of EFH were mapped in the same general area of the Caloosahatchee River for all life history stages of the Coastal Migratory Pelagics complex, Reef Fish complex, Red Drum, and Shrimp complex.

Table 5.2: Area of EFH within the I-75 Right-of-Way

Species/EFH Group	Approximate Acres of EFH
Atlantic Highly Migratory Species (AHMS)	
Bull shark	14
Tiger Shark	14
Blacktip Shark	14
Bonnethead Shark	14
Sandbar Shark	11
Coastal Migratory Pelagics (CMP)	16
Reef Fish	16
Red Drum	16
Shrimp	16

Impacts to EFH will likely occur as part of the widening of the Caloosahatchee River bridges. An assessment of EFH should occur during the project’s PD&E phase and avoidance and minimization measures should be identified and implemented during later project phases to reduce impacts to EFH to the extent practicable. Best management practices (BMPs) should be utilized during construction activities to minimize adverse impacts to wetland habitats used by NMFS resources. Compensatory mitigation should be provided for any unavoidable adverse impacts to EFH wetlands resulting from proposed improvements.

During the project’s PD&E phase, wetlands and surface water assessments should be undertaken in accordance with Part 2, Chapter 17 of the FDOT PD&E Manual, and information collected included in a Natural Resources Evaluation developed for the project.

5.4 Floodplains

Based on Digital Flood Insurance Rate Maps (DFIRM) 100-year Flood Zone data, there is approximately 1,500 acres of 100-year floodplain existing within 200 feet of the I-75 corridor. The project corridor crosses the following flood zones which are subject to inundation by the one percent annual chance flood (i.e., 100-year storm):

AE – Special flood hazard area inundated by the 100-year flood with a base flood elevation determined.

AH – Special flood hazard area inundated by the 100-year flood with flood depths of 1 to 3 feet (usually areas of ponding) with a base flood elevation determined.

The 100-year floodplain is located throughout the length of the I-75 corridor and is primarily concentrated at the southern end of the project area, south of Bonita Beach Road. The project also crosses the 100-year floodplain associated with the Caloosahatchee River and Six Mile Cypress Slough Preserve, located in the northern and central project segment, respectively.

While the majority of project related improvements will occur within existing right-of-way, impacts to the 100-year floodplain are anticipated to occur. Any encroachment into the 100-year floodplain will be assessed and reviewed by the South Florida Water Management District (SFWMD) as part of the ERP process, and any encroachments which adversely affects conveyance, storage, water quality or adjacent lands will not be allowed (SFWMD ERP Applicant’s Handbook, Volume II, Section 3.6).

The project corridor also crosses over multiple Federal Emergency Management Agency designated regulated floodways, including:

- Popash Creek
- Stroud Creek
- Six Mile Cypress Slough
- Estero River
- South Branch
- Leitner Creek
- Imperial River

Proposed project improvements will expand existing crossings over these regulated floodways, and these expansions cannot result in an increase in the upstream flood elevation that will result in impacts to adjacent lands.

During the project’s PD&E phase, floodplain and regulated floodway encroachments should be assessed and required mitigative alternatives identified in accordance with Part 2, Chapters 3 and 13 of the FDOT PD&E Manual.

5.5 Sole Source Aquifers

There are no designated US Environmental Protection Agency (EPA) Sole Source Aquifers in or adjacent to the project area.

5.6 Water Resources

Stormwater runoff from I-75 is currently collected and treated via vegetated swales located along both sides of the roadway before offsite conveyance to adjacent waterbodies and existing stormwater management areas. Within 200 feet of the project corridor, there are 20 impaired waters, five of which have adopted or planned Total Maximum Daily Loads (TMDLs). Stormwater discharges to these impaired water bodies will require additional treatment in the form of increased hydraulic residence time, pollutant source controls, conveyance and pretreatment BMPs, and/or water quality treatment enhancements (SFWMD ERP Applicant’s Handbook, Volume II, Appendix E).

The project corridor also crosses two Outstanding Florida Waters (OFWs) and any direct discharge to these areas will require an additional fifty percent of the SFWMD ERP required stormwater treatment volume (SFWMD ERP Applicant's Handbook, Volume II, Section 4.1.3).

Stormwater treatment systems developed and permitted as part of the initial expansion of segments of the I-75 project corridor (ERP Permit Nos.: 36-03802-P and 11-00396-S) accounted for additional stormwater treatment needs associated with future roadway widenings. However, additional treatment areas and expansions of existing treatment areas will be required to accommodate many of the proposed roadway typical sections. As a result, additional offsite treatment areas will likely be needed.

During project construction, a Storm Water Pollution Prevention Plan (SWPPP) in accordance with National Pollution Discharge Elimination System guidelines will also be required to control the effects of construction related stormwater runoff.

During the project's PD&E phase, stormwater management alternatives which meet SFWMD ERP and FDEP NPDES criteria should be assessed and required stormwater treatment requirement identified in accordance with Part 2, Chapters 3 and 11 of the FDOT PD&E Manual.

5.7 Aquatic Preserves

There are no designated Aquatic Preserves in or adjacent to the project area.

5.8 Outstanding Florida Waters

The project's Existing Conditions Report identified two Outstanding Florida Waters (OFWs) within 200 feet of the I-75 project corridor. These two OFWs include the Caloosahatchee National Wildlife Refuge and Estero Bay Tributaries, which are located in the northern and central segments of the project, respectively. Both OFWs are also designated by the National Oceanic and Atmospheric Administration (NOAA) as Marine Protection Areas. Any direct discharge of stormwater runoff from the project area into these two OFWs will require an additional fifty percent of the SFWMD ERP required treatment volume (SFWMD ERP Applicant's Handbook, Volume II, Section 4.1.3).

During the project's PD&E phase, stormwater management alternatives should be assessed and required stormwater treatment requirement identified in accordance with Part 2, Chapters 3 and 11 of the FDOT PD&E Manual.

5.9 Wild and Scenic Rivers

There are no designated Wild and Scenic Rivers in or adjacent to the project area.

5.10 Coastal Barrier Resources

There are no Coastal Barrier Resources in or adjacent to the project area.

6.0 Physical

6.1 Highway Traffic Noise

Potential noise sensitive sites are present along the I-75 corridor, including residential and business properties, community centers, a hospital, recreation sites, cultural centers, golf courses, emergency services, schools, and religious centers. Increased capacity on I-75 and at the 14 project area interchanges has the potential to impact some of these sites. Currently, 17 FDOT precast concrete noise barriers exist along the corridor to mitigate existing traffic noise. With anticipated increases in traffic volumes resulting from widening of the I-75 corridor, it will be important to determine how future build conditions may impact those areas with existing noise barriers, as well as areas currently without noise barriers. Traffic noise should be evaluated during the PD&E process in accordance with Part 2, Chapter 18 of the FDOT PD&E Manual.

6.2 Air Quality

According to the Existing Conditions Report, Collier and Lee Counties are in a designated attainment area as defined by the US Environmental Protection Agency (EPA), for all National Ambient Air Quality Standards (NAAQS). Therefore, the Clean Air Act conformity requirements do not apply to this project at this time. During the project's PD&E phase, an evaluation of project level air quality effects should be assessed in accordance with Manual, Part 2, Chapter 19, of the FDOT PD&E Manual.

During construction activities, project level air quality impacts may occur from dust as a result of earthwork and unpaved roads. The PD&E Manual, Part 2, Chapter 19 addresses ways to minimize these impacts by adherence to applicable state regulations and applicable FDOT Standard Specifications for Road and Bridge Construction.

6.3 Contamination

The project's Existing Conditions Report identified two brownfields, 31 US Environmental Protection Agency (EPA) Conservation and Recovery Act (RCRA) facilities, 48 storage tank contamination monitoring sites, 23 Super Act risk sources, and two waste cleanup responsible party sites (one open and one closed) within 200 feet of the project corridor. The approximate location of these sites is provided in the Existing Conditions Report.

To better identify sites which may affect the proposed project, a desktop search was performed for contamination sites using the Florida Department of Environmental Protection's MapDirect databases. Within 500 feet of the study corridor, 32 regulatory listings were identified. **Table 6.1** summarizes the number of sites identified using each database reviewed.

Table 6.3: Area of EFH within the I-75 Right-of-Way

Name of Database	Number of listed sites within 500 feet
FDEP Cleanup	2
Registered Petroleum Storage Tanks	23
Drycleaning Solvent Cleanup Program	0
Organics Processing	2
Brownfield Sites	0
Solid Waste Test Sites	0
Institutional Controls Registry	0
Florida Superfund	0
Florida State Funded Cleanup	0
Site Investigation Section Sites	0
Hazardous Waste Transfer Facilities	0
Hazardous Waste Transporter Facilities	1
Used Oil Transfer Facilities	1
Large Quantity Hazardous Waste Generators	0
Closed Hazardous Waste Facilities	3
Hazardous Waste TSDs	0
Oil and Gas Wells	0
State-Owned Land Cleanup Program	0
Waste Cleanup Responsible Party	0
Wastewater Residual Application	0

These databases are suggestive of sites with a “potential” for contamination issues. Two sites listed on the FDEP Cleanup database have reported discharges in the past and have not completed site rehabilitation. These sites are located at the southwest corner of Lockett Road and I-75, and include:

- Pilot Travel Center #352, 6050 Plaza Drive, Fort Myers, and
- Budd Tire and Truck Repair, 6050 Plaza Drive, Fort Myers

The remainder of the listed sites are not expected to impact the project. Based on preliminary research, they are operating in compliance with environmental regulations, have only minor administrative violations, or are no longer associated with potential contaminants.

During the project’s PD&E phase, further level of the project corridor should be undertaken, including supplemental regulatory research, site reconnaissance, and other desktop literature reviews, in accordance with Part 2, Chapter 20 of the FDOT PD&E Manual.

6.4 Utilities and Railroads

6.4.1 Utilities

Based on field reconnaissance and reviews of existing data, including as-built plans and Sunshine 811 design tickets, total of 22 utility agency owners (UAO) were identified within and adjacent to the I-75 project corridor. These UAOs are shown in **Table 6.2** and include communication, water, sewer, gas,

and electric distribution and transmission lines. The majority of these utilities are anticipated to be located along project related interchanges or cross streets and not within the I-75 corridor right-of-way.

Table 6.2: Utilities Agency Owners

AT&T Transmission	Florida Governmental Utility Authority
Bonita Springs Utilities	Florida Power & Light Distribution
CenturyLink	Florida Power & Light Transmission
City of Bonita Springs	Hotwire Communications
City of Fort Myers	Lee County Traffic
City of Naples	Lee County Utilities
Collier County Info Tech	Lee County Electric Co-Op Distribution
Collier County Traffic Ops	Lee County Co-Op Transmission
Collier County Utilities	Lee Health
Comcast	Summit Broadband
Crown Castle	TECO Peoples Gas

Potential conflicts associated with these utilities include water, sewer, buried fiber, buried copper, and power poles. If Florida Power & Light or Lee County Electric Co-Op is in conflict, then joint users on their poles will also be in conflict. The City of Bonita Springs has three facilities between East Terry Street and Miami Fields that cross I-75. There are no known compensable utilities.

During the project’s PD&E phase, analysis of existing utilities along and crossing the project corridor should be undertaken, including coordination with UAOs and the development of a Utilities Assessment Package in accordance with Part 2, Chapters 3 and 21 of the FDOT PD&E Manual.

6.4.2 Railroads

There are no active railroad lines in or adjacent to the project area.

6.5 Construction

Construction activities for the proposed improvements may have minor air, noise, vibration, water quality, traffic flow, and visual impacts for those residents and travelers within the immediate vicinity of the project.

The air quality impact will be temporary and will primarily be in the form of emissions from diesel-powered construction equipment. Air pollution associated with the creation of airborne particles will be effectively controlled through the use of watering or the application of other controlled materials in accordance with FDOT's "Standard Specifications for Road and Bridge Construction" as directed by the FDOT Project Engineer.

Noise and vibrations impacts will be from the heavy equipment movement and bridge pile driving. Noise control measures will include those contained in FDOT's "Standard Specifications for Road and Bridge Construction". Adherence to local construction noise and/or construction vibration ordinances by the contractor will also be required where applicable.

Water quality impacts resulting from erosion and sedimentation will be controlled in accordance with FDOT's "Standard Specifications for Road and Bridge Construction" and through the use of Best Management Practices.

Maintenance of traffic and sequence of construction will be planned and scheduled so as to minimize traffic delays throughout the project. Signs will be used as appropriate to provide notice of road closures and other pertinent information to the traveling public. The local news media will be notified in advance of road closings and other construction-related activities which could excessively inconvenience the community. A sign providing the name, address, and telephone of a FDOT contact person will be displayed on-site to assist the public in obtaining immediate answers to questions and logging complaints about project activity.

Construction of the proposed improvements is not anticipated to result in significant construction impacts.

6.6 USCG Permit

The proposed project crosses over the Okeechobee Waterway (Caloosahatchee River) via the I-75 southbound and northbound bridges (Bridge Numbers 120083 & 120084). The Okeechobee Waterway is classified as a navigable waterway that extends from Lake Okeechobee to the east and opens to San Carlos Bay to the west. As such, any modifications to the existing bridge structures would require a permit or permit modification from the US Coast Guard (USCG) pursuant to the General Bridge Act of 1946 (33 USC 525) and Section 10 permit pursuant to the Rivers and Harbors Act, and Section 404 from the US Army Corps of Engineers (USACE) pursuant to the Clean Water Act. The Okeechobee Waterway is also a federal public works project governed under Section 408 of the Clean Water Act and would require a letter of permission from the USACE for any modifications to the waterway.

During the project's PD&E phase, additional assessment of the Caloosahatchee River bridge crossing should be completed, and coordination with the USCG and other appropriate agencies should be undertaken, in accordance with Part 1, Chapters 12 & 16 of the FDOT PD&E Manual.

7.0 Anticipated Environmental Permits & Approvals

Anticipated project related environmental permits and approvals and the primary regulatory/resource agency involved in their approvals are shown in **Table 7.1**.

Table 7.4: Anticipated Project Related Environmental Permits & Approvals

Regulatory/Resource Agency	Permit/Approval
US Army Corps of Engineers	Section 404 Dredge and Fill Permit (retained waters)
US Army Corps of Engineers/South Florida Water Management District	Section 408 Alteration of a USACE Civil Works Project, Letter of Approval
US Army Corps of Engineers	Section 10 Permit
US Coast Guard	Bridge Permit (or modification)
US Fish and Wildlife Service	Section 7 Consultation
US Fish and Wildlife Service	Take Permit
National Marine Fisheries Service	Section 7 Consultation
National Park Service/Florida Department of Environmental Protection	Land and Water Conservation Act Fund Act, Conversion Approval
Florida Department of Environmental Protection	Section 404 Dredge and Fill Permit (assumed waters)
Florida Department of Environmental Protection	Sovereign Submerged Lands Easement (or modification)
Florida Department of Environmental Protection	National Pollutant Discharge Elimination System Permit
South Florida Water Management District	Environmental Resource Permit
Florida Fish and Wildlife Conservation Commission	Gopher Tortoise Relocation Permit
Florida Fish and Wildlife Conservation Commission	Incidental Take Permit