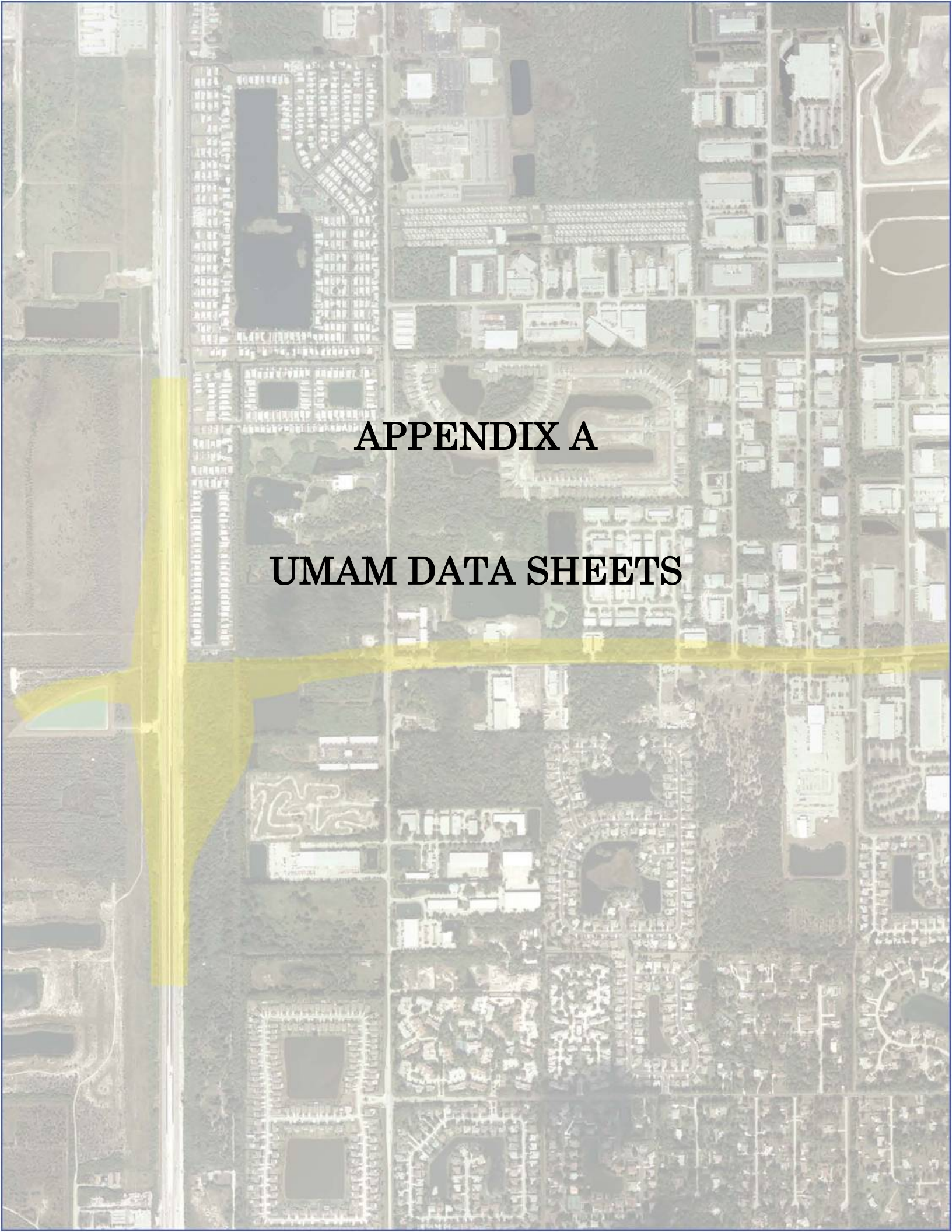


APPENDIX A

UMAM DATA SHEETS

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Ellis Road		**W-20**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
618	**PSS1C**	**Impact**	Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Basin 22, Central Indian River Lagoon	**Crane Creek, Class III**	**N/A**

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Disturbed shrub-dominated wetland which disharges to a drainage ditch in the headwaters section of Crane Creek.

Assessment area description

Disturbed shrub wetland dominated by willow but recently partially cleared and currently with open water with a duckweed cover. The wetland & adjacent uplands are contained within a chainlink fence.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Wetland bordered on the east and south by recently cleared vacant land, on the west by commercial development and on the north by Ellis Road	**Common**

Functions	Mitigation for previous permit/other historic use
Wildlife habitat, water quality enhancement, flood attenuation	**N/A**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Wading birds, hawks, owls, songbirds, woodpeckers, raccoon, rabbit, opossum, gray squirrel, water snakes, frogs, water turtles, anoles	**Limited foraging and nesting habitat for listed wading birds**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

None

Additional relevant factors:

The wetland is a highly disturbed shrub-dominated system with the adjacent uplands as maintained grassland. It is located in an urban setting and the wetland & adjacent uplands are contained within a chainlink fence.

Assessment conducted by:	Assessment date(s):
T. J. Deuerling	**04/28/11**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
Ellis Road	**-**	**W-19**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Impact	**T. J. Deuerling**	**04/28/11**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

			Current	With Impact
.500(6)(a) Location and Landscape Support		a. Quality and quantity **of habitat support** outside of AA.		
		b. **Invasive plant species.**	X	
		c. **Wildlife access** to and from AA (proximity and barriers).		
		d. **Downstream benefits** provided to fish and wildlife.		
		e. Adverse impacts to wildlife in AA from **land uses** outside of AA.	X	
		f. **Hydrologic connectivity** (impediments and flow restrictions).		
Current	**With Impact**	g. **Dependency** of downstream habitats on quantity or quality of discharges.		
		h. Protection of wetland functions provided by uplands (**upland** AAs only).		
4	**0**	Notes: Wetland is located in urban setting. Poor wild;life corridor opportunity.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(b) Water Environment (n/a for uplands)		a. Appropriateness of **water levels and flows**.		
		b. Reliability of **water level indicators**.	X	
		c. Appropriateness of **soil moisture**.	X	
		d. **Flow rates**/points of discharge.		
		e. **Fire frequency**/severity.		
		f. **Type of vegetation**.		
		g. **Hydrologic stress** on vegetation.		
		h. **Use by animal**s with hydrologic requirements.		
		i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ).		
		j. **Water quality of standing water by observation** (I.e., discoloration, turbidity).		
Current	**With Impact**	k. **Water quality data** for the type of community.		
		l. **Water depth, wave energy, and currents**.		
8	**0**	Notes: Historic hydrology has been impacted by past ditching and development.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(c) Community Structure		I. Appropriate/desirable species		
		II. Invasive/exotic plant species	X	
		III. Regeneration/recruitment	X	
X Vegetation		IV. Age, size distribution.		
		V. Snags, dens, cavity, etc.		
Benthic		VI. Plants' condition.		
		VII. Land management practices.		
Both		VIII. Topographic features (refugia, channels, hummocks).		
		IX. Submerged vegetation (only score if present).		
		X. Upland assessment area		
Current	**With Impact**	Notes: Native plant species dominant; however area highly disturbed.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
8	**0**			

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	
Current	**With Impact**
0.67	0.00

Impact Acres =	0

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.00

Impact Delta (ID)	
Current - w/Impact	0.67

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Ellis Road		**W-19**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
617	**PFO1C**	**Impact**	Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Basin 22, Central Indian River Lagoon	**Crane Creek, Class III**	**N/A**

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

W-19 is a seasonally inundated, forested wetland which extends off-site to the southwest. which discharges via sheet flow and a ditch to the L-15 Canal.

Assessment area description

Red maple, laurel oak and Florida elm along with some cabbage palm form a closed canopy. Groundcover species include seedling and sapling canopy species, swamp fern, poison ivy and wild coffee.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Wetland is bordered on the south by residential development, on the east by commercial development, on the west by temperate hardwood hammock and commercial development and on the north by Ellis	**Common**
Functions **Wildlife habitat, water quality enhancement, flood attenuation**	Mitigation for previous permit/other historic use **N/A**
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found) **Wading birds, hawks, owls, songbirds, woodpeckers, raccoon, rabbit, opossum, gray squirrel, water snakes, frogs, water turtles, anoles**	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) **Limited foraging and nesting habitat for listed wading birds**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Northern Cardinal

Additional relevant factors:

The wetland is a highly disturbed forested system. It is located in an urban setting.

Assessment conducted by:	Assessment date(s):
T. J. Deuerling	**04/28/11**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
Ellis Road	**-**	**W-18**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Impact	**T. J. Deuerling**	**04/28/11**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

			Current	With Impact
.500(6)(a) Location and Landscape Support		a. Quality and quantity **of habitat support** outside of AA.		
		b. **Invasive plant species.**	X	
		c. **Wildlife access** to and from AA (proximity and barriers).		
		d. **Downstream benefits** provided to fish and wildlife.		
		e. Adverse impacts to wildlife in AA from **land uses** outside of AA.	X	
		f. **Hydrologic connectivity** (impediments and flow restrictions).		
Current	**With Impact**	g. **Dependency** of downstream habitats on quantity or quality of discharges.		
		h. Protection of wetland functions provided by uplands (**upland** AAs only).		
4	**0**	Notes: Wetland is located in urban setting. Poor wild;life corridor opportunity.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(b) Water Environment (n/a for uplands)		a. Appropriateness of **water levels and flows**.		
		b. Reliability of **water level indicators**.	X	
		c. Appropriateness of **soil moisture**.	X	
		d. **Flow rates**/points of discharge.		
		e. **Fire frequency**/severity.		
		f. **Type of vegetation**.		
		g. **Hydrologic stress** on vegetation.		
		h. **Use by animal**s with hydrologic requirements.		
		i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ).		
		j. **Water quality of standing water by observation** (I.e., discoloration, turbidity).		
Current	**With Impact**	k. **Water quality data** for the type of community.		
		l. **Water depth, wave energy, and currents**.		
7	**0**	Notes: Historic hydrology has been impacted by past ditching and development.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(c) Community Structure		I. Appropriate/desirable species		
		II. Invasive/exotic plant species	X	
		III. Regeneration/recruitment	X	
X Vegetation		IV. Age, size distribution.		
		V. Snags, dens, cavity, etc.		
Benthic		VI. Plants' condition.		
		VII. Land management practices.		
Both		VIII. Topographic features (refugia, channels, hummocks).		
		IX. Submerged vegetation (only score if present).		
		X. Upland assessment area		
Current	**With Impact**	Notes: Native plant species dominant however groundcover maintained by mowing.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
7	**0**			

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	
Current	**With Impact**
0.60	0.00

Impact Acres =	0

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.00

Impact Delta (ID)	
Current - w/Impact	0.60

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Ellis Road		**W-18**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
617	**PFO1C**	**Impact**	Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Basin 22, Central Indian River Lagoon	**Crane Creek, Class III**	**N/A**

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Disturbed forested wetland which disharges to a drainage ditch in the headwaters section of Crane Creek.

Assessment area description

Disturbed forested wetland dominated by mesic oaks and red maple with a groundcover of seedling canopy species, swamp fern and Virginia chain fern. Groundcover is periodically mowed.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Wetland bordered on the east and west by disturbed pine flatwoods or temperate hardwood hammock, on the south by residential development and on the north by Ellis Road.	**Common**
Functions **Wildlife habitat, water quality enhancement, flood attenuation**	Mitigation for previous permit/other historic use **N/A**
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found) **Wading birds, hawks, owls, songbirds, woodpeckers, raccoon, rabbit, opossum, gray squirrel, water snakes, frogs, water turtles, anoles**	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) **Limited foraging and nesting habitat for listed wading birds**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

None

Additional relevant factors:

The wetland is a disturbed forested system with the groundcover maintained by mowing. It is located in an urban setting

Assessment conducted by:	Assessment date(s):
T. J. Deuerling	**04/28/11**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
Ellis Road	**-**	**W-17**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Impact	**T. J. Deuerling**	**04/28/11**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

		Current	With Impact
.500(6)(a) Location and Landscape Support	a. Quality and quantity **of habitat support** outside of AA.		
	b. **Invasive plant species.**	X	
	c. **Wildlife access** to and from AA (proximity and barriers).		
	d. **Downstream benefits** provided to fish and wildlife.		
	e. Adverse impacts to wildlife in AA from **land uses** outside of AA.	X	
	f. **Hydrologic connectivity** (impediments and flow restrictions).		
	g. **Dependency** of downstream habitats on quantity or quality of discharges.		
	h. Protection of wetland functions provided by uplands (**upland** AAs only).		
Current 4 / **With Impact** 0	Notes: Wetland is located in urban setting. Poor wild;life corridor opportunity.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(b) Water Environment (n/a for uplands)	a. Appropriateness of **water levels and flows**.		
	b. Reliability of **water level indicators**.	X	
	c. Appropriateness of **soil moisture**.	X	
	d. **Flow rates**/points of discharge.		
	e. **Fire frequency**/severity.		
	f. **Type of vegetation**.		
	g. **Hydrologic stress** on vegetation.		
	h. **Use by animal**s with hydrologic requirements.		
	i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ).		
	j. **Water quality of standing water by observation** (I.e., discoloration, turbidity).		
	k. **Water quality data** for the type of community.		
	l. **Water depth, wave energy, and currents**.		
Current 7 / **With Impact** 0	Notes: Historic hydrology has been impacted by past ditching and development.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(c) Community Structure X Vegetation ____ Benthic ____ Both	I. Appropriate/desirable species		
	II. Invasive/exotic plant species	X	
	III. Regeneration/recruitment	X	
	IV. Age, size distribution.		
	V. Snags, dens, cavity, etc.		
	VI. Plants' condition.		
	VII. Land management practices.		
	VIII. Topographic features (refugia, channels, hummocks).		
	IX. Submerged vegetation (only score if present).		
	X. Upland assessment area		
Current 8 / **With Impact** 0	Notes: Native plant species dominant ;however Brazilian pepper invading the system.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	
Current	**With Impact**
0.63	0.00

Impact Acres =	0

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.00

Impact Delta (ID)	
Current - w/Impact	0.63

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Ellis Road		**W-17**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
617	**PFO1C**	**Impact**	Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Basin 22, Central Indian River Lagoon	**Crane Creek, Class III**	**N/A**

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Disturbed forested wetland which sheet flows to the L-15 Canal.

Assessment area description

Disturbed forested wetland dominated by mesic oaks, red maple and elm with some cabbage palm and a groundcover seedling & sapling canopy species, swamp fern, poison ivy and wild coffee. Brazilian pepper invading the system.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Wetland bordered on the east and west by commercial development, on the south by Ellis Road and on the east by temperate hardwood hammock.	**Common**
Functions **Wildlife habitat, water quality enhancement, flood attenuation**	Mitigation for previous permit/other historic use **N/A**
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found) **Wading birds, hawks, owls, songbirds, woodpeckers, raccoon, rabbit, opossum, gray squirrel, water snakes, frogs, water turtles, anoles**	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) **Limited foraging and nesting habitat for listed wading birds**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

None

Additional relevant factors:

The wetland is a highly disturbed forested system being invaded by Brazilian pepper. It is located in an urban setting.

Assessment conducted by:	Assessment date(s):
T. J. Deuerling	**04/28/11**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
Ellis Road	**-**	**W-16**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Impact	**T. J. Deuerling**	**04/28/11**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

		Current	With Impact
.500(6)(a) Location and Landscape Support	a. Quality and quantity **of habitat support** outside of AA.		
	b. **Invasive plant species.**	X	
	c. **Wildlife access** to and from AA (proximity and barriers).		
	d. **Downstream benefits** provided to fish and wildlife.		
	e. Adverse impacts to wildlife in AA from **land uses** outside of AA.	X	
	f. **Hydrologic connectivity** (impediments and flow restrictions).		
	g. **Dependency** of downstream habitats on quantity or quality of discharges.		
	h. Protection of wetland functions provided by uplands (**upland** AAs only).		
Current 2 / **With Impact** 0	Notes: Wetland is located in urban setting. Poor wild;life corridor opportunity.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(b) Water Environment (n/a for uplands)	a. Appropriateness of **water levels and flows**.		
	b. Reliability of **water level indicators**.	X	
	c. Appropriateness of **soil moisture**.	X	
	d. **Flow rates**/points of discharge.		
	e. **Fire frequency**/severity.		
	f. **Type of vegetation**.		
	g. **Hydrologic stress** on vegetation.		
	h. **Use by animal**s with hydrologic requirements.		
	i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ).		
	j. **Water quality of standing water by observation** (I.e., discoloration, turbidity).		
	k. **Water quality data** for the type of community.		
	l. **Water depth, wave energy, and currents**.		
Current 7 / **With Impact** 0	Notes: Historic hydrology has been impacted by past ditch & borrow pit construction.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(c) Community Structure X Vegetation ____ Benthic ____ Both	I. Appropriate/desirable species		
	II. Invasive/exotic plant species	X	
	III. Regeneration/recruitment	X	
	IV. Age, size distribution.		
	V. Snags, dens, cavity, etc.		
	VI. Plants' condition.		
	VII. Land management practices.		
	VIII. Topographic features (refugia, channels, hummocks).		
	IX. Submerged vegetation (only score if present).		
	X. Upland assessment area		
Current 8 / **With Impact** 0	Notes: Native plant species dominant ;however Brazilian pepper invading the system.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	
Current	**With Impact**
0.57	0.00

Impact Acres =	0

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.00

Impact Delta (ID)	
Current - w/Impact	0.57

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Ellis Road		**W-16**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
617	**PFO1C**	**Impact**	Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Basin 22, Central Indian River Lagoon	**Crane Creek, Class III**	**N/A**

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Disturbed forested wetland which sheet flows to the L-15 Canal.

Assessment area description

Disturbed forested wetland dominated by mesic oaks, red maple and elm with some cabbage palm and a groundcover seedling & sapling canopy species, swamp fern, poison ivy and wild coffee. Brazilian pepper invading the system.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Wetland bordered on all sides by institutional develoment or Ellis Road.	**Common**

Functions	Mitigation for previous permit/other historic use
Wildlife habitat, water quality enhancement, flood attenuation	**N/A**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Wading birds, hawks, owls, songbirds, woodpeckers, raccoon, rabbit, opossum, gray squirrel, water snakes, frogs, water turtles, anoles	**Limited foraging and nesting habitat for listed wading birds**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Red-bellied Woodpecker

Additional relevant factors:

The wetland is a highly disturbed forested system being invaded by Brazilian pepper. It is located in an urban setting.

Assessment conducted by:	Assessment date(s):
T. J. Deuerling	**04/28/11**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
Ellis Road	**-**	**W-14**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Impact	**T. J. Deuerling**	**04/28/11**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

		Current	With Impact
.500(6)(a) Location and Landscape Support	a. Quality and quantity **of habitat support** outside of AA.		
	b. **Invasive plant species.**	X	
	c. **Wildlife access** to and from AA (proximity and barriers).		
	d. **Downstream benefits** provided to fish and wildlife.		
	e. Adverse impacts to wildlife in AA from **land uses** outside of AA.	X	
	f. **Hydrologic connectivity** (impediments and flow restrictions).		
	g. **Dependency** of downstream habitats on quantity or quality of discharges.		
	h. Protection of wetland functions provided by uplands (**upland** AAs only).		
Current 6 / **With Impact 0**	Notes: Some undeveloped land adjacent to wetland, however poor wildlife corridor connection due urbanization of general area.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	

		Current	With Impact
.500(6)(b) Water Environment (n/a for uplands)	a. Appropriateness of **water levels and flows**.		
	b. Reliability of **water level indicators**.	X	
	c. Appropriateness of **soil moisture**.	X	
	d. **Flow rates**/points of discharge.		
	e. **Fire frequency**/severity.		
	f. **Type of vegetation**.		
	g. **Hydrologic stress** on vegetation.		
	h. **Use by animal**s with hydrologic requirements.		
	i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ).		
	j. **Water quality of standing water by observation** (I.e., discoloration, turbidity).		
	k. **Water quality data** for the type of community.		
	l. **Water depth, wave energy, and currents**.		
Current 7 / **With Impact 0**	Notes: Historic hydrology has been impacted by past ditch & borrow pit construction.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	

		Current	With Impact
.500(6)(c) Community Structure	I. Appropriate/desirable species		
	II. Invasive/exotic plant species	X	
	III. Regeneration/recruitment	X	
X Vegetation	IV. Age, size distribution.		
	V. Snags, dens, cavity, etc.		
_____ Benthic	VI. Plants' condition.		
	VII. Land management practices.		
_____ Both	VIII. Topographic features (refugia, channels, hummocks).		
	IX. Submerged vegetation (only score if present).		
	X. Upland assessment area		
Current 8 / **With Impact 0**	Notes: Native plant species dominant ;however Brazilian pepper invading the system.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	
Current	**With Impact**
0.70	0.00

Impact Acres =	0

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.00

Impact Delta (ID)	
Current - w/Impact	0.70

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Ellis Road		**W-14**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
617	**PFO1C**	**Impact**	Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Basin 22, Central Indian River Lagoon	**Crane Creek, Class III**	**N/A**

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Disturbed forested wetland which sheet flows to a ditch adjacent to John Rodes Boulevard and ultimately to the L-15 Canal.

Assessment area description

Disturbed forested wetland dominated by mesic oaks, red maple and elm with some cabbage palm and a sparse groundcover seedling & sapling canopy species and swamp fern. Brazilian pepper invading the system.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Wetland bordered on west by John Rode Blvd. & drainage ditch, on north by residential development, on south by a school and on east by mesic hardwood hammock, borrow pit & disturbed land.	**Common**
Functions **Wildlife habitat, water quality enhancement, flood attenuation**	Mitigation for previous permit/other historic use **N/A**
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found) **Wading birds, hawks, owls, songbirds, woodpeckers, raccoon, rabbit, opossum, gray squirrel, water snakes, frogs, water turtles, anoles**	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) **Limited foraging and nesting habitat for listed wading birds**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Raccoon Track, Boat-tailed Grackle

Additional relevant factors:

The wetland is a highly disturbed forested system being invaded by Brazilian pepper. It is located in an urban setting.

Assessment conducted by:	Assessment date(s):
T. J. Deuerling	**04/28/11**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
Ellis Road	**-**	**W-14**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Impact	**T. J. Deuerling**	**04/28/11**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

		Current	With Impact
.500(6)(a) Location and Landscape Support	a. Quality and quantity **of habitat support** outside of AA.	X	
	b. **Invasive plant species.**		
	c. **Wildlife access** to and from AA (proximity and barriers).	X	
	d. **Downstream benefits** provided to fish and wildlife.		
	e. Adverse impacts to wildlife in AA from **land uses** outside of AA.		
	f. **Hydrologic connectivity** (impediments and flow restrictions).		
	g. **Dependency** of downstream habitats on quantity or quality of discharges.		
	h. Protection of wetland functions provided by uplands (**upland** AAs only).		
Current 6 / **With Impact 0**	Notes: AA located in developed area and bordered by I-95 and a mobile home park. Vacant land on remaining sides but poor wildlife corridor connection to anywhere except developed properties.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(b) Water Environment (n/a for uplands)	a. Appropriateness of **water levels and flows**.		
	b. Reliability of **water level indicators**.	X	
	c. Appropriateness of **soil moisture**.	X	
	d. **Flow rates**/points of discharge.		
	e. **Fire frequency**/severity.		
	f. **Type of vegetation**.		
	g. **Hydrologic stress** on vegetation.		
	h. **Use by animal**s with hydrologic requirements.		
	i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ).		
	j. **Water quality of standing water by observation** (I.e., discoloration, turbidity).		
	k. **Water quality data** for the type of community.		
	l. **Water depth, wave energy, and currents**.		
Current 7 / **With Impact 0**	Notes: Historic hydrology has been impacted by past development & canal construction.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(c) Community Structure X Vegetation ____ Benthic ____ Both	I. Appropriate/desirable species		
	II. Invasive/exotic plant species	X	
	III. Regeneration/recruitment	X	
	IV. Age, size distribution.		
	V. Snags, dens, cavity, etc.		
	VI. Plants' condition.		
	VII. Land management practices.		
	VIII. Topographic features (refugia, channels, hummocks).		
	IX. Submerged vegetation (only score if present).		
	X. Upland assessment area		
Current 8 / **With Impact 0**	Notes: Native plant species dominant, but Brazilian pepper invading the system.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	
Current	**With Impact**
0.70	0.00

Impact Acres =	0

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.00

Impact Delta (ID)	
Current - w/Impact	0.70

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Ellis Road		**W-14**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
617	**PFO1C**	**Impact**	Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Basin 22, Central Indian River Lagoon	**Crane Creek, Class III**	**N/A**

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Disturbed forested wetland which discharges to a drainage ditch in the headwaters area of Crane Creek.

Assessment area description

Disturbed forested wetland dominated by mesic oaks, red maple, cabbage palm and elm with sparse groundcover seedling & sapling canopy species and some swamp fern. Brazilian pepper invading the system adjacent to the ditch.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Wetland bordered on west by a drainage canal and mobile home park, on the south by a drainage canal & associated maintenance road and on the remaining sides by disturbed mesic hammock.	**Common**

Functions	Mitigation for previous permit/other historic use
Wildlife habitat, water quality enhancement, flood attenuation	**N/A**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Wading birds, hawks, owls, songbirds, woodpeckers, raccoon, rabbit, opossum, gray squirrel, water snakes, frogs, water turtles, anoles	**Limited foraging and nesting habitat for listed wading birds**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Northern Cardinal, Northern Mockingbird

Additional relevant factors:

The wetland is a remnant of a much larger system that was filled for development and agricultural fields. The past land use practices have impacted the hydrology.

Assessment conducted by:	Assessment date(s):
T. J. Deuerling	**04/28/11**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
Ellis Road	**-**	**W-13**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Impact	**T. J. Deuerling**	**04/28/11**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

		Current	With Impact
.500(6)(a) Location and Landscape Support	a. Quality and quantity **of habitat support** outside of AA.	X	
	b. **Invasive plant species.**		
	c. **Wildlife access** to and from AA (proximity and barriers).	X	
	d. **Downstream benefits** provided to fish and wildlife.		
	e. Adverse impacts to wildlife in AA from **land uses** outside of AA.		
	f. **Hydrologic connectivity** (impediments and flow restrictions).		
	g. **Dependency** of downstream habitats on quantity or quality of discharges.		
	h. Protection of wetland functions provided by uplands (**upland** AAs only).		
Current 6 / **With Impact 0**	Notes: AA located in developed area and bordered by I-95 and a mobile home park. Vacant land on remaining sides but poor wildlife corridor connection to anywhere except developed properties.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(b) Water Environment (n/a for uplands)	a. Appropriateness of **water levels and flows**.		
	b. Reliability of **water level indicators**.	X	
	c. Appropriateness of **soil moisture**.	X	
	d. **Flow rates**/points of discharge.		
	e. **Fire frequency**/severity.		
	f. **Type of vegetation**.		
	g. **Hydrologic stress** on vegetation.		
	h. **Use by animal**s with hydrologic requirements.		
	i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ).		
	j. **Water quality of standing water by observation** (I.e., discoloration, turbidity).		
	k. **Water quality data** for the type of community.		
	l. **Water depth, wave energy, and currents**.		
Current 7 / **With Impact 0**	Notes: Historic hydrology has been impacted by past development & canal construction.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(c) Community Structure X Vegetation ____ Benthic ____ Both	I. Appropriate/desirable species		
	II. Invasive/exotic plant species	X	
	III. Regeneration/recruitment	X	
	IV. Age, size distribution.		
	V. Snags, dens, cavity, etc.		
	VI. Plants' condition.		
	VII. Land management practices.		
	VIII. Topographic features (refugia, channels, hummocks).		
	IX. Submerged vegetation (only score if present).		
	X. Upland assessment area		
Current 8 / **With Impact 0**	Notes: Native plant species dominant, but Brazilian pepper invading the system.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	
Current	**With Impact**
0.70	0.00

Impact Acres =	0

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.00

Impact Delta (ID)	
Current - w/Impact	0.70

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Ellis Road		**W-13**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
617	**PFO1C**	**Impact**	Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Basin 22, Central Indian River Lagoon	**St. Johns River, Class III**	**N/A**

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Disturbed forested wetland which sheet flows to a ditch that flows westward under I-95 to the St. Johns River. A shallow ditch bisects this wetland. A large canal is located near the eastern edge of this wetland, however no surface connection to this canal was evident.

Assessment area description

Disturbed forested wetland dominated by mesic oaks, red maple and elm with sparse groundcover seedling & sapling canopy species and some swamp fern. Brazilian pepper invading the system adjacent to the ditch.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Wetland bordered on the east by an unpaved trail road, on the west by I-95, on the north by a mobile home park and on the south by disturbed mesic hammock.	**Common**
Functions **Wildlife habitat, water quality enhancement, flood attenuation**	Mitigation for previous permit/other historic use **N/A**
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found) **Wading birds, hawks, owls, songbirds, woodpeckers, raccoon, rabbit, opossum, gray squirrel, water snakes, frogs, water turtles, anoles**	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) **Limited foraging and nesting habitat for listed wading birds**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Northern Cardinal, Blue Jay

Additional relevant factors:

The wetland is a remnant of a much larger system that was filled for development of I-95 and agricultural fields. The past land use practices have impacted the hydrology.

Assessment conducted by:	Assessment date(s):
T. J. Deuerling	**04/28/11**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
Ellis Road	**-**	**W-12**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Impact	**T. J. Deuerling**	**04/28/11**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

		Current	With Impact
.500(6)(a) Location and Landscape Support	a. Quality and quantity **of habitat support** outside of AA.	X	
	b. **Invasive plant species.**		
	c. **Wildlife access** to and from AA (proximity and barriers).	X	
	d. **Downstream benefits** provided to fish and wildlife.		
	e. Adverse impacts to wildlife in AA from **land uses** outside of AA.		
	f. **Hydrologic connectivity** (impediments and flow restrictions).		
	g. **Dependency** of downstream habitats on quantity or quality of discharges.		
	h. Protection of wetland functions provided by uplands (**upland** AAs only).		
Current 6 / **With Impact** 0	Notes: AA located in developed area and bordered by I-95. Vacant land on remaining sides but poor wildlife corridor connection to anywhere except developed properties.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(b) Water Environment (n/a for uplands)	a. Appropriateness of **water levels and flows**.		
	b. Reliability of **water level indicators**.	X	
	c. Appropriateness of **soil moisture**.	X	
	d. **Flow rates**/points of discharge.		
	e. **Fire frequency**/severity.		
	f. **Type of vegetation**.		
	g. **Hydrologic stress** on vegetation.		
	h. **Use by animal**s with hydrologic requirements.		
	i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ).		
	j. **Water quality of standing water by observation** (I.e., discoloration, turbidity).		
	k. **Water quality data** for the type of community.		
	l. **Water depth, wave energy, and currents**.		
Current 8 / **With Impact** 0	Notes: Historic hydrology has been impacted by past development & canal construction.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(c) Community Structure X Vegetation ____ Benthic ____ Both	I. Appropriate/desirable species		
	II. Invasive/exotic plant species	X	
	III. Regeneration/recruitment	X	
	IV. Age, size distribution.		
	V. Snags, dens, cavity, etc.		
	VI. Plants' condition.		
	VII. Land management practices.		
	VIII. Topographic features (refugia, channels, hummocks).		
	IX. Submerged vegetation (only score if present).		
	X. Upland assessment area		
Current 8 / **With Impact** 0	Notes: Native plant species dominant, but Brazilian pepper beginning to invade the system.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	
Current	**With Impact**
0.73	0.00

Impact Acres =	0

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.00

Impact Delta (ID)	
Current - w/Impact	0.73

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Ellis Road		**W-12**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
617	**PFO1C**	**Impact**	Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Basin 22, Central Indian River Lagoon	**St. Johns River, Class III**	**N/A**

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Disturbed forested wetland which sheet flows to a ditch that flows westward under I-95 to the St. Johns River. A large canal is located near the eastern edge of this wetland, however no surface connection to this canal was evident.

Assessment area description

Disturbed forested wetland dominated by mesic oaks, red maple and elm with sparse groundcover seedling & sapling canopy species. Brazilian pepper invading the system.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Wetland bordered on the east by an unpaved trail road, on the west by I-95 and remaining sides by disturbed mesic hammock.	**Common**
Functions	Mitigation for previous permit/other historic use
Wildlife habitat, water quality enhancement, flood attenuation	**N/A**
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Wading birds, hawks, owls, songbirds, woodpeckers, raccoon, rabbit, opossum, gray squirrel, water snakes, frogs, water turtles, anoles	**Limited foraging and nesting habitat for listed wading birds**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Northern Cardinal

Additional relevant factors:

The wetland is a remnant of a much larger system that was filled for development of I-95 and agricultural fields. The past land use practices have impacted the hydrology.

Assessment conducted by:	Assessment date(s):
T. J. Deuerling	**04/28/11**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
Ellis Road	**-**	**W-11**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Impact	**T. J. Deuerling**	**04/28/11**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

		Current	With Impact
.500(6)(a) Location and Landscape Support	a. Quality and quantity **of habitat support** outside of AA.	X	
	b. **Invasive plant species.**		
	c. **Wildlife access** to and from AA (proximity and barriers).	X	
	d. **Downstream benefits** provided to fish and wildlife.		
	e. Adverse impacts to wildlife in AA from **land uses** outside of AA.		
	f. **Hydrologic connectivity** (impediments and flow restrictions).		
	g. **Dependency** of downstream habitats on quantity or quality of discharges.		
	h. Protection of wetland functions provided by uplands (**upland** AAs only).		
Current 6 / **With Impact** 0	Notes: AA located in developed area and bordered by I-95. Vacant land on remaining sides but poor wildlife corridor connection to anywhere except developed properties.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(b) Water Environment (n/a for uplands)	a. Appropriateness of **water levels and flows**.		
	b. Reliability of **water level indicators**.	X	
	c. Appropriateness of **soil moisture**.	X	
	d. **Flow rates**/points of discharge.		
	e. **Fire frequency**/severity.		
	f. **Type of vegetation**.		
	g. **Hydrologic stress** on vegetation.		
	h. **Use by animal**s with hydrologic requirements.		
	i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ).		
	j. **Water quality of standing water by observation** (I.e., discoloration, turbidity).		
	k. **Water quality data** for the type of community.		
	l. **Water depth, wave energy, and currents**.		
Current 8 / **With Impact** 0	Notes: Historic hydrology has been impacted by past development & canal construction.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(c) Community Structure X Vegetation ____ Benthic ____ Both	I. Appropriate/desirable species		
	II. Invasive/exotic plant species	X	
	III. Regeneration/recruitment	X	
	IV. Age, size distribution.		
	V. Snags, dens, cavity, etc.		
	VI. Plants' condition.		
	VII. Land management practices.		
	VIII. Topographic features (refugia, channels, hummocks).		
	IX. Submerged vegetation (only score if present).		
	X. Upland assessment area		
Current 8 / **With Impact** 0	Notes: Native plant species dominant.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	
Current	**With Impact**
0.73	0.00

Impact Acres =	0

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.00

Impact Delta (ID)	
Current - w/Impact	0.73

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Ellis Road		**W-11**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
617	**PFO1C**	**Impact**	Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Basin 22, Central Indian River Lagoon	**St. Johns River, Class III**	**N/A**

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Disturbed forested wetland which sheet flows to a ditch that flows westward under I-95 to the St. Johns River. A large canal is located near the eastern edge of this wetland, however no surface connection to this canal was evident.

Assessment area description

Disturbed forested wetland dominated by mesic oaks, red maple and elm with sparse groundcover seedling & sapling canopy species.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Wetland bordered on the east by an unpaved trail road, on the west by I-95 and remaining sides by disturbed mesic hammock.	**Common**
Functions	Mitigation for previous permit/other historic use
Wildlife habitat, water quality enhancement, flood attenuation	**N/A**
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Wading birds, hawks, owls, songbirds, woodpeckers, raccoon, rabbit, opossum, gray squirrel, water snakes, frogs, water turtles, anoles	**Limited foraging and nesting habitat for listed wading birds**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Gray Squirrel, Northern Cardinal

Additional relevant factors:

The wetland is a remnant of a much larger system that was filled for development of I-95 and agricultural fields. The past land use practices have impacted the hydrology.

Assessment conducted by:	Assessment date(s):
T. J. Deuerling	**04/28/11**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
Ellis Road	**-**	**W-10**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Impact	**T. J. Deuerling**	**04/28/11**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

		Current	With Impact
.500(6)(a) Location and Landscape Support	a. Quality and quantity **of habitat support** outside of AA.	X	
	b. **Invasive plant species.**		
	c. **Wildlife access** to and from AA (proximity and barriers).	X	
	d. **Downstream benefits** provided to fish and wildlife.		
	e. Adverse impacts to wildlife in AA from **land uses** outside of AA.		
	f. **Hydrologic connectivity** (impediments and flow restrictions).		
	g. **Dependency** of downstream habitats on quantity or quality of discharges.		
	h. Protection of wetland functions provided by uplands (**upland** AAs only).		
Current 6 / **With Impact** 0	Notes: AA located in developed area and bordered by I-95. Vacant land on remaining sides but poor wildlife corridor connection to anywhere except developed properties.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(b) Water Environment (n/a for uplands)	a. Appropriateness of **water levels and flows**.		
	b. Reliability of **water level indicators**.	X	
	c. Appropriateness of **soil moisture**.	X	
	d. **Flow rates**/points of discharge.		
	e. **Fire frequency**/severity.		
	f. **Type of vegetation**.		
	g. **Hydrologic stress** on vegetation.		
	h. **Use by animal**s with hydrologic requirements.		
	i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ).		
	j. **Water quality of standing water by observation** (I.e., discoloration, turbidity).		
	k. **Water quality data** for the type of community.		
	l. **Water depth, wave energy, and currents**.		
Current 8 / **With Impact** 0	Notes: Historic hydrology has been impacted by past development & canal construction.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(c) Community Structure X Vegetation ____ Benthic ____ Both	I. Appropriate/desirable species		
	II. Invasive/exotic plant species	X	
	III. Regeneration/recruitment	X	
	IV. Age, size distribution.		
	V. Snags, dens, cavity, etc.		
	VI. Plants' condition.		
	VII. Land management practices.		
	VIII. Topographic features (refugia, channels, hummocks).		
	IX. Submerged vegetation (only score if present).		
	X. Upland assessment area		
Current 8 / **With Impact** 0	Notes: Native plant species dominant.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	
Current	**With Impact**
0.73	0.00

Impact Acres =	0

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.00

Impact Delta (ID)	
Current - w/Impact	0.73

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Ellis Road		**W-10**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
617	**PFO1C**	**Impact**	Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Basin 22, Central Indian River Lagoon	**St. Johns River, Class III**	**N/A**

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Disturbed forested wetland which sheet flows to a ditch that flows westward under I-95 to the St. Johns River. A large canal is located near the eastern edge of this wetland, however no surface connection to this canal was evident.

Assessment area description

Disturbed forested wetland dominated by mesic oaks, red maple and elm with sparse groundcover seedling & sapling canopy species and swamp dogwood.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Wetland bordered on the east by an unpaved trail road and on the remaining sides by disturbed mesic hammock; however I-95 a short distance to the west.	**Common**
Functions **Wildlife habitat, water quality enhancement, flood attenuation**	Mitigation for previous permit/other historic use **N/A**
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found) **Wading birds, hawks, owls, songbirds, woodpeckers, raccoon, rabbit, opossum, gray squirrel, water snakes, frogs, water turtles, anoles**	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) **Limited foraging and nesting habitat for listed wading birds**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Additional relevant factors:

The wetland is a remnant of a much larger system that was filled for development of I-95 and agricultural fields. The past land use practices have impacted the hydrology.

Assessment conducted by:	Assessment date(s):
T. J. Deuerling	**04/28/11**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
Ellis Road	**-**	**W-9**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Impact	**T. J. Deuerling**	**04/28/11**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

		Current	With Impact
.500(6)(a) Location and Landscape Support	a. Quality and quantity **of habitat support** outside of AA.	X	
	b. **Invasive plant species.**		
	c. **Wildlife access** to and from AA (proximity and barriers).	X	
	d. **Downstream benefits** provided to fish and wildlife.		
	e. Adverse impacts to wildlife in AA from **land uses** outside of AA.		
	f. **Hydrologic connectivity** (impediments and flow restrictions).		
	g. **Dependency** of downstream habitats on quantity or quality of discharges.		
	h. Protection of wetland functions provided by uplands (**upland** AAs only).		
Current 6 / **With Impact** 0	Notes: AA located in developed area and bordered by I-95. Vacant land on remaining sides but poor wildlife corridor connection to anywhere except developed properties.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(b) Water Environment (n/a for uplands)	a. Appropriateness of **water levels and flows**.		
	b. Reliability of **water level indicators**.	X	
	c. Appropriateness of **soil moisture**.	X	
	d. **Flow rates**/points of discharge.		
	e. **Fire frequency**/severity.		
	f. **Type of vegetation**.		
	g. **Hydrologic stress** on vegetation.		
	h. **Use by animal**s with hydrologic requirements.		
	i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ).		
	j. **Water quality of standing water by observation** (I.e., discoloration, turbidity).		
	k. **Water quality data** for the type of community.		
	l. **Water depth, wave energy, and currents**.		
Current 8 / **With Impact** 0	Notes: Historic hydrology has been impacted by past development & canal construction.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(c) Community Structure X Vegetation ____ Benthic ____ Both	I. Appropriate/desirable species		
	II. Invasive/exotic plant species	X	
	III. Regeneration/recruitment	X	
	IV. Age, size distribution.		
	V. Snags, dens, cavity, etc.		
	VI. Plants' condition.		
	VII. Land management practices.		
	VIII. Topographic features (refugia, channels, hummocks).		
	IX. Submerged vegetation (only score if present).		
	X. Upland assessment area		
Current 8 / **With Impact** 0	Notes: Native plant species dominant.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	
Current	**With Impact**
0.73	0.00

Impact Acres =	0

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.00

Impact Delta (ID)	
Current - w/Impact	0.73

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Ellis Road		**W-9**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
617	**PFO1C**	**Impact**	Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Basin 22, Central Indian River Lagoon	**St. Johns River, Class III**	**N/A**

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Disturbed forested wetland which sheet flows to a ditch that flows westward under I-95 to the St. Johns River. A large canal is located near the eastern edge of this wetland, however no surface connection to this canal was evident.

Assessment area description

Disturbed forested wetland dominated by mesic oaks, red maple, elm and cabbage palm with sparse groundcover seedling & sapling canopy species and swamp dogwood.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Wetland bordered on the east by an unpaved trail road and on the remaining sides by disturbed mesic hammock; however I-95 a short distance to the west.	**Common**
Functions **Wildlife habitat, water quality enhancement, flood attenuation**	Mitigation for previous permit/other historic use **N/A**
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found) **Wading birds, hawks, owls, songbirds, woodpeckers, raccoon, rabbit, opossum, gray squirrel, water snakes, frogs, water turtles, anoles**	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) **Limited foraging and nesting habitat for listed wading birds**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Blue Jay, Northern Cardinal

Additional relevant factors:

The wetland is a remnant of a much larger system that was filled for development of I-95 and agricultural fields. The past land use practices have impacted the hydrology.

Assessment conducted by:	Assessment date(s):
T. J. Deuerling	**04/28/11**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
Ellis Road	**-**	**W-8**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Impact	**T. J. Deuerling**	**04/28/11**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

		Current	With Impact
.500(6)(a) Location and Landscape Support	a. Quality and quantity **of habitat support** outside of AA.	X	
	b. **Invasive plant species.**		
	c. **Wildlife access** to and from AA (proximity and barriers).	X	
	d. **Downstream benefits** provided to fish and wildlife.		
	e. Adverse impacts to wildlife in AA from **land uses** outside of AA.		
	f. **Hydrologic connectivity** (impediments and flow restrictions).		
	g. **Dependency** of downstream habitats on quantity or quality of discharges.		
	h. Protection of wetland functions provided by uplands (**upland** AAs only).		
Current 6 / **With Impact** 0	Notes: AA located in developed area and bordered by I-95. Vacant land on remaining sides but poor wildlife corridor connection to anywhere except developed properties.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(b) Water Environment (n/a for uplands)	a. Appropriateness of **water levels and flows**.		
	b. Reliability of **water level indicators**.	X	
	c. Appropriateness of **soil moisture**.	X	
	d. **Flow rates**/points of discharge.		
	e. **Fire frequency**/severity.		
	f. **Type of vegetation**.		
	g. **Hydrologic stress** on vegetation.		
	h. **Use by animal**s with hydrologic requirements.		
	i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ).		
	j. **Water quality of standing water by observation** (I.e., discoloration, turbidity).		
	k. **Water quality data** for the type of community.		
	l. **Water depth, wave energy, and currents**.		
Current 8 / **With Impact** 0	Notes: Historic hydrology has been impacted by past development & canal construction.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(c) Community Structure X Vegetation ____ Benthic ____ Both	I. Appropriate/desirable species		
	II. Invasive/exotic plant species	X	
	III. Regeneration/recruitment	X	
	IV. Age, size distribution.		
	V. Snags, dens, cavity, etc.		
	VI. Plants' condition.		
	VII. Land management practices.		
	VIII. Topographic features (refugia, channels, hummocks).		
	IX. Submerged vegetation (only score if present).		
	X. Upland assessment area		
Current 8 / **With Impact** 0	Notes: Native plant species dominant; however Brazilian pepper is invading the edge of the system.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	

Raw Score = Sum of above scores/30 (if uplands, divide by 20)

Current	With Impact
0.73	0.00

Impact Acres =	0

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.00

Impact Delta (ID)	
Current - w/Impact	0.73

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Ellis Road		**W-8**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
617	**PFO1C**	**Impact**	Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Basin 22, Central Indian River Lagoon	**St. Johns River, Class III**	**N/A**

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Disturbed forested wetland which sheet flows to a ditch that flows westward under I-95 to the St. Johns River. A large canal is located near the eastern edge of this wetland, however no surface connection to this canal was evident.

Assessment area description

Disturbed forested wetland dominated by mesic oaks and cabbage palm with sparse groundcover seedling & sapling canopy species. Brazilian pepper is invading the edge of the system.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Wetland bordered on the east by an unpaved trail road and on the remaining sides by disturbed mesic hammock; however I-95 a short distance to the west.	**Common**
Functions	Mitigation for previous permit/other historic use
Wildlife habitat, water quality enhancement, flood attenuation	**N/A**
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Wading birds, hawks, owls, songbirds, woodpeckers, raccoon, rabbit, opossum, gray squirrel, water snakes, frogs, water turtles, anoles	**Limited foraging and nesting habitat for listed wading birds**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Blue Jay, Tufted Titmouse

Additional relevant factors:

The wetland is a remnant of a much larger system that was filled for development of I-95 and agricultural fields. The past land use practices have impacted the hydrology. Brazilian pepper is invading the edge of the system.

Assessment conducted by:	Assessment date(s):
T. J. Deuerling	**04/28/11**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
Ellis Road	**-**	**W-7**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Impact	**T. J. Deuerling**	**04/28/11**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

		Current	With Impact
.500(6)(a) Location and Landscape Support	a. Quality and quantity **of habitat support** outside of AA.	X	
	b. **Invasive plant species.**		
	c. **Wildlife access** to and from AA (proximity and barriers).	X	
	d. **Downstream benefits** provided to fish and wildlife.		
	e. Adverse impacts to wildlife in AA from **land uses** outside of AA.		
	f. **Hydrologic connectivity** (impediments and flow restrictions).		
	g. **Dependency** of downstream habitats on quantity or quality of discharges.		
	h. Protection of wetland functions provided by uplands (**upland** AAs only).		
Current 6 / **With Impact** 0	Notes: AA located in residential area and bordered on half of edge by paved roads. Poor wildlife corridor connection to anywhere except vacant land to south.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(b) Water Environment (n/a for uplands)	a. Appropriateness of **water levels and flows**.		
	b. Reliability of **water level indicators**.	X	
	c. Appropriateness of **soil moisture**.	X	
	d. **Flow rates**/points of discharge.		
	e. **Fire frequency**/severity.		
	f. **Type of vegetation**.		
	g. **Hydrologic stress** on vegetation.		
	h. **Use by animal**s with hydrologic requirements.		
	i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ).		
	j. **Water quality of standing water by observation** (I.e., discoloration, turbidity).		
	k. **Water quality data** for the type of community.		
	l. **Water depth, wave energy, and currents**.		
Current 8 / **With Impact** 0	Notes: Historic hydrology has been impacted by past development & canal construction.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(c) Community Structure X Vegetation ____ Benthic ____ Both	I. Appropriate/desirable species		
	II. Invasive/exotic plant species	X	
	III. Regeneration/recruitment	X	
	IV. Age, size distribution.		
	V. Snags, dens, cavity, etc.		
	VI. Plants' condition.		
	VII. Land management practices.		
	VIII. Topographic features (refugia, channels, hummocks).		
	IX. Submerged vegetation (only score if present).		
	X. Upland assessment area		
Current 8 / **With Impact** 0	Notes: Native plant species dominant; however Brazilian pepper is invading the system.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	

Raw Score = Sum of above scores/30 (if uplands, divide by 20)

Current	With Impact
0.73	0.00

Impact Acres =	0

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.00

Impact Delta (ID)	
Current - w/Impact	0.73

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Ellis Road		**W-7**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
617	**PFO1C**	**Impact**	Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Basin 22, Central Indian River Lagoon	**St. Johns River, Class III**	**N/A**

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Disturbed forested wetland which sheet flows to a ditch that flows westward under I-95 to the St. Johns River. A large canal is located near the eastern edge of this wetland, however no surface connection to this canal was evident.

Assessment area description

Disturbed forested wetland dominated by mesic oaks, elm, cabbage palm and red maple with sparse groundcover seedling & sapling canopy species. Brazilian pepper is invading the system.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Wetland bordered on the west by I-95, on the east by an unpaved trail road and on the remaining sides disturbed mesic hardwood hammock.	**Common**
Functions **Wildlife habitat, water quality enhancement, flood attenuation**	Mitigation for previous permit/other historic use **N/A**
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found) **Wading birds, hawks, owls, songbirds, woodpeckers, raccoon, rabbit, opossum, gray squirrel, water snakes, frogs, water turtles, anoles**	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) **Limited foraging and nesting habitat for listed wading birds**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Blue Jay, Northern Cardinal

Additional relevant factors:

The wetland is a remnant of a much larger system that was filled for development of I-95 and agricultural fields. The past land use practices have impacted the hydrology. Brazilian pepper is invading the system.

Assessment conducted by:	Assessment date(s):
T. J. Deuerling	**04/28/11**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
Ellis Road	**-**	**W-6**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Impact	**T. J. Deuerling**	**04/28/11**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

		Current	With Impact
.500(6)(a) Location and Landscape Support	a. Quality and quantity **of habitat support** outside of AA.	X	
	b. **Invasive plant species.**		
	c. **Wildlife access** to and from AA (proximity and barriers).	X	
	d. **Downstream benefits** provided to fish and wildlife.		
	e. Adverse impacts to wildlife in AA from **land uses** outside of AA.		
	f. **Hydrologic connectivity** (impediments and flow restrictions).		
	g. **Dependency** of downstream habitats on quantity or quality of discharges.		
	h. Protection of wetland functions provided by uplands (**upland** AAs only).		
Current 9 / **With Impact 0**	Notes: Good wildlife corridor connection to the St. Johns River to the west. Wetland within a maintained powerline easement. I-95 a short distance to the east. Vehicular access roads on east border of wetland.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(b) Water Environment (n/a for uplands)	a. Appropriateness of **water levels and flows**.		
	b. Reliability of **water level indicators**.	X	
	c. Appropriateness of **soil moisture**.	X	
	d. **Flow rates**/points of discharge.		
	e. **Fire frequency**/severity.		
	f. **Type of vegetation**.		
	g. **Hydrologic stress** on vegetation.		
	h. **Use by animal**s with hydrologic requirements.		
	i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ).		
	j. **Water quality of standing water by observation** (I.e., discoloration, turbidity).		
	k. **Water quality data** for the type of community.		
	l. **Water depth, wave energy, and currents**.		
Current 8 / **With Impact 0**	Notes: Historic hydrology has been impacted by past ditch construction, agricutural development and powerline construction.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(c) Community Structure X Vegetation ____ Benthic ____ Both	I. Appropriate/desirable species		
	II. Invasive/exotic plant species	X	
	III. Regeneration/recruitment	X	
	IV. Age, size distribution.		
	V. Snags, dens, cavity, etc.		
	VI. Plants' condition.		
	VII. Land management practices.		
	VIII. Topographic features (refugia, channels, hummocks).		
	IX. Submerged vegetation (only score if present).		
	X. Upland assessment area		
Current 8 / **With Impact 0**	Notes: Native plant species dominant. Some torpedo grass invading the system. Maintained as powerline easement.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	
Current	**With Impact**
0.83	0.00

Impact Acres =	0

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.00

Impact Delta (ID)	
Current - w/Impact	0.83

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Ellis Road		**W-6**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
643	**PEM1C**	**Impact**	Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Basin 22, Central Indian River Lagoon	**St. Johns River, Class III**	**N/A**

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

This wetland sheets flows to ditches which ultimately drain westward to the St. Johns River.

Assessment area description

Wetland is a highly disturbed, seasonally inundated wet prairie located within an existing maintained powerline easement. It is currently colonized with a mix of maidencane, pickerelweed, blue maidencane, camphorweed and other wetland grasses and forbs.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
W-6 is bordered on the east by I-95, on the north and south by the maintained powerline easement and on the west by vacant land.	**Common**

Functions	Mitigation for previous permit/other historic use
Wildlife habitat, water quality enhancement, flood attenuation	**N/A**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Wading birds, hawks, owls, songbirds, raccoon, rabbit, opossum, water snakes, frogs, water turtles, anoles	**Limited foraging and nesting habitat for listed wading birds**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

raccoon track, deer track

Additional relevant factors:

The wetland is part of the St. Johns River floodplain that was previously converted to agricultural fields. It is currently regenerating with a mixture of wetland species, but is withuin the maintained powerline easement. The adjacent land to the west is protected by a conservation easement.

Assessment conducted by:	Assessment date(s):
T. J. Deuerling	**04/28/11**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
Ellis Road	**-**	**W-5**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Impact	**T. J. Deuerling**	**04/28/11**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

		Current	With Impact
.500(6)(a) Location and Landscape Support	a. Quality and quantity **of habitat support** outside of AA.	X	
	b. **Invasive plant species.**		
	c. **Wildlife access** to and from AA (proximity and barriers).	X	
	d. **Downstream benefits** provided to fish and wildlife.		
	e. Adverse impacts to wildlife in AA from **land uses** outside of AA.		
	f. **Hydrologic connectivity** (impediments and flow restrictions).		
	g. **Dependency** of downstream habitats on quantity or quality of discharges.		
	h. Protection of wetland functions provided by uplands (**upland** AAs only).		
Current 9 / **With Impact** 0	Notes: Good wildlife corridor connection to the St. Johns River to the west. I-95 borders wetland on the east.The adjacent land to the north is protected by a conservation easement.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(b) Water Environment (n/a for uplands)	a. Appropriateness of **water levels and flows**.		
	b. Reliability of **water level indicators**.	X	
	c. Appropriateness of **soil moisture**.	X	
	d. **Flow rates**/points of discharge.		
	e. **Fire frequency**/severity.		
	f. **Type of vegetation**.		
	g. **Hydrologic stress** on vegetation.		
	h. **Use by animal**s with hydrologic requirements.		
	i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ).		
	j. **Water quality of standing water by observation** (I.e., discoloration, turbidity).		
	k. **Water quality data** for the type of community.		
	l. **Water depth, wave energy, and currents**.		
Current 8 / **With Impact** 0	Notes: Historic hydrology has been impacted by past ditch construction and agricutural development.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(c) Community Structure X Vegetation ____ Benthic ____ Both	I. Appropriate/desirable species		
	II. Invasive/exotic plant species	X	
	III. Regeneration/recruitment	X	
	IV. Age, size distribution.		
	V. Snags, dens, cavity, etc.		
	VI. Plants' condition.		
	VII. Land management practices.		
	VIII. Topographic features (refugia, channels, hummocks).		
	IX. Submerged vegetation (only score if present).		
	X. Upland assessment area		
Current 9 / **With Impact** 0	Notes: Native plant species dominant; however wax myrtle appears to be invading.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	
Current	**With Impact**
0.87	0.00

Impact Acres =	0

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.00

Impact Delta (ID)	
Current - w/Impact	0.87

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Ellis Road		**W-5**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
643	**PEM1C**	**Impact**	Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Basin 22, Central Indian River Lagoon	**St. Johns River, Class III**	**N/A**

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Historic agricultural fields currently revegetating with a mix of wetland shrubs and grasses which are located within the St. Johns River floodplain.

Assessment area description

Historic agricultural fields currently dominated by wax myrtle, blue maidencane, sand cordgrass and camphorweed with scattered cabbage palm.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Wetland bordered on the east by powerline easement & I-95, on the north by a large drainage ditch, on the south by a stormwater treatment pond and on the west by undeveloped land.	**Common**
Functions	Mitigation for previous permit/other historic use
Wildlife habitat, water quality enhancement, flood attenuation	**N/A**
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Wading birds, hawks, owls, songbirds, raccoon, rabbit, opossum, water snakes, frogs, water turtles, anoles	**Limited foraging and nesting habitat for listed wading birds**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Cardinal, raccoon track, deer track

Additional relevant factors:

The wetland is part of the St. Johns River floodplain that was previously converted to agricultural fields. It is currently regenerating with wax myrtle and blue maindencane. The adjacent land to the north is protected by a conservation easement.

Assessment conducted by:	Assessment date(s):
T. J. Deuerling	**04/28/11**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
Ellis Road	**-**	**W-4**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Impact	**T. J. Deuerling**	**04/28/11**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

		Current	With Impact
.500(6)(a) Location and Landscape Support	a. Quality and quantity **of habitat support** outside of AA.	X	
	b. **Invasive plant species.**		
	c. **Wildlife access** to and from AA (proximity and barriers).	X	
	d. **Downstream benefits** provided to fish and wildlife.		
	e. Adverse impacts to wildlife in AA from **land uses** outside of AA.		
	f. **Hydrologic connectivity** (impediments and flow restrictions).		
	g. **Dependency** of downstream habitats on quantity or quality of discharges.		
	h. Protection of wetland functions provided by uplands (**upland** AAs only).		
Current 9 / **With Impact 0**	Notes: Good wildlife corridor connection to the St. Johns River to the west. I-95 and powerline easement borders wetland on the east. Vehicular access roads on three sides of wetland.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(b) Water Environment (n/a for uplands)	a. Appropriateness of **water levels and flows**.		
	b. Reliability of **water level indicators**.	X	
	c. Appropriateness of **soil moisture**.	X	
	d. **Flow rates**/points of discharge.		
	e. **Fire frequency**/severity.		
	f. **Type of vegetation**.		
	g. **Hydrologic stress** on vegetation.		
	h. **Use by animal**s with hydrologic requirements.		
	i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ).		
	j. **Water quality of standing water by observation** (I.e., discoloration, turbidity).		
	k. **Water quality data** for the type of community.		
	l. **Water depth, wave energy, and currents**.		
Current 8 / **With Impact 0**	Notes: Historic hydrology has been impacted by past ditch construction, agricutural development and powerline construction.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(c) Community Structure X Vegetation ____ Benthic ____ Both	I. Appropriate/desirable species		
	II. Invasive/exotic plant species	X	
	III. Regeneration/recruitment	X	
	IV. Age, size distribution.		
	V. Snags, dens, cavity, etc.		
	VI. Plants' condition.		
	VII. Land management practices.		
	VIII. Topographic features (refugia, channels, hummocks).		
	IX. Submerged vegetation (only score if present).		
	X. Upland assessment area		
Current 8 / **With Impact 0**	Notes: Native plant species dominant. Some torpedo grass invading the system. Maintained as powerline easement.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	

Raw Score = Sum of above scores/30 (if uplands, divide by 20)

Current	With Impact
0.83	0.00

Impact Acres =	0

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.00

Impact Delta (ID)	
Current - w/Impact	0.83

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Ellis Road		**W-4**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
643	**PEM1C**	**Impact**	Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Basin 22, Central Indian River Lagoon	**St. Johns River, Class III**	**N/A**

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Disturbed area between an existing stormwater pond and an elevated powerline easement trail road. It is currently revegetating with a mix of wetland species Located within the St. Johns River floodplain.

Assessment area description

Previously scaped area colonized by maidencane, pickerelweed, blue maidencane, willow and mallow.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Wetland bordered on the east by powerline easement & I-95, on the south by an elevated trail road, on the north by a drainage ditch and on the west by a stormwater treatment pond.	**Common**
Functions **Wildlife habitat, water quality enhancement, flood attenuation**	Mitigation for previous permit/other historic use **N/A**
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found) **Wading birds, hawks, owls, songbirds, raccoon, rabbit, opossum, water snakes, frogs, water turtles, anoles**	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) **Limited foraging and nesting habitat for listed wading birds**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

raccoon track, deer track, Turkey

Additional relevant factors:

The wetland is part of the St. Johns River floodplain that was previously converted to agricultural fields. It is currently regenerating with a mixture of wetland species. The adjacent land to the north is protected by a conservation easement.

Assessment conducted by:	Assessment date(s):
T. J. Deuerling	**04/28/11**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
Ellis Road	**-**	**W-3**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Impact	**T. J. Deuerling**	**04/28/11**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

		Current	With Impact
.500(6)(a) Location and Landscape Support	a. Quality and quantity **of habitat support** outside of AA.	X	
	b. **Invasive plant species.**		
	c. **Wildlife access** to and from AA (proximity and barriers).	X	
	d. **Downstream benefits** provided to fish and wildlife.		
	e. Adverse impacts to wildlife in AA from **land uses** outside of AA.		
	f. **Hydrologic connectivity** (impediments and flow restrictions).		
	g. **Dependency** of downstream habitats on quantity or quality of discharges.		
	h. Protection of wetland functions provided by uplands (**upland** AAs only).		
Current 9 / **With Impact** 0	Notes: Good wildlife corridor connection to the St. Johns River to the west. I-95 borders wetland on the east.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(b) Water Environment (n/a for uplands)	a. Appropriateness of **water levels and flows**.		
	b. Reliability of **water level indicators**.	X	
	c. Appropriateness of **soil moisture**.	X	
	d. **Flow rates**/points of discharge.		
	e. **Fire frequency**/severity.		
	f. **Type of vegetation**.		
	g. **Hydrologic stress** on vegetation.		
	h. **Use by animal**s with hydrologic requirements.		
	i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ).		
	j. **Water quality of standing water by observation** (I.e., discoloration, turbidity).		
	k. **Water quality data** for the type of community.		
	l. **Water depth, wave energy, and currents**.		
Current 8 / **With Impact** 0	Notes: Historic hydrology has been impacted by past ditch construction and agricutural development.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(c) Community Structure X Vegetation ____ Benthic ____ Both	I. Appropriate/desirable species		
	II. Invasive/exotic plant species	X	
	III. Regeneration/recruitment	X	
	IV. Age, size distribution.		
	V. Snags, dens, cavity, etc.		
	VI. Plants' condition.		
	VII. Land management practices.		
	VIII. Topographic features (refugia, channels, hummocks).		
	IX. Submerged vegetation (only score if present).		
	X. Upland assessment area		
Current 9 / **With Impact** 0	Notes: Native plant species dominant; however wax myrtle appears to be invading.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	
Current	**With Impact**
0.87	0.00

Impact Acres =	0

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.00

Impact Delta (ID)	
Current - w/Impact	0.87

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Ellis Road		**W-3**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
643	**PEM1C**	**Impact**	Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Basin 22, Central Indian River Lagoon	**St. Johns River, Class III**	**N/A**

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Historic agricultural fields currently revegetating with a mix of wetland shrubs and grasses which are located within the St. Johns River floodplain.

Assessment area description

Historic agricultural fields currently dominated by wax myrtle and blue maidencane with scattered cabbage palm.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Wetland bordered on the east and south by cabbage palm hammock, on the north by a stormwater pond and on the west by undeveloped land.	**Common**
Functions	Mitigation for previous permit/other historic use
Wildlife habitat, water quality enhancement, flood attenuation	**N/A**
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Wading birds, hawks, owls, songbirds, raccoon, rabbit, opossum, water snakes, frogs, water turtles, anoles	**Limited foraging and nesting habitat for listed wading birds**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Cardinal, raccoon track, vulture

Additional relevant factors:

The wetland is part of the St. Johns River floodplain that was previously converted to agricultural fields. It is currently regenerating with wax myrtle and blue maindencane.

Assessment conducted by:	Assessment date(s):
T. J. Deuerling	**04/28/11**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
Ellis Road	**-**	**W-2**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Impact	**T. J. Deuerling**	**04/28/11**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

		Current	With Impact
.500(6)(a) Location and Landscape Support	a. Quality and quantity **of habitat support** outside of AA.	X	
	b. **Invasive plant species.**		
	c. **Wildlife access** to and from AA (proximity and barriers).	X	
	d. **Downstream benefits** provided to fish and wildlife.		
	e. Adverse impacts to wildlife in AA from **land uses** outside of AA.		
	f. **Hydrologic connectivity** (impediments and flow restrictions).		
	g. **Dependency** of downstream habitats on quantity or quality of discharges.		
	h. Protection of wetland functions provided by uplands (**upland** AAs only).		
Current 9 / **With Impact 0**	Notes: Good wildlife corridor connection to the St. Johns River to the west. I-95 and powerlines border wetland on the east.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(b) Water Environment (n/a for uplands)	a. Appropriateness of **water levels and flows**.		
	b. Reliability of **water level indicators**.	X	
	c. Appropriateness of **soil moisture**.	X	
	d. **Flow rates**/points of discharge.		
	e. **Fire frequency**/severity.		
	f. **Type of vegetation**.		
	g. **Hydrologic stress** on vegetation.		
	h. **Use by animal**s with hydrologic requirements.		
	i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ).		
	j. **Water quality of standing water by observation** (I.e., discoloration, turbidity).		
	k. **Water quality data** for the type of community.		
	l. **Water depth, wave energy, and currents**.		
Current 8 / **With Impact 0**	Notes: Historic hydrology has been impacted by past ditch and road construction as well as agricutural development.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(c) Community Structure X Vegetation ____ Benthic ____ Both	I. Appropriate/desirable species		
	II. Invasive/exotic plant species	X	
	III. Regeneration/recruitment	X	
	IV. Age, size distribution.		
	V. Snags, dens, cavity, etc.		
	VI. Plants' condition.		
	VII. Land management practices.		
	VIII. Topographic features (refugia, channels, hummocks).		
	IX. Submerged vegetation (only score if present).		
	X. Upland assessment area		
Current 9 / **With Impact 0**	Notes: Native plant species dominant.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	
Current	**With Impact**
0.87	0.00

Impact Acres =	0

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.00

Impact Delta (ID)	
Current - w/Impact	0.87

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Ellis Road		**W-2**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
643	**PEM1C**	**Impact**	Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Basin 22, Central Indian River Lagoon	**St. Johns River, Class III**	**N/A**

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Historic agricultural fields currently revegetating with a mix of wetland shrubs and grasses which are located within the St. Johns River floodplain.

Assessment area description

Wetland-dominated depression within a cabbage palm hammock.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Wetland bordered on the east by a trail road and on the remaining sides by cabbage palm hammock.	**Common**

Functions	Mitigation for previous permit/other historic use
Wildlife habitat, water quality enhancement, flood attenuation	**N/A**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Wading birds, hawks, owls, songbirds, raccoon, rabbit, opossum, water snakes, frogs, water turtles, anoles	**Limited foraging and nesting habitat for listed wading birds**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Additional relevant factors:

The wetland is part of the St. Johns River floodplain that was previously converted to agricultural fields.

Assessment conducted by:	Assessment date(s):
T. J. Deuerling	**04/28/11**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
Ellis Road	**-**	**W-1**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Impact	**T. J. Deuerling**	**04/28/11**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

		Current	With Impact
.500(6)(a) Location and Landscape Support	a. Quality and quantity **of habitat support** outside of AA.	X	
	b. **Invasive plant species.**		
	c. **Wildlife access** to and from AA (proximity and barriers).	X	
	d. **Downstream benefits** provided to fish and wildlife.		
	e. Adverse impacts to wildlife in AA from **land uses** outside of AA.		
	f. **Hydrologic connectivity** (impediments and flow restrictions).		
	g. **Dependency** of downstream habitats on quantity or quality of discharges.		
	h. Protection of wetland functions provided by uplands (**upland** AAs only).		
Current 9 / **With Impact** 0	Notes: Good wildlife corridor connection to the St. Johns River to the west. I-95 and powerline easement border wetland on the east.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(b) Water Environment (n/a for uplands)	a. Appropriateness of **water levels and flows**.		
	b. Reliability of **water level indicators**.	X	
	c. Appropriateness of **soil moisture**.	X	
	d. **Flow rates**/points of discharge.		
	e. **Fire frequency**/severity.		
	f. **Type of vegetation**.		
	g. **Hydrologic stress** on vegetation.		
	h. **Use by animal**s with hydrologic requirements.		
	i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ).		
	j. **Water quality of standing water by observation** (I.e., discoloration, turbidity).		
	k. **Water quality data** for the type of community.		
	l. **Water depth, wave energy, and currents**.		
Current 8 / **With Impact** 0	Notes: Historic hydrology has been impacted by past ditch construction and agricutural development.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	
.500(6)(c) Community Structure X Vegetation ____ Benthic ____ Both	I. Appropriate/desirable species		
	II. Invasive/exotic plant species	X	
	III. Regeneration/recruitment	X	
	IV. Age, size distribution.		
	V. Snags, dens, cavity, etc.		
	VI. Plants' condition.		
	VII. Land management practices.		
	VIII. Topographic features (refugia, channels, hummocks).		
	IX. Submerged vegetation (only score if present).		
	X. Upland assessment area		
Current 9 / **With Impact** 0	Notes: Native plant species dominant; however willow distribution out of proportion.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	
Current	**With Impact**
0.87	0.00

Impact Acres =	0

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.00

Impact Delta (ID)	
Current - w/Impact	0.87

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Ellis Road		**W-1**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
618	**PSS1C**	**Impact**	Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Basin 22, Central Indian River Lagoon	**St. Johns River, Class III**	**N/A**

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Historic agricultural fields currently revegetating with a mix of wetland shrubs with open water areas and some emergent wetland species. W-1 is located within the St. Johns River floodplain. Sheet flow to the west to the St. Johns River.

Assessment area description

A seasonally inundated, coastalplain willow-dominated wetland that extends off-site to the west. Open water areas are present as well as sections dominated by spatterdock or pickerelweed .

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Wetland is bordered on the east by a powerline easement, on the north and west by cabbage palm hammock and on the south by a cleared and filled vacant land with several ponds.	**Common**
Functions **Wildlife habitat, water quality enhancement, flood attenuation**	Mitigation for previous permit/other historic use **N/A**
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found) **Wading birds, hawks, owls, songbirds, raccoon, rabbit, opossum, water snakes, frogs, water turtles, anoles**	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) **Limited foraging and nesting habitat for listed wading birds**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Cardinal, raccoon track

Additional relevant factors:

The wetland is part of the St. Johns River floodplain that was previously converted to agricultural fields. It is currently regenerating with willow and wax myrtle.

Assessment conducted by:	Assessment date(s):
T. J. Deuerling	**04/28/11**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
Ellis Road	**-**	**W-20**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Impact	**T. J. Deuerling**	**04/28/11**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

		Current	With Impact
.500(6)(a) Location and Landscape Support	a. Quality and quantity **of habitat support** outside of AA.		
	b. **Invasive plant species.**	X	
	c. **Wildlife access** to and from AA (proximity and barriers).		
	d. **Downstream benefits** provided to fish and wildlife.		
	e. Adverse impacts to wildlife in AA from **land uses** outside of AA.	X	
	f. **Hydrologic connectivity** (impediments and flow restrictions).		
	g. **Dependency** of downstream habitats on quantity or quality of discharges.		
	h. Protection of wetland functions provided by uplands (**upland** AAs only).		
Current 3 / **With Impact** 0	Notes: Wetland is located in urban setting. Little cover on adjacent uplands. Poor wildlife corridor opportunity. The wetland & adjacent uplands are contained within a chainlink fence.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	

.500(6)(b) Water Environment (n/a for uplands)	a. Appropriateness of **water levels and flows**.		
	b. Reliability of **water level indicators**.	X	
	c. Appropriateness of **soil moisture**.	X	
	d. **Flow rates**/points of discharge.		
	e. **Fire frequency**/severity.		
	f. **Type of vegetation**.		
	g. **Hydrologic stress** on vegetation.		
	h. **Use by animal**s with hydrologic requirements.		
	i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ).		
	j. **Water quality of standing water by observation** (I.e., discoloration, turbidity).		
	k. **Water quality data** for the type of community.		
	l. **Water depth, wave energy, and currents**.		
Current 7 / **With Impact** 0	Notes: Historic hydrology has been impacted by past ditching and development.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	

.500(6)(c) Community Structure	I. Appropriate/desirable species		
	II. Invasive/exotic plant species	X	
	III. Regeneration/recruitment	X	
X Vegetation	IV. Age, size distribution.		
	V. Snags, dens, cavity, etc.		
_____ Benthic	VI. Plants' condition.		
	VII. Land management practices.		
_____ Both	VIII. Topographic features (refugia, channels, hummocks).		
	IX. Submerged vegetation (only score if present).		
	X. Upland assessment area		
Current 7 / **With Impact** 0	Notes: Native plant species dominant; however approaching nuisance propotions. Adjacent uplands maintained by mowing.	Place an "X" in the box above next to the two (2) most important criteria used in scoring this section	

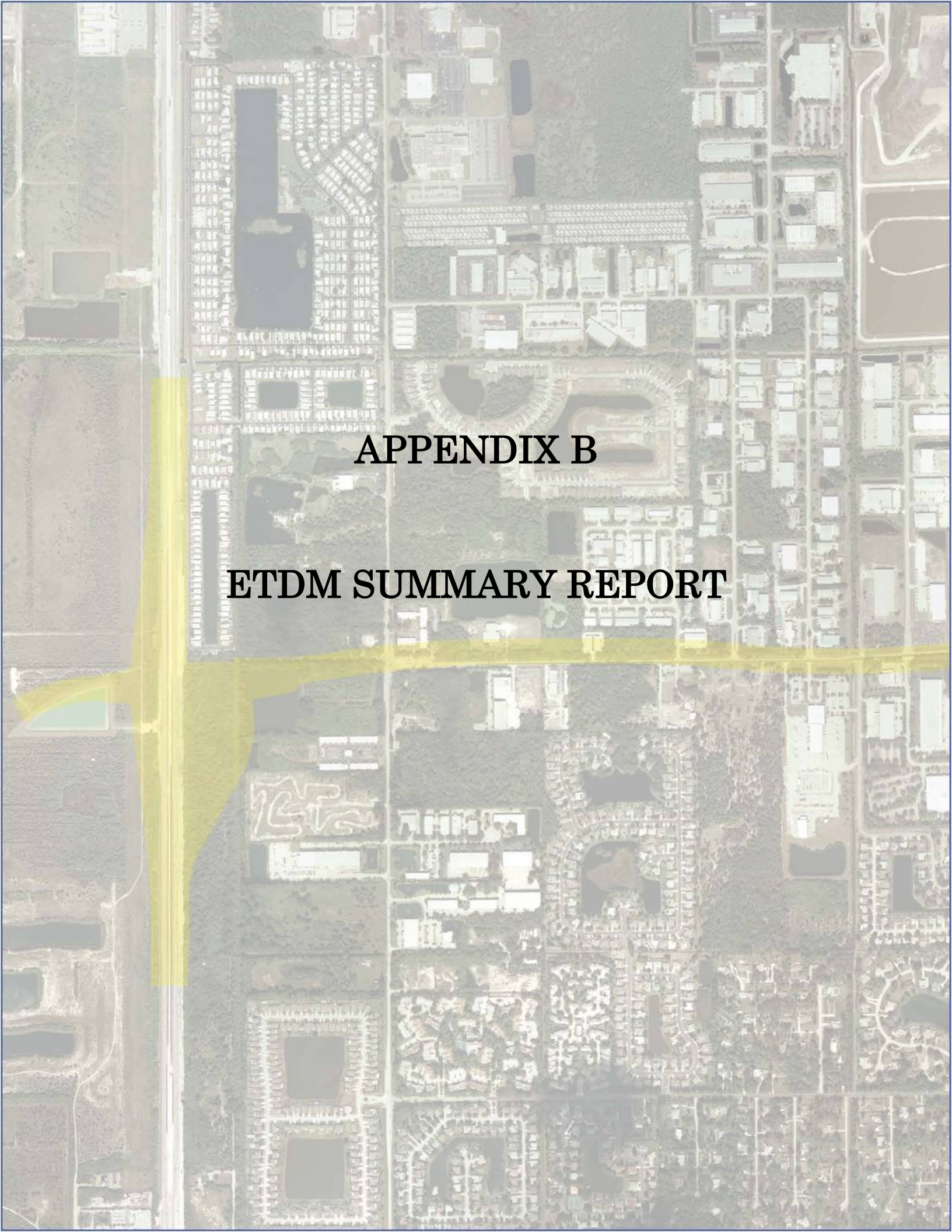
Raw Score = Sum of above scores/30 (if uplands, divide by 20)	
Current	**With Impact**
0.57	0.00

Impact Acres =	0

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.00

Impact Delta (ID)	
Current - w/Impact	0.57

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.



APPENDIX B

ETDM SUMMARY REPORT

ETDM Summary Report

Project #11460 - I-95 and Ellis Road Interchange

Programming Screen - Published on 05/06/2010

Printed on: 6/01/2011

Introduction to Programming Screen Summary Report

The Programming Screen Summary Report shown below is a read-only version of information contained in the Programming Screen Summary Report generated by the ETDM Coordinator for the selected project after completion of the ETAT Programming Screen review. The purpose of the Programming Screen Summary Report is to summarize the results of the ETAT Programming Screen review of the project; provide details concerning agency comments about potential effects to natural, cultural, and community resources; and provide additional documentation of activities related to the Programming Phase for the project. Available information for a Programming Screen Summary Report includes:

- Screening Summary Report chart
- Project Description information (including a summary description of the project, a summary of public comments on the project, and community-desired features identified during public involvement activities)
- Purpose and Need information (including the Purpose and Need Statement and the results of agency reviews of the project Purpose and Need)
- Alternative-specific information, consisting of descriptions of each alternative and associated road segments; an overview of ETAT Programming Screen reviews for each alternative; and agency comments concerning potential effects and degree of effect, by issue, to natural, cultural, and community resources.
- Project Scope information, consisting of general project commitments resulting from the ETAT Programming Screen review, permits, and technical studies required (if any)
- Class of Action determined for the project
- Dispute Resolution Activity Log (if any)

The legend for the Degree of Effect chart is provided in an appendix to the report.

For complete documentation of the project record, also see the GIS Analysis Results Report published on the same date as the Programming Screen Summary Report.

Table of Contents

11460 - I-95 and Ellis Road Interchange ** Most Recent Data			
Review Start Date:	12/15/2009	**Phase:**	Programming Screen
From:	MP 22.16	**To:**	,"Location not available."
District:	District 5	**County:**	Brevard County
Contact Name / Phone:	Mary McGehee (386) 943-5063	**Contact Email:**	mary.mcgehee@dot.state.fl.us

Project Re-Published 5/06/2010

Project Overview: Summary Degree of Effect Chart

Legend
- N/A N/A / No Involvement
- 1 Enhanced
- 0 None
- 2 Minimal (after 12/5/2005)
- 3 Moderate
- 4 Substantial
- 5 Dispute Resolution (Programming)

	Evaluation of Direct Effects																					
	Natural											Cultural			Community							
	Air Quality	Coastal and Marine	Contaminated Sites	Farmlands	Floodplains	Infrastructure	Navigation	Special Designations	Water Quality and Quantity	Wetlands	Wildlife and Habitat	Historic and Archaeological Sites	Recreation Areas	Section 4(f) Potential	Aesthetics	Economic	Land Use	Mobility	Relocation	Social	Secondary and Cumulative Effects
Alternative #1 **From - To -** *- Reviewed from 12/15/2009 to 1/29/2010* *- Published on 5/6/2010*	2	2	3	0	3	2	N/A	2	2	2	3	2	0	N/A	2	1	2	1	2	2	2

Project Description Summary

The purpose of this project is to provide a more direct connection between Melbourne International Airport and I-95, and to address projected deficiencies at the existing I-95 interchanges with US 192 and Eau Gallie Boulevard. If this connection is made in the Ellis Road location, Ellis Road will require improvements to accommodate this new connection.

Summary of Public Comments

Community Desired Features

No desired features have been entered into the database. This does not necessarily imply that none have been identified.

Purpose and Need Statement

Future traffic growth related to Melbourne International Airport (MLB) activity and economic development surrounding the airport is forecast to push the exiting Interstate 95 (I-95) interchanges at US 192 and Eau Gallie Boulevard to failing levels of service. An additional access from I-95 is needed to address this capacity deficiency and provide a more direct connection to the Melbourne International Airport. If this connection is made in the Ellis Road location, Ellis Road will require improvements to accommodate this new connection.

I-95 is not only a key national south-north connector but also a corner stone of the Florida Strategic Intermodal System (SIS). It links major activity centers with other modes of transportation like airports, bus hubs, seaports, spaceports, and train stations. While I-95 does not directly connect some of these hubs, access to the interstate is provided via interchanges on SIS connectors. These facilities can be state or local roads. Currently, the emerging SIS hubs at MLB and Melbourne Greyhound Bus Terminal are being connected to the SIS network via the US 192 interchange, US 192 to Airport Boulevard to NASA Boulevard and the airport loop road. The general aviation service is connected via the Eau Gallie Boulevard interchange, Eau Gallie Boulevard to Sarno Road to Apollo Boulevard. Both US 192 and Eau Gallie Boulevard are part of the Florida Hurricane Evacuation network and connect the eastern Florida shore to the mainland. US 192, also known as Space Coast Parkway is the most southern Brevard County causeway over the Indian River and the last for over 25 miles. The closest causeway to the south is in Indian River County near Wabasso.

The dual function performed by US 192 signifies its importance in the local and regional travel patterns. Traffic studies prepared by the FDOT and local authorities show that future traffic volumes on US 192 will exceed the standard level of service (LOS) volumes due to the local reliance on this facility for access to I-95. A new interchange connecting MLB directly to I-95 with associated improvements to Ellis Road would assume the SIS connector role from US 192 and disperse the local access to I-95 between multiple facilities. MLB is an important transportation mode hub but also a major employment area for Melbourne and Palm Bay.

City of Melbourne Comprehensive Plan shows that approximately 56-percent of the industrial designated future land use is vacant. MLB and its surroundings are the central piece of city's industrial area and covers in excess of 3,000 acres representing the economic engine for the south Brevard communities. Currently, over 55,000 jobs are housed within 3 miles of the airport based on a December 2008 Space Coast Economic Development Commission report. MLB is the second largest employment center in Brevard County lagging only behind Kennedy Space Center and is the hub of the largest high tech high skilled industrialized area in east central Florida. MLB's industrial park has the potential to grow over 300% in job attraction in the coming years and has had continuing growth despite the economic downturn in the US over the last two years. A Trip Generation Study conducted by the airport authority in March 2007 shows the potential development of an additional 3,700,000 square feet of office, warehousing, and retail on airport grounds. The ultimate build up of the MLB surroundings would result in approximately 113,700 daily vehicle trips. The additional trips to the existing roadway connectors to I-95 would overwhelm any planned improvements on US 192 or Eau Gallie Boulevard and result in traffic operations below the LOS standards.

Year 2034 annual average daily traffic (AADT) volumes from the FHWA approved Ellis Road Interchange Justification Report (IJR) indicate that US 192 and Eau Gallie Boulevard would operate at LOS F if the additional I-95 interchange is not built. The IJR approved a new interchange at Ellis Road, 1.37 miles north of US 192 and 1.5 miles south of Eau Gallie Boulevard, which requires an exception from the standard Interstate access spacing. Ellis Road needs to be improved from its current local street cross section to a four-lane arterial typical section between I-95 and NASA Boulevard. The improvement in conjunction with the new interchange would attract approximately 24,200 daily trips from

US 192 and Eau Gallie Boulevard. US 192 traffic operations would improve to LOS C. Eau Gallie Boulevard would experience some traffic relief; however, operations would remain in the LOS F range. The IJR traffic operations analysis confirms the February 2006 results of the I-95 System Operational Analysis Report (SOAR) conducted by FDOT for the Palm Bay Parkway/Ellis Road Interchange Feasibility Study. Both the Ellis Road improvements and the associated I-95 interchange project have been included in the regional and local long range plans. Space Coast TPO and Brevard County consider both facilities a priority. Airport surrounding authorities, City of Melbourne, City of West Melbourne, and City of Palm Bay support the addition of a more direct MLB access route and would positively benefit from increased mobility between the residential areas they incorporate and the employment center at MLB.

The pending operational failure of the I-95 and US 192 interchange, the airport's SIS connector, will impede economic growth of the MLB and surrounding aerospace, defense and industrial business facilities. The proposed new interchange at Ellis Road and the improved direct connection to the airport will provide relief to the existing adjacent interchanges by focusing the airport traffic on the proposed new interchange.

Purpose and Need Reviews

Federal Highway Administration Comments

Agency	Acknowledgment	Review Date
Federal Highway Administration	Accepted	1/27/2010

Comments

FHWA accepts the need and purpose for this project. However, the Project Description and purpose and need includes the following statement, "Both the Ellis Road improvements and the associated I-95 interchange project have been included in the regional and local long range plans." Our FHWA planner for the District 5 area has reviewed the current Long Range Transportation Plan and found that this project is not included in the Cost Feasible Plan. Their specific review comment on this was as follows:

"The project information displayed in ETDM lists the current Long Range Plan as the 2020 Long Range Plan. This plan is expired and the current plan is the 2025 Long Range Plan. Within the 2025 Long Range Plan this project is not part of the fiscally constrained plan. The Space Coast TPO is currently working on their 2035 Long Range Plan and the Florida DOT should ensure the inclusion of this project in the fiscally constrained portion of the plan if it is the desire of the DOT to build this project."

If the project is not included in the November update to the LRTP, it is likely that proceeding into PD&E for this project would be an unnecessary expenditure at this time because FHWA would not be able to approve the document. Please correct the statements in the project description and purpose and need as part of the draft summary report to indicate the correct status regarding consistency with the LRTP and to also note when/if it is expected that the LRTP would be amended to include this project as a cost feasible component.

US Coast Guard Comments

Agency	Acknowledgment	Review Date
US Coast Guard	Understood	12/16/2009

Comments

No Purpose and Need Comments Were Found.

US Environmental Protection Agency Comments

Agency	Acknowledgment	Review Date
US Environmental Protection Agency	Understood	1/7/2010

Comments

No Purpose and Need Comments Were Found.

FL Department of Community Affairs Comments

Agency	Acknowledgment	Review Date

FL Department of Community Affairs	Understood	2/10/2010
Comments		
No Purpose and Need Comments Were Found.		

FL Fish and Wildlife Conservation Commission Comments		
Agency	**Acknowledgment**	**Review Date**
FL Fish and Wildlife Conservation Commission	Understood	1/14/2010
Comments		
No Purpose and Need Comments Were Found.		

FL Department of Environmental Protection Comments		
Agency	**Acknowledgment**	**Review Date**
FL Department of Environmental Protection	Understood	1/28/2010
Comments		
No Purpose and Need Comments Were Found.		

Space Coast TPO Comments		
Agency	**Acknowledgment**	**Review Date**
Space Coast TPO	Understood	1/21/2010
Comments		
No Purpose and Need Comments Were Found.		

US Fish and Wildlife Service Comments		
Agency	**Acknowledgment**	**Review Date**
US Fish and Wildlife Service	Understood	12/23/2009
Comments		
No Purpose and Need Comments Were Found.		

National Marine Fisheries Service Comments		
Agency	**Acknowledgment**	**Review Date**
National Marine Fisheries Service	Understood	1/13/2010
Comments		
None.		

Natural Resources Conservation Service Comments		
Agency	**Acknowledgment**	**Review Date**
Natural Resources Conservation Service	Understood	1/8/2010
Comments		
No Purpose and Need Comments Were Found.		

FL Department of State Comments		
Agency	**Acknowledgment**	**Review Date**
FL Department of State	Understood	12/22/2009
Comments		
Please see detailed comments provided in "Describe Direct Effects" section.		

US Army Corps of Engineers Comments		
Agency	**Acknowledgment**	**Review Date**
US Army Corps of Engineers	Understood	12/22/2009
Comments		
No Purpose and Need Comments Were Found.		

Alternative #1

Alternative Description	
From	?
To	?
Type	Traffic Operation Enhancement
Status	Work Program
Total Length	? mi.
Cost	
Modes	Roadway

Location and Length		
	Segment #1	Segment #2
Name	Ellis Road Improvements	New Interchange
Beginning Location		
Ending Location		
Length (mi.)	2.168	0.914
Roadway Id	Digitized	Digitized
BMP	??	??
EMP	??	??
Jurisdiction and Class		
	Segment #1	Segment #2
Jurisdiction	City	FDOT
Urban Service Area	In/Out	In
Functional Class		
Current and Future Conditions		
Base Conditions		
	Segment #1	Segment #2
Year		
AADT	unspecified	unspecified
Lanes		
Config		
Interim Plan		
	Segment #1	Segment #2
Year		
AADT	unspecified	unspecified
Lanes		
Config		
Needs Plan		
	Segment #1	Segment #2
Year		
AADT	unspecified	unspecified
Lanes		
Config		
Cost Feasible Plan		
	Segment #1	Segment #2
Year		
AADT	unspecified	unspecified

Lanes		
Config		

No funding sources found.

Project Effects Overview

Issue	Degree of Effect	Organization	Date Reviewed
Natural			
Air Quality	2 Minimal	US Environmental Protection Agency	1/11/2010
Coastal and Marine	2 Minimal	National Marine Fisheries Service	1/13/2010
Contaminated Sites	3 Moderate	FL Department of Environmental Protection	1/28/2010
Contaminated Sites	2 Minimal	US Environmental Protection Agency	1/28/2010
Farmlands	0 None	Natural Resources Conservation Service	1/08/2010
Floodplains	3 Moderate	US Environmental Protection Agency	1/13/2010
Navigation	0 None	US Army Corps of Engineers	12/22/2009
Navigation	N/A N/A / No Involvement	US Coast Guard	12/16/2009
Special Designations	3 Moderate	Federal Highway Administration	1/27/2010
Special Designations	0 None	US Environmental Protection Agency	1/13/2010
Water Quality and Quantity	2 Minimal	FL Department of Environmental Protection	1/28/2010
Water Quality and Quantity	2 Minimal	US Environmental Protection Agency	1/14/2010
Wetlands	3 Moderate	National Marine Fisheries Service	1/13/2010
Wetlands	2 Minimal	US Environmental Protection Agency	1/11/2010
Wetlands	2 Minimal	US Army Corps of Engineers	12/22/2009
Wetlands	3 Moderate	US Fish and Wildlife Service	1/19/2010
Wetlands	2 Minimal	FL Department of Environmental Protection	1/28/2010
Wildlife and Habitat	3 Moderate	US Fish and Wildlife Service	1/19/2010
Wildlife and Habitat	3 Moderate	FL Fish and Wildlife Conservation Commission	1/14/2010
Cultural			
Historic and Archaeological Sites	3 Moderate	FL Department of State	12/22/2009
Historic and Archaeological Sites	2 Minimal	Miccosukee Tribe of Indians of Florida	1/19/2010
Recreation Areas	0 None	FL Department of Environmental Protection	1/28/2010
Recreation Areas	0 None	US Environmental Protection Agency	1/07/2010

Section 4(f) Potential	N/A N/A / No Involvement	National Park Service	1/15/2010
Community			
Economic	1 Enhanced	Space Coast TPO	1/21/2010
Land Use	2 Minimal	FL Department of Community Affairs	2/10/2010
Land Use	2 Minimal	Space Coast TPO	1/21/2010
Mobility	1 Enhanced	Space Coast TPO	1/21/2010
Mobility	3 Moderate	Federal Highway Administration	1/27/2010
Relocation	0 None	Space Coast TPO	1/21/2010
Social	2 Minimal	US Environmental Protection Agency	1/13/2010
Social	1 Enhanced	Space Coast TPO	1/21/2010
Social	0 None	FL Department of Community Affairs	2/10/2010
Secondary and Cumulative			

ETAT Reviews: Natural

Air Quality

Coordinator Summary

2 Summary Degree of Effect

Air Quality Summary Degree of Effect: Minimal

Reviewed By:
FDOT District 5 (2/17/2010)
Comments:
One agency provided comments in regards to air quality issues and assigned a Minimal degree of effect. We concur with this assessment and are assigning a Minimal summary degree of effect for air quality.

ETAT Reviews for Air Quality

2 ETAT Review by Madolyn Dominy, US Environmental Protection Agency (01/11/2010)

Air Quality Effect: Minimal

Coordination Document: No Selection

Dispute Information:N/A

Identified Resources and Level of Importance:
Resources: Air Quality

Level of Importance: Low, due to minimal degree of effect. A minimal degree of effect is being assigned to the air quality issue for the proposed interchange project (ETDM #11460, I-95 and Ellis Road Interchange).

Comments on Effects to Resources:
Brevard County and the Melbourne area have not been designated non-attainment or maintenance

for ozone, carbon monoxide (CO) or particulate matter (PM) in accordance with the Clean Air Act. There are no violations of National Ambient Air Quality Standards (NAAQS). Nevertheless, it is recommended that the environmental review phase of this project include air impact analyses which documents the current pollutant concentrations recorded at the nearest air quality monitors, an evaluation of anticipated emissions, and air quality trend analyses. It is also recommended that environmental reviews of the project include hot spot analyses at the points in time and places where congestion are expected to be greatest or in areas of sensitive receptors. Air quality modeling using an approved software program should be conducted to determine whether any conformity issues or violations of air quality standards are anticipated within the project area and/or counties. Current and proposed air quality requirements and standards should be used in modeling software programs.

Also, air quality issues relating to the Melbourne International Airport, airport activity, and future traffic growth related to the airport and future economic development surrounding the airport should be considered and evaluated.

Additional Comments (optional):
As population growth and vehicle volumes increase, there is the potential to have air quality conformity and non-attainment issues in the future. FDOT, MPOs, municipalities, and regional planning agencies should conduct air quality modeling as traffic forecasts increase.

FDOT District 5 Feedback to US Environmental Protection Agency's Review
*Comments:*Thank you for your review and comments. An air impact analysis will be conducted during the PD&E phase for this project.
*Date Feedback Submitted:*2/17/2010

- No review submitted from the Federal Highway Administration

Coastal and Marine

Coordinator Summary

2 Summary Degree of Effect

Coastal and Marine Summary Degree of Effect: Minimal

Reviewed By:
FDOT District 5 (2/17/2010)
Comments:
One agency provided comments on Coastal and Marine Issues and assigned a Minimal degree of effect. We are assigning a Minimal degree of effect for this issue.

ETAT Reviews for Coastal and Marine

2 ETAT Review by Brandon Howard, National Marine Fisheries Service (01/13/2010)

Coastal and Marine Effect: Minimal

Coordination Document: No Involvement

Dispute Information:N/A

Identified Resources and Level of Importance:
Based on our review of the information provided on the EST website, GIS-based effects analysis on wetlands, and interpretation of aerial photographs, NOAA's National Marine Fisheries Service (NMFS) determined that emergent wetlands, ponds, and canals are located within the project corridor. These wetlands range from low to moderate in quality.

Comments on Effects to Resources:
The wetlands along the proposed interchange provide water quality functions, such as removal of sediments, excess nutrients, and contaminants, which benefit and support these aquatic ecosystems. Through hydrological connections, these wetlands also contribute plant material and other useable nutrients (both dissolved and particulate organic matter) into aquatic food webs that include recreationally, commercially, or ecologically important species within downstream estuaries. If wetland impacts are unavoidable, sequential minimization and mitigation should take place.

With construction of the new interchange, secondary and indirect impacts should be explored. It appears that no expansion is proposed to the west, but this project could lead to urban sprawl. A discussion addressing this issue should be included in the Wetlands Evaluation Report.

In addition to the direct impacts from filling wetlands, construction activities may impact adjacent wetlands through sedimentation and runoff.

Additional Comments (optional):
Magnuson-Stevens Act: Based on the project location, information provided in the ETDM website, and GIS-based analysis of impacts, NOAA's National Marine Fisheries Service (NMFS) concludes the proposed work would not directly impact areas that support essential fish habitat (EFH) or NOAA trust fishery resources. NMFS has no comments or recommendations to provide pursuant to the EFH requirements of the Magnuson-Stevens Fishery Conservation and Management Act (P.L. 104-297); and this project will not require an EFH Assessment. Further consultation on this matter is not necessary unless future modifications are proposed and you believe that the proposed action may result in adverse impacts to EFH.

Endangered Species Act: We are not aware of any threatened or endangered species or critical habitat under the purview of NMFS that occur within the project area. However, it should be noted that a "no effect" determination must be made by the action agency and the reasoning underlying the determination should be documented in a project file. Please coordinate closely with the U.S. Fish and Wildlife Service for other species listed under the Endangered Species Act that may require consultation.

Fish and Wildlife Coordination Act: The comments NMFS provided regarding sequential mitigation are in accordance with the Fish and Wildlife Coordination Act.

FDOT District 5 Feedback to National Marine Fisheries Service's Review
*Comments:*Thank you for your review and comments. Wetlands within the project area will be identified and delineated during the PD&E phase. The Wetland Evaluation Report will address the functions and values of these wetland areas and potential impacts to these systems. Concept designs developed during the PD&E study will attempt to avoid wetland areas and if not practical will address methods to minimize those impacts. Wetland impacts that are not avoidable will be mitigated in accordance with Section 373.4137 F.S. Thank you for the EFH determination under the Magnuson-Stevens Act. Further coordination with the U.S. Fish and Wildlife Service will take place as the project progresses in order to determine potential effects to listed species.
*Date Feedback Submitted:*2/17/2010

- No review submitted from the Federal Highway Administration

Contaminated Sites

Coordinator Summary

3 Summary Degree of Effect

Contaminated Sites Summary Degree of Effect: Moderate

Reviewed By:
FDOT District 5 (2/17/2010)
Comments:
Two agencies provided comments on this issue with one assigning a Minimal degree of effect and the other a Moderate degree of effect. Due to the presence of sources with the potential to cause contamination we are assigning a Moderate summary degree of effect for this issue.

ETAT Reviews for Contaminated Sites

3 ETAT Review by Lauren P. Milligan, FL Department of Environmental Protection (01/28/2010)

Contaminated Sites Effect: Moderate

Coordination Document: No Selection

Dispute Information:N/A

Identified Resources and Level of Importance:
GIS data indicates that there is a brownfield area, two toxic release inventory sites, and 18 RCRA regulated facilities within the 500-ft. project buffer zone.

Comments on Effects to Resources:
A Contamination Screening Evaluation (similar to Phase I and Phase II Audits) may need to be conducted along the project right-of-way in considering the proximity to potential hazardous waste contamination sites. The Contamination Screening Evaluation should outline specific procedures that would be followed by the applicant in the event drums, wastes, tanks or potentially contaminated soils are encountered during construction. Special attention should be made in the screening evaluation to historical land uses (such as solid waste disposal) that may have an affect on the proposed project, including storm water retention and treatment areas.

-- In the event contamination is detected during construction, DEP and the FDOT may need to address the problem through additional assessment and/or remediation activities. Please note that revisions to Chapters 62-770, 62-782, 62-785, 62-777, F.A.C., and a new rule, Chapter 62-780, F.A.C., all involving contamination assessment and cleanup along with other notification requirements, took effect on April 17, 2005.

-- Groundwater monitoring wells (and possibly water production wells) are likely present at/near the project corridor. Arrangements need to be made to properly abandon (in accordance with Chapter 62-532, F.A.C.) and or replace any wells that may be destroyed or damaged during construction. These wells may also be used to gather data for the Contamination Screening Evaluation report.

-- Depending on the findings of the Contamination Screening Evaluation and the proximity to known contaminated sites, projects involving "dewatering" should be discouraged, since there is a potential

to spread contamination to previously uncontaminated areas and affect contamination receptors, site workers and the public. Dewatering projects would require permits/approval from the St. Johns River Water Management District, Water Use Section and coordination with the County Environmental Management Office.

-- Any land clearing or construction debris must be characterized for proper disposal. Potentially hazardous materials must be properly managed in accordance with Chapter 62-730, F.A.C. In addition, any solid wastes or other non-hazardous debris must be managed in accordance with Chapter 62-701, F.A.C.

-- Staging areas, with controlled access, should be planned in order to safely store raw material paints, adhesives, fuels, solvents, lubricating oils, etc. that will be used during construction. All containers need to be properly labeled. The project managers should consider developing written construction Contingency Plans in the event of a natural disaster, spill, fire or environmental release of hazardous materials stored / handled for the project construction.

FDOT District 5 Feedback to FL Department of Environmental Protection's Review
*Comments:*Thank you for your review and comments. A Contamination Screening Evaluation report will be produce during the study phase. This report will also investigate previous land uses in addition to current uses with the potential to provide contamination. Further audits may be called for depending on the results of the CSE report.
*Date Feedback Submitted:*2/17/2010

2 ETAT Review by Madolyn Dominy, US Environmental Protection Agency (01/28/2010)
Contaminated Sites Effect: Minimal

Coordination Document: No Selection

Dispute Information:N/A

Identified Resources and Level of Importance:
Resources: Soils, groundwater, surface water which have the potential to be negatively affected by contaminated site features such as underground petroleum storage tanks, industrial/commercial facilities with onsite storage of hazardous materials, solid waste facilities, hazardous waste facilities, National Priority List (NPL) sites, etc.

Level of Importance: These resources are of a high level of importance in the State of Florida. However, a minimal degree of effect is being assigned for the proposed project (ETDM #11460, I-95 and Ellis Road Interchange).

Comments on Effects to Resources:
EPA reviewed the following contaminated sites GIS analysis data for buffer distances of 100, 200, and 500 feet: Brownfield Location Boundaries, Geocoded Dry Cleaners, Geocoded Gasoline Stations, Geocoded Petroleum Tanks, Hazardous Waste Sites, National Priority List Sites, Nuclear Site Locations, Solid Waste Facilities, Superfund Hazardous Waste Sites, TANKS-NOV 2007, Toxic Release Inventory Sites, and USEPA RCRA Facilities.

The Melbourne Economic Enhancement District Brownfield Site is listed as being within proximity of the proposed roadway project. Brownfield projects are defined as abandoned, idled or under-utilized property where expansion or redevelopment is complicated by the presence or potential presence of environmental contamination. Previous thriving areas of economic activity are listed as Brownfield if

the area is abandoned by contamination from past uses. Areas being unused or under-utilized are impediments to economic development in rural and urban communities. Redeveloped, these Brownfield areas can be catalysts for community revitalization. The Brownfield program brings together federal agencies to address cleanup and redevelopment in a more coordinated approach. Often times, federal grant programs and public/private organizations assist in the cleanup and redevelopment of Brownfield areas. The environmental review phase of the project should evaluate whether the classification of this area as a Brownfield Site will impact the roadway project.

There are two (2) Toxic Release Inventory sites listed within the 500-foot buffer distance. (ANASTASIA FM, AND SHELLY SEDIMENTS OF PLIO-PLIESTOCENE).

There are fifteen (15) USEPA RCRA regulated facilities listed within the 500-foot buffer distance.

No other contaminated sites features were identified in the online EST GIS analysis data search.

Due to the fact that there are minimal to no contaminated sites features identified to be within the buffer boundaries, impacts to and/or from contaminated site features are expected to be minimal.

The environmental review (PD&E) phase of the project should include a survey of the area to confirm the location of current listed contaminated site features, along with other contaminated site features which may have been previously located in the area. If any contaminated sites features (e.g., petroleum storage tanks) are to be impacted or removed during the construction phase of the project, sampling and analysis should be conducted to determine if pollutants are present above regulatory levels. If high levels of pollutants are identified, remediation may be required prior to commencement of construction of the project.

FDOT District 5 Feedback to US Environmental Protection Agency's Review
*Comments:*Thank you for your review and comments. A Contamination Screening Evaluation report will be produce during the study phase. This report will also investigate previous land uses in addition to current uses with the potential to provide contamination. Further audits may be called for depending on the results of the CSE report.
*Date Feedback Submitted:*2/17/2010

- No review submitted from the Federal Highway Administration

Farmlands

Coordinator Summary

0 Summary Degree of Effect

Farmlands Summary Degree of Effect: None

Reviewed By:
FDOT District 5 (2/17/2010)
Comments:
As the NRCS has determined that there are no Prime and Unique Farmland soils within any of the buffer areas, we are assigning a None degree of effect for this issue.

ETAT Reviews for Farmlands

0 ETAT Review by Rick Allen Robbins, Natural Resources Conservation Service (01/08/2010)

Farmlands Effect: None

Coordination Document: No Selection

Dispute Information:N/A

Identified Resources and Level of Importance:
The USDA-NRCS considers soil map units with important soil properties for agricultural uses to be Prime Farmland. In addition, the USDA-NRCS considers any soils used in the production of commodity crops (such as, cotton, citrus, row crops, specialty crops, nuts, etc.) to possibly be considered as Unique Farmlands. Nationally, there has been a reduction in the overall amount of Prime and Unique Farmlands through conversion to non-farm uses. This trend has the possibility of impacting the nation's food supply and exporting capabilities.

Comments on Effects to Resources:
Conducting GIS analysis of Prime Farmland (using USDA-NRCS data) and Important (Unique) Farmland Analysis (using 2006 SJRWMD data) has resulted in the determination that there are no Prime and Unique Farmland soils within any buffer width within the Project Area. Therefore, no degree of effect to agricultural resources.

Additional Comments (optional):
The Florida USDA-NRCS has evaluated soil map units statewide to determine there applicability to either the Unique Farmland and/or Locally Important Farmland designations. It is possible that some of the map units in this County could be assigned one of these classifications in the future.

FDOT District 5 Feedback to Natural Resources Conservation Service's Review
*Comments:*Thank you for your review, comments and determination of no effect to agricultural resources.
*Date Feedback Submitted:*2/17/2010

- No review submitted from the Federal Highway Administration

Floodplains

Coordinator Summary

3 Summary Degree of Effect

Floodplains Summary Degree of Effect: Moderate

Reviewed By:
FDOT District 5 (2/17/2010)
Comments:
Given the acreage of 100-year floodplains within the project area we are assigning a Moderate degree of effect, as suggested by the U.S. E.P.A.

ETAT Reviews for Floodplains

3 ETAT Review by Madolyn Dominy, US Environmental Protection Agency (01/13/2010)
Floodplains Effect: Moderate

Coordination Document: No Selection

Dispute Information:N/A

Identified Resources and Level of Importance:
Resources: Floodplains

Level of Importance: Development within the 100-year floodplain is of a high level of importance. Construction of roadways within the floodplain should not impede, obstruct or divert the flow of water or debris in the floodplain which would alter the roadway's discharge capacity or otherwise adversely affect public health, safety and welfare, or cause damage to public or private property in the event of a flood. A moderate degree of effect is being assigned for the proposed project (ETDM #11460, I-95 and Ellis Road Interchange).

Comments on Effects to Resources:
A review of GIS analysis data (Special Flood Hazard Areas) in the EST at the programming screen phase of the project indicates the following approximate acreage within the 100-year floodplain, as designated by Zone AE of the flood hazard zone designation (FEMA Special Flood Hazard Areas):

100 foot buffer distance:
Zone AE - 41.8 acres - 59.7% of total acres

200 foot buffer distance:
Zone AE - 77.0 acres - 57.3% of total acres

500 foot buffer distance:
Zone AE - 177.2 acres - 54.3% of total acres

Approximately 40 acres of 100-year floodplain are identified within the 100 foot buffer distance, 80 acres of 100-year floodplain are identified within the 200 foot buffer distance, and 180 acres of 100-year floodplain are identified within the 500 foot buffer distance of the proposed bridge replacement project. This project has the potential to impact floodplains and their functions in the area.

General comments relating to floodplains include the fact that any development within the 100-year floodplain has the potential for placing citizens and property at risk of flooding and producing changes in floodplain elevations and plan view extent. Development (such as roadways, housing developments, strip malls and other commercial facilities) within floodplains increases the potential for flooding by limiting flood storage capacity and exposing people and property to flood hazards. Development also reduces vegetated buffers that protect water quality and destroys important habitats for fish and wildlife. The area surrounding the proposed interchange project is expected to experience significant growth.

The PD&E phase of the project should include an evaluation of floodplain impacts. FDOT should consider alternatives to avoid adverse effects and incompatible development in the floodplains. Efforts should be made to avoid or minimize impacts to floodplain resources and functions. Engineering design features and hydrological drainage structures should be such that stormwater transport, flow, and discharge meet or exceed flood control requirements. Consultation and coordination with appropriate flood management agencies should occur relating to regulatory requirements, avoidance, minimization and/or mitigation strategies.

FDOT District 5 Feedback to US Environmental Protection Agency's Review

*Comments:*Thank you for your review and comments. During the PD&E study a Location Hydraulics Report will be generated which will further evaluate floodplains and floodways, if present. The LHR will estimate impacts to these resources and recommend structure locations to provide and maintain conveyance and prevent increases in flood stages. Any measurable impacts to floodplains will be mitigated by providing additional floodplain storage capacity.
*Date Feedback Submitted:*2/17/2010

- No review submitted from the FL Department of Environmental Protection
- No review submitted from the Federal Highway Administration

Infrastructure

Coordinator Summary

2 Summary Degree of Effect

Infrastructure Summary Degree of Effect: Minimal

Reviewed By:
FDOT District 5 (2/24/2010)
Comments:
No agencies provided comments on this issue. Based on the GIS analysis, within the 1 mile buffer area there are: two aviation transportation facilities, two airport runways, one hospital, four FAA obstructions, one limited use drinking water well, one solid waste facility, one wastewater facility and six wireless antenna structures. Within the 500 foot buffer area the infrastructures drop to one aviation transportation facility and one FAA obstruction. Therefore, potential infrastructure impacts are minimal. We are assigning a Minimal degree of effect for this issue.

ETAT Reviews for Infrastructure

No reviews found for the Infrastructure Issue.
- No review submitted from the Federal Highway Administration

Navigation

Coordinator Summary

N/A Summary Degree of Effect

Navigation Summary Degree of Effect: N/A / No Involvement

Reviewed By:
FDOT District 5 (2/17/2010)
Comments:
Both the US Coast Guard and the US Army Corps of Engineers have determined that there are no navigable waters within the project area. We are assigning a No Involvement summary degree of effect for navigation issues.

ETAT Reviews for Navigation

0 ETAT Review by Randy Turner, US Army Corps of Engineers (12/22/2009)

Navigation Effect: None

Coordination Document: No Selection

Dispute Information:N/A

Identified Resources and Level of Importance:
No navigable waters were identified within the project area.

Comments on Effects to Resources:
The project will have no impacts to navigation.

FDOT District 5 Feedback to US Army Corps of Engineers's Review
*Comments:*Thank you for your review.
*Date Feedback Submitted:*2/17/2010

N/A ETAT Review by Evelyn Smart, US Coast Guard (12/16/2009)

Navigation Effect: N/A / No Involvement

Coordination Document: No Involvement

Dispute Information:N/A

Identified Resources and Level of Importance:
None found.

Comments on Effects to Resources:
No Coast Guard involvement.

FDOT District 5 Feedback to US Coast Guard's Review
*Comments:*Thank you for your review.
*Date Feedback Submitted:*2/17/2010

- No review submitted from the Federal Highway Administration

Special Designations

Coordinator Summary

2 Summary Degree of Effect

Special Designations Summary Degree of Effect: Minimal

Reviewed By:
FDOT District 5 (2/17/2010)
Comments:
Both EPA and FHWA provided comments on this issue and assigned None and Moderate degrees of effects due to the Melbourne Economic Enhancement District brownfield. We believe this project is not incompatible with this designation so we are assigning a Minimal summary degree of effect.

ETAT Reviews for Special Designations

3 ETAT Review by Cathy Kendall, Federal Highway Administration (01/27/2010)
Special Designations Effect: Moderate

Coordination Document:PD&E Support Document As Per PD&E Manual

Dispute Information:N/A

Identified Resources and Level of Importance:
The GIS analysis indicates the location of a brownfield called the "Melborne Economic Enhancement District" within 200 feet of the project.

Comments on Effects to Resources:
Coordination with DEP and the local government is needed to address brownfield issues as part of the PD&E process.

FDOT District 5 Feedback to Federal Highway Administration's Review
*Comments:*Thank you for your review. The brownfield issue will be coordinated with the Melbourne International Airport, the City of Melbourne, FDOT and FDEP during the upcoming study phase.
*Date Feedback Submitted:*2/17/2010

0 ETAT Review by Madolyn Dominy, US Environmental Protection Agency (01/13/2010)
Special Designations Effect: None

Coordination Document: No Selection

Dispute Information:N/A

Identified Resources and Level of Importance:
None found.

Comments on Effects to Resources:
There are no Special Designation features listed in the GIS analysis data at the programming screen phase of the project other than Special Flood Hazard Areas (See Floodplains issue for comments) and Brownfield Locations (See Contaminated Sites issue for comments).

FDOT District 5 Feedback to US Environmental Protection Agency's Review
*Comments:*Thank you for your review. Comments associated with Special Flood Hazard Areas and Brownfield location were addressed under floodplain and contamination issues, respectively. However, additional coordination on the Brownfield issue will take place between FDOT, FDEP, the

City of Melbourne and the Melbourne International Airport as the study progresses.
*Date Feedback Submitted:*2/17/2010

- No review submitted from the FL Department of Agriculture and Consumer Services

Water Quality and Quantity

Coordinator Summary

2 Summary Degree of Effect

Water Quality and Quantity Summary Degree of Effect: Minimal

Reviewed By:
FDOT District 5 (2/23/2010)
Comments:
Two agencies provided comments on this issue and both assigned Minimal degrees of effect. As the project will provide stormwater attenuation and treatment facilities to the current standards, effects on receiving waters should be minimal. We are assigning a Minimal degree of effect for this issue.

ETAT Reviews for Water Quality and Quantity

2 ETAT Review by Lauren P. Milligan, FL Department of Environmental Protection (01/28/2010)

Water Quality and Quantity Effect: Minimal

Coordination Document: Permit Required

Dispute Information:N/A

Identified Resources and Level of Importance:
Stormwater runoff from the road surface may alter adjacent wetlands and surface waters through increased pollutant loading. Increased runoff carrying oils, greases, metals, sediment, and other pollutants from the increased impervious surface will be of concern. Natural resource impacts within and adjacent to the proposed road right-of-way will likely include alteration of the existing surface water hydrology and natural drainage patterns, and reduction in flood attenuation capacity of area creeks, ditches, and sloughs as a result of increased impervious surface within the watershed.

Comments on Effects to Resources:
Every effort should be made to maximize the treatment of stormwater runoff from the proposed road project to prevent ground and surface water contamination. Stormwater treatment should be designed to maintain the natural predevelopment hydroperiod and water quality, as well as to protect the natural functions of adjacent wetlands. We recommend that the PD&E study include an evaluation of existing stormwater treatment adequacy and details on the future stormwater treatment facilities. Retro-fitting of stormwater conveyance systems would help reduce impacts to water quality.

FDOT District 5 Feedback to FL Department of Environmental Protection's Review
*Comments:*Thank you for your review and comments. The PD&E Study will evaluate any existing stormwater conveyance and treatment facilities and will also identify preliminary pond sites for

treatment and attenuation of stormwater runoff from areas draining to those ponds, including all new impervious surfaces.
*Date Feedback Submitted:*2/23/2010

2 ETAT Review by Madolyn Dominy, US Environmental Protection Agency (01/14/2010)
Water Quality and Quantity Effect: Minimal

Coordination Document: No Selection

Dispute Information:N/A

Identified Resources and Level of Importance:
Resources: Water quality, surface water, groundwater

Level of Importance: These resources are of a high level of importance in the State of Florida. A minimal degree of effect is being assigned to this issue for the proposed project.

Comments on Effects to Resources:
The project area encompasses the Crane Creek drainage basin within the Upper St. Johns River and Middle East Coast hydrologic watersheds. A minimal degree of effect is being assigned to the Water Quality issue since the proposed project is not expected to have a significant impact on water quality in nearby waters. Potential impacts to surface water quality include stormwater runoff into nearby surface water bodies via drainage ditches or other conveyance systems. Stormwater runoff from urban sources, including roadways, carry pollutants such as volatile organics, petroleum hydrocarbons, heavy metals, and pesticides/herbicides. Proper stormwater conveyance, containment, and treatment will be required in accordance with state and federal regulations and guidelines. Also, construction techniques and practices should also be designed and implemented to avoid or minimize impacts to surface water and groundwater.

Crane Creek (Water Body ID: FL-3085) is listed on the Clean Water Act 303(d) list of impaired waters. Crane Creek is impaired for the following pollutants - coliforms, dissolved oxygen, and nutrients. Total Maximum Daily Loads (TMDLs) for this water body have been approved/established or are scheduled for development. A special TMDL development is noted as having been developed for nutrients.

The PD&E study should include a review of water quality standards in Crane Creek, potential sources of water quality impairment, and TMDL requirements and how these regulations and/or requirements may affect the proposed project and environmental resource permits. It is recommended that FDOT consult with the Florida Department of Environmental Protection (FDEP) water quality program on this issue, along with stormwater permitting issues and other water quality issues relating to point and nonpoint source discharges into surface water bodies.

FDOT District 5 Feedback to US Environmental Protection Agency's Review
*Comments:*Thank you for your review and comments. Coordination with FDEP and St. Johns River Water Management District will take place during the PD&E Study in order to identify TMDL criteria for discharges to Crane Creek impaired waters.
*Date Feedback Submitted:*2/23/2010

- No review submitted from the Federal Highway Administration

Wetlands

Coordinator Summary

2 Summary Degree of Effect

Wetlands Summary Degree of Effect: Minimal

Reviewed By:
FDOT District 5 (2/23/2010)
Comments:
Five agencies provided comments on this issue with three assigning Minimal degrees of effect and two assigning Moderate degrees of effects. Due to the minimal acreage of low quality and fragmented wetlands within the project area, we are assigning a Minimal degree of effect for this issue.

ETAT Reviews for Wetlands

3 ETAT Review by Brandon Howard, National Marine Fisheries Service (01/13/2010)

Wetlands Effect: Moderate

Coordination Document: No Involvement

Dispute Information:N/A

Identified Resources and Level of Importance:
Based on our review of the information provided on the EST website, GIS-based effects analysis on wetlands, and interpretation of aerial photographs, NOAA's National Marine Fisheries Service (NMFS) determined that emergent wetlands, ponds, and canals are located within the project corridor. These wetlands range from low to moderate in quality.

Comments on Effects to Resources:
The wetlands along the proposed interchange provide water quality functions, such as removal of sediments, excess nutrients, and contaminants, which benefit and support these aquatic ecosystems. Through hydrological connections, these wetlands also contribute plant material and other useable nutrients (both dissolved and particulate organic matter) into aquatic food webs that include recreationally, commercially, or ecologically important species within downstream estuaries. If wetland impacts are unavoidable, sequential minimization and mitigation should take place.

With construction of the new interchange, secondary and indirect impacts should be explored. It appears that no expansion is proposed to the west, but this project could lead to urban sprawl. A discussion addressing this issue should be included in the Wetlands Evaluation Report.

In addition to the direct impacts from filling wetlands, construction activities may impact adjacent wetlands through sedimentation and runoff.

Additional Comments (optional):
Magnuson-Stevens Act: Based on the project location, information provided in the ETDM website, and GIS-based analysis of impacts, NOAA's National Marine Fisheries Service (NMFS) concludes the proposed work would not directly impact areas that support essential fish habitat (EFH) or NOAA trust fishery resources. NMFS has no comments or recommendations to provide pursuant to the EFH requirements of the Magnuson-Stevens Fishery Conservation and Management Act (P.L. 104-297); and this project will not require an EFH Assessment. Further consultation on this matter is not necessary unless future modifications are proposed and you believe that the proposed action may result in adverse impacts to EFH.

Endangered Species Act: We are not aware of any threatened or endangered species or critical habitat under the purview of NMFS that occur within the project area. However, it should be noted that a "no effect" determination must be made by the action agency and the reasoning underlying the determination should be documented in a project file. Please coordinate closely with the U.S. Fish and Wildlife Service for other species listed under the Endangered Species Act that may require consultation.

Fish and Wildlife Coordination Act: The comments NMFS provided regarding sequential mitigation are in accordance with the Fish and Wildlife Coordination Act.

FDOT District 5 Feedback to National Marine Fisheries Service's Review
*Comments:*Thank you for your review and comments. We understand that an EFH Assessment will not be required and that no further consultation on EFH issues will be required. We will coordinate with the US Fish and Wildlife Service during the study phase for a determination of effects to threatened and endangered species.
*Date Feedback Submitted:*2/23/2010

2 ETAT Review by Madolyn Dominy, US Environmental Protection Agency (01/11/2010)
Wetlands Effect: Minimal

Coordination Document: No Selection

Dispute Information:N/A

Identified Resources and Level of Importance:
Resources: Wetlands, wetlands habitat, water quality

Level of Importance: These resources are of a high level of importance in the State of Florida. A minimal degree of effect is being assigned to the wetlands issue for the proposed project.

Comments on Effects to Resources:
There are a small amount of wetlands within the immediate project area (2.3 acres at 100 foot buffer, 4.6 acres at 200 foot buffer, and 24.4 acres at 500 foot buffer). These existing wetlands are on the east side of the project and have been impacted (fragmented) by previous development. To the west of the project is a large area of swamp/marsh land. EPA is assigning a minimal degree of effect to the wetlands issue due to the fact that there is not extensive acreage of wetlands within the immediate buffer distances and the fact that the existing wetlands which may be directly impacted by the project are of low quality and fragmented.

EPA recommends that the PD&E study include an analysis of wetland areas to be potentially impacted by the project, including the swamp area to the west of the project. The PD&E study should include a delineation of wetlands; functional analysis of wetlands to determine their value and function; an evaluation of stormwater pond sites to determine their impact on wetlands; avoidance and minimization strategies for wetlands; and mitigation plans to compensate for adverse impacts.

One issue of concern includes increased stormwater runoff and the increase of pollutants into surface waters and wetlands as a result of any roadway project and other point and nonpoint sources. Every effort should be made to maximize the collection and treatment of stormwater. Stormwater collection and treatment mechanisms should be designed to protect the function of surrounding wetlands, floodplains, and surface water features. Engineering design features and

hydrological drainage structures should be such that stormwater transport, flow, and discharge meet or exceed requirements.

Additional Comments (optional):
Indirect and cumulative effects on wetlands should be evaluated to identify and quantify incremental and cumulative impacts on natural resources (wetlands) as a result of past, present, and reasonably foreseeable actions, including the proposed project and other land use actions.

FDOT District 5 Feedback to US Environmental Protection Agency's Review
*Comments:*Thank you for your review and comments. The study phase will delineate wetlands and perform a functional analysis of the wetland systems. Preliminary pond sites will be selected to avoid wetland impacts. Avoidance and minimization strategies for wetlands will be documented in project reports.
*Date Feedback Submitted:*2/23/2010

2 ETAT Review by Randy Turner, US Army Corps of Engineers (12/22/2009)
Wetlands Effect: Minimal

Coordination Document: No Selection

Dispute Information:N/A

Identified Resources and Level of Importance:
A review of the EST revealed the presence of wetlands on the east side of I-95 that appear to be low quality and fragmented by development. Using the GIS project overlay, it does not appear that the wetland system to the west of I-95 would be impacted; although, a jurisdictional determination should be completed to determine the extent of water of the United States on both the east and west side of I-95.

Comments on Effects to Resources:
It appears impacts would be minimal; however, a functional assessment should be competed to determine the functional value of the system(s).

FDOT District 5 Feedback to US Army Corps of Engineers's Review
*Comments:*Thank you for your review. A functional assessment of wetlands will be conducted during the study phase.
*Date Feedback Submitted:*2/23/2010

3 ETAT Review by Todd Samuel Mecklenborg, US Fish and Wildlife Service (01/19/2010)
Wetlands Effect: Moderate

Coordination Document:PD&E Support Document As Per PD&E Manual

Dispute Information:N/A

Identified Resources and Level of Importance:
Federally listed plant and animal species, migratory birds, the habitats they occupy and are

supported by (breeding, feeding, and sheltering), and wetlands are trust resources that have a high level of importance to the mission of the U.S. Fish and Wildlife Service.

Our mission is working with others to conserve, protect and enhance fish, wildlife, plants and their habitats for the continuing benefit of the American people. We are both a leader and trusted partner in fish and wildlife conservation, known for our scientific excellence, stewardship of lands and natural resources, dedicated professionals and commitment to public service.

Comments on Effects to Resources:
The Service has reviewed our Geographic Information Systems (GIS) database and the GIS database on the Environmental Screening Tool for recorded locations of federally listed threatened and endangered species on or adjacent to the project study area. The Service's GIS database is a compilation of data received from several sources. After a literature review utilizing the 500 foot buffer and field reviews of the proposed alignments, the Service has the following comments and recommendations:

The species of concern for the Ellis Roadway improvements and the new I-95 Interchange are the Audubon's crested caracara (Polyborus plancus audubonii), wood stork (Mycteria americana) and, Florida scrub-jay (Aphelocoma coeruluscens). The area immediately west of I-95 is part of the St. John's River floodplain. This large system has the potential to support nesting and foraging habitat for the caracara as well as foraging opportunities for the wood stork. The project is within the core foraging area of two wood stork colonies. Surveys will need to document usage of this area by these species.

Any undeveloped xeric areas immediately east of the proposed new interchange will need to be surveyed for Florida scrub-jays. Scrub-jays occur near the project corridor and may still persist within the study corridor. This species has been reduced to small oak scrub patches within residential developments in many areas of Brevard County. If habitats utilized by this species are impacted, surveys will need to be performed to document the presence or absence of the species.

The Service recommends the wetlands in the project area be delineated and evaluated using an evaluation technique such as the Wetland Rapid Assessment Procedure (WRAP) or the Uniform Mitigation Assessment Method (UMAM). If impacts to wetlands are unavoidable, the Service would recommend minimizing the impacts to the greatest extent practicable and that all impacts to wetlands are mitigated. Mitigation should be in-kind and within the same basin as the proposed impacts. Suitable foraging habitat for the wood stork should be mitigated in-kind within the core foraging area of the colonies.

Additional Comments (optional):
Comments are provided in accordance with the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), section 7 of the Endangered Species Act of 1973, (87 Stat 884, as amended 16 U.S.C. 1531 et seq.), the Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-712 et seq.), and the Marine Mammal Protection Act of 1972, as amended (16 U.S.C. 1361 et seq.).

FDOT District 5 Feedback to US Fish and Wildlife Service's Review
*Comments:*Thank you for your review and comments and for pointing out that the project is within the core foraging area of two wood stork colonies. Surveys will be conducted during the PD&E Study to document the presence of listed species and their habitat. A functional analysis of the wetland systems will also be conducted during the study phase.
*Date Feedback Submitted:*2/23/2010

2 ETAT Review by Lauren P. Milligan, FL Department of Environmental Protection (01/28/2010)

Wetlands Effect: Minimal

Coordination Document: Permit Required

Dispute Information:N/A

Identified Resources and Level of Importance:
The EST reports approximately 24.4 acres of palustrine wetlands within the 500-ft. project buffer.

Comments on Effects to Resources:
The project will require an environmental resource permit (ERP) from the St. Johns River Water Management District. The ERP applicant will be required to eliminate or reduce the proposed wetland resource impacts of roadway construction to the greatest extent practicable:

- Minimization should emphasize avoidance-oriented corridor alignments, wetland fill reductions via pile bridging and steep/vertically retained side slopes, and median width reductions within safety limits.
- Wetlands should not be displaced by the installation of stormwater conveyance and treatment swales; compensatory treatment in adjacent uplands is the preferred alternative.
- After avoidance and minimization have been exhausted, mitigation must be proposed to offset the adverse impacts of the project to existing wetland functions and values. Significant attention is given to forested wetland systems, which are difficult to mitigate.
- The cumulative impacts of concurrent and future road improvement projects in the vicinity of the subject project should also be addressed.

FDOT District 5 Feedback to FL Department of Environmental Protection's Review
*Comments:*Thank you for your review and comments. The PD&E Study will delineate all on site wetlands and will conduct a functional analysis on these wetland systems. All efforts will be made to avoid wetland impacts to the extent feasible. If wetland impacts are unavoidable, design features to minimize these impacts will be explored.
*Date Feedback Submitted:*2/23/2010

- No review submitted from the Federal Highway Administration

Wildlife and Habitat

Coordinator Summary

3 Summary Degree of Effect

Wildlife and Habitat Summary Degree of Effect: Moderate

Reviewed By:
FDOT District 5 (2/24/2010)
Comments:
Two agencies provided comments on this issue and both assigned Moderate degrees of effect. Due to the project being within several USF&WS Consultation Areas, biodiversity hot spots and having habitat types capable of supporting numerous threatened, endangered or species of special concern, we are assigning a Moderate degree of effect for this issue.

ETAT Reviews for Wildlife and Habitat

3 ETAT Review by Todd Samuel Mecklenborg, US Fish and Wildlife Service (01/19/2010)
Wildlife and Habitat Effect: Moderate

Coordination Document:PD&E Support Document As Per PD&E Manual

Dispute Information:N/A

Identified Resources and Level of Importance:
Federally listed plant and animal species, migratory birds, the habitats they occupy and are supported by (breeding, feeding, and sheltering), and wetlands are trust resources that have a high level of importance to the mission of the U.S. Fish and Wildlife Service.

Our mission is working with others to conserve, protect and enhance fish, wildlife, plants and their habitats for the continuing benefit of the American people. We are both a leader and trusted partner in fish and wildlife conservation, known for our scientific excellence, stewardship of lands and natural resources, dedicated professionals and commitment to public service.

Comments on Effects to Resources:
The Service has reviewed our Geographic Information Systems (GIS) database and the GIS database on the Environmental Screening Tool for recorded locations of federally listed threatened and endangered species on or adjacent to the project study area. The Service's GIS database is a compilation of data received from several sources. After a literature review utilizing the 500 foot buffer and field reviews of the proposed alignments, the Service has the following comments and recommendations:

The species of concern for the Ellis Roadway improvements and the new I-95 Interchange are the Audubon's crested caracara (Polyborus plancus audubonii), wood stork (Mycteria americana) and, Florida scrub-jay (Aphelocoma coeruluscens). The area immediately west of I-95 is part of the St. John's River floodplain. This large system has the potential to support nesting and foraging habitat for the caracara as well as foraging opportunities for the wood stork. The project is within the core foraging area of two wood stork colonies. Surveys will need to document usage of this area by these species.

Any undeveloped xeric areas immediately east of the proposed new interchange will need to be surveyed for Florida scrub-jays. Scrub-jays occur near the project corridor and may still persist within the study corridor. This species has been reduced to small oak scrub patches within residential developments in many areas of Brevard County. If habitats utilized by this species are impacted, surveys will need to be performed to document the presence or absence of the species.

The Service recommends the wetlands in the project area be delineated and evaluated using an evaluation technique such as the Wetland Rapid Assessment Procedure (WRAP) or the Uniform Mitigation Assessment Method (UMAM). If impacts to wetlands are unavoidable, the Service would recommend minimizing the impacts to the greatest extent practicable and that all impacts to wetlands are mitigated. Mitigation should be in-kind and within the same basin as the proposed impacts. Suitable foraging habitat for the wood stork should be mitigated in-kind within the core foraging area of the colonies.

Additional Comments (optional):
Comments are provided in accordance with the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), section 7 of the Endangered Species Act of 1973, (87 Stat 884, as amended 16 U.S.C. 1531 et seq.), the Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-712 et seq.), and the Marine Mammal Protection Act of 1972, as amended (16 U.S.C. 1361 et seq.).

FDOT District 5 Feedback to US Fish and Wildlife Service's Review
*Comments:*Thank you for your review and comments. Wildlife and Habitat surveys will be conducted

during the PD&E Study phase. Special attention will be paid towards the Audubon's crested caracara, wood stork and the Florida scrub-jay. A functional assessment of wetlands will also be conducted. Further coordination with the Service will take place as the study progresses.
*Date Feedback Submitted:*2/23/2010

3 ETAT Review by Scott Sanders, FL Fish and Wildlife Conservation Commission (01/14/2010)
Wildlife and Habitat Effect: Moderate

Coordination Document: To Be Determined: Further Coordination Required

Dispute Information:N/A

Identified Resources and Level of Importance:
The Habitat Conservation Scientific Services Section of the Florida Fish and Wildlife Conservation Commission (FWC) has coordinated an agency review of ETDM #11460, Brevard County, and provides the following comments related to potential effects to fish and wildlife resources on this Programming Phase project.

The Project Description Summary states that this project involves the construction of a new interchange on I-95, connecting to Ellis Road in the Melbourne metropolitan area. Ellis Road would be improved from a two-lane local street cross section to a four-lane arterial section from I-95 to NASA Boulevard, a distance of 2.1 miles, including approximately 0.3 miles of new Right-of-way (ROW) between I-95 and the current western terminus of Ellis Road. The purpose of this interchange project is to relieve traffic congestion at the US 192 and Eau Gallie Boulevard interchanges, south and north, respectively, of the proposed Ellis Road interchange.

The project area was evaluated for potential fish, wildlife, and habitat resources within 500 feet of the proposed alignment. Our assessment reveals that the project area along Ellis Road is dominated by commercial/industrial development, with some residential land use in the less developed area near I-95. Man-altered land use types comprise 61.75% of the assessment area, including High and Low Impact Urban (185.6 acres, 56.84%), Open Water (borrow pits, 13.1 acres, 4.02%), Other Agriculture (2.4 acres, 0.75%), and Bare Soil (0.4 acres, 0.14%). Native plant communities include: Hardwood Hammocks and Forests (28.4 acres, 8.71%), Dry Prairies (21.6 acres, 6.60%), Pinelands (19.6 acres, 5.99%), Freshwater Marsh and Wet Prairie (18.7 acres, 5.72%), Shrub Swamp (18.4 acres, 5.65%), Mixed Hardwood-Pine Forest (8.7 acres, 2.65%), Hardwood Swamp (5.3 acres, 1.63%), Shrub and Brushland (2.0 acres, 0.61%), Mixed Wetland Forest (1.3 acres, 0.41%), and Cypress Swamp (0.9 acres, 0.27%).

Based on range and preferred habitat type, the following species listed by our agency as Endangered (E), Threatened (T), or Species of Special Concern (SSC) may occur along the project area: gopher frog (SSC), Eastern indigo snake (T), Florida pine snake (SSC), gopher tortoise (T), least tern (T), limpkin (SSC), snowy egret (SSC), little blue heron (SSC), tricolored heron (SSC), white ibis (SSC), Florida sandhill crane (T), wood stork (E), burrowing owl (SSC), crested caracara (T), Southeastern American kestrel (T), Florida scrub jay (T), Sherman's fox squirrel (SSC), and Florida mouse (SSC).

The GIS analysis revealed several specific characteristics associated with lands along the project alignment that provide an indication of potential habitat quality or sensitivity that will require field studies to verify the presence or absence of listed wildlife species and the quality of wildlife habitat resources. Within the assessment area there are 14 FWC Biodiversity Hot Spots capable of supporting 3 to 4, 5 to 6, or 7 or more focal species, and two FWC Priority Wetlands capable of

supporting 4 to 6 focal species in wetlands and 1 to 3 focal species in uplands. The project is within the U.S. Fish and Wildlife Service Consultation Areas for crested caracara, scrub jay, red-cockaded woodpecker, and snail kite. Nearly all lands west of the I-95 ROW at the project site are within the floodplain of the St. Johns River, consisting of seasonally flooded marsh and shrub swamp utilized by a wide variety of wildlife species.

Primary wildlife issues associated with this project include: potential adverse effects to a moderate number of species listed by our agency as Endangered, Threatened, or Species of Special Concern; direct loss of seasonal wetland habitats in the St. Johns River floodplain resulting from interchange construction west of I-95; potential water quality degradation as a result of additional stormwater runoff from the expanded roadway surface draining into adjacent wetlands, and ultimately the St. Johns River; and increased roadkills of mammals, birds, reptiles, and amphibians due to the increase in roadway surface and traffic.

Comments on Effects to Resources:
Based on the project information provided, we believe that direct and indirect effects of this new interchange could be moderate, primarily because of the potential for adverse effects on wildlife resources resulting from construction in wetlands west of I-95, and from direct and secondary construction in undeveloped uplands just east of I-95.

Additional Comments (optional):
We recommend that the Project Development and Environment (PD&E) Study address natural resources by including the following measures for conserving fish and wildlife and habitat resources that may occur within and adjacent to the project area. Plant community mapping and wildlife surveys for the occurrence of wildlife species listed by the FWC as Endangered, Threatened, or Species of Special Concern should be performed, both along the Right-of-way and within sites proposed for Drainage Retention Areas. A plan should also be implemented to avoid and minimize project effects to the extent practicable. Drainage Retention Areas and equipment staging areas should be located in previously disturbed sites to avoid habitat destruction or degradation. Opportunities should also be investigated for providing structures to maintain habitat connectivity. A compensatory mitigation plan should include the replacement of any wetland, upland, or aquatic habitat lost as a result of the project. This could be achieved by purchasing land, or securing conservation easements over lands adjacent to existing public lands, and by habitat restoration. Replacement habitat for mitigation should be type for type, as productive, and equal to or of higher functional value. Please notify us immediately if the design, extent, or footprint of the current project is modified, as we may choose to provide additional comments and/or recommendations.

We appreciate the opportunity to provide input on highway design and the conservation of fish and wildlife resources. Please contact Brian Barnett at (850) 528-6316 or email brian_barnett@urscorp.com to initiate the process for further overall coordination on this project.

FDOT District 5 Feedback to FL Fish and Wildlife Conservation Commission's Review
*Comments:*Thank you for your review and comments. Consultation with the US Fish and Wildlife Service will occur during the PD&E Study for the following species: crested caracara, scrub jay, red-cockaded woodpecker and the snail kite. Surveys for other listed and species of special concern will also be conducted during the study phase with an emphasis on those species listed as having a probability of occurrence within the project area. Results of this survey will be contained within the Wildlife and Habitat Evaluation Report.
*Date Feedback Submitted:*2/24/2010

- No review submitted from the Federal Highway Administration
- No review submitted from the US Forest Service

ETAT Reviews: Cultural

Historic and Archaeological Sites

Coordinator Summary

2 Summary Degree of Effect

Historic and Archaeological Sites Summary Degree of Effect: Minimal

Reviewed By:
FDOT District 5 (2/24/2010)
Comments:
Two entities provided comments on this issue with one assigning a Minimal degree of effect and the other a Moderate degree of effect. Surveys have been conducted along the I-95 corridor and for the realignment of Nasa Blvd. at the eastern terminus of this project. No significant resources were identified in either survey nor for a survey conducted immediately north of the project area. Based on the lack of any known resources within the project area, we are assigning a Minimal degree of effect. Nonetheless, a Cultural Resource Assessment Survey will still be conducted during the study phase.

ETAT Reviews for Historic and Archaeological Sites

3 ETAT Review by Jennifer R Ross, FL Department of State (12/22/2009)

Historic and Archaeological Sites Effect: Moderate

Coordination Document:PD&E Support Document As Per PD&E Manual

Dispute Information:N/A

Identified Resources and Level of Importance:
The GIS analysis revealed that there is only one previously-recorded cultural resource (Historic or Archaeological Site) within close vicinity (i.e. 500 feet or closer) of the project corridor. This resource, the MELBOURNE AIRPORT DRAINAGE CANAL (8BR01722), is a FLORIDA MASTER SITE FILE RESOURCE GROUP that is located within the project's 500 foot buffer. The SHPO determined that the canal was INELIGIBLE FOR NRHP in 2000. THIS CATEGORY'S LEVEL OF IMPORTANCE IS LOW.

Comments on Effects to Resources:
The GIS analysis revealed that the MELBOURNE AIRPORT DRAINAGE CANAL (8BR01722) is the only previously-recorded cultural resource within close vicinity (i.e. 500 feet or closer) of the project corridor. Due to the resource's location, it is likely to be directly affected by the project activities. This resource, however, has been determined to be INELIGIBLE FOR NRHP by the SHPO.

Additional Comments (optional):
The GIS analysis revealed that only the eastern and western edges of the project corridor have been subject to study (Survey Nos. 8791 and 6415) and therefore the majority of the project area has not yet been subject to a comprehensive effort to identify, document, and assess all significant cultural resources within its limits. Since unidentified potentially significant archaeological and historic sites may be present it is our recommendation that prior to initiating any project related land clearing or ground disturbing activities within the project area, that it should be subjected to a systematic professional archaeological and historical survey. The purpose of this survey will be to locate and assess the significance of historic properties present and to address effects in regard to all identified historic properties within the project area. The resultant survey report shall conform to the specifications set forth in Chapter 1A-46 Florida Administrative Code and will need to be forwarded to this agency for review.

FDOT District 5 Feedback to FL Department of State's Review
*Comments:*Thank you for your review and comments. A Cultural Resource Assessment Survey by a professional archaeological firm will be conducted during the PD&E phase. Results of this survey will be provided to the SHPO for review and comments.
*Date Feedback Submitted:*2/24/2010

2 ETAT Review by Steve Terry, Miccosukee Tribe of Indians of Florida (01/19/2010)
Historic and Archaeological Sites Effect: Minimal

Coordination Document: No Selection

Dispute Information:N/A

Identified Resources and Level of Importance:
There are no recorded archaeological sites reported near this project. However, a Cultural Resources Survey will need to be done to ascertain if there are any archaeological sites within the project boundaries.

Comments on Effects to Resources:
Once a Cultural Resources Survey has been done, then effects, if any, to archaeological sites can be ascertained.

Additional Comments (optional):
If the Cultural Resources Survey shows there are no archaeological sites that will be impacted by this project, then no further consultation is necessary. However, if the Cultural Resources Survey does show that archaeological sites will be impacted by this project, then further consultation with the Miccosukee Tribe should be done.

FDOT District 5 Feedback to Miccosukee Tribe of Indians of Florida's Review
*Comments:*Thank you for your review and comments. A Cultural Resource Assessment Survey will be conducted during the project development phase. Results of this survey will be shared with the Miccosukee Tribe and further consultation, if necessary, will be conducted.
*Date Feedback Submitted:*2/24/2010

- No review submitted from the Federal Highway Administration
- No review submitted from the Seminole Tribe of Florida

Recreation Areas

Coordinator Summary

0 Summary Degree of Effect
Recreation Areas Summary Degree of Effect: None

Reviewed By:
FDOT District 5 (3/10/2010)

Comments:
Two agencies, FL Department of Environmental Protection and US Environmental Protection Agency, reviewed this issue and assigned a degree of effect of None, finding that no recreation areas should be impacted by the project. FDOT concurs with this summary.

ETAT Reviews for Recreation Areas

0 ETAT Review by Lauren P. Milligan, FL Department of Environmental Protection (01/28/2010)

Recreation Areas Effect: None

Coordination Document: No Selection

Dispute Information:N/A

Identified Resources and Level of Importance:
None found.

Comments on Effects to Resources:
None found.

FDOT District 5 Feedback to FL Department of Environmental Protection's Review
*Comments:*Thank you.
*Date Feedback Submitted:*3/10/2010

0 ETAT Review by Madolyn Dominy, US Environmental Protection Agency (01/07/2010)

Recreation Areas Effect: None

Coordination Document: No Selection

Dispute Information:N/A

Identified Resources and Level of Importance:
None found.

Comments on Effects to Resources:
None found.

FDOT District 5 Feedback to US Environmental Protection Agency's Review
*Comments:*Thank you.
*Date Feedback Submitted:*3/10/2010

- No review submitted from the Federal Highway Administration
- No review submitted from the National Park Service

Section 4(f) Potential

Coordinator Summary

N/A Summary Degree of Effect

Section 4(f) Potential Summary Degree of Effect: N/A / No Involvement

Reviewed By:
FDOT District 5 (4/13/2010)
Comments:
One agency, National Park Service, reviewed this issue and assigned a degree of effect of No Involvement. As the GIS data analysis shows no impact to parks or any other resources protected under Section 4(f) in the immediate project area, FDOT is assigning a degree of effect of No Involvement to this issue.

ETAT Reviews for Section 4(f) Potential

N/A ETAT Review by Anita Barnett, National Park Service (01/15/2010)

Section 4(f) Potential Effect: N/A / No Involvement

Coordination Document: No Involvement

Dispute Information:N/A

Identified Resources and Level of Importance:
None found.

Comments on Effects to Resources:
None found.

FDOT District 5 Feedback to National Park Service's Review
*Comments:*Thank you.
*Date Feedback Submitted:*3/10/2010

- No review submitted from the Federal Highway Administration

ETAT Reviews: Community

Aesthetics

Coordinator Summary

2 Summary Degree of Effect

Aesthetics Summary Degree of Effect: Minimal

Reviewed By:
FDOT District 5 (2/18/2010)

Comments:
No reviews or comments were received for this issue. According to the GIS analysis, the potential for noise or vibration impacts is considered minimal. Accordingly, a Summary Degree of Effect Minimal is being assigned for this issue.

ETAT Reviews for Aesthetics

No reviews found for the Aesthetics Issue.
- No review submitted from the Federal Highway Administration
- No review submitted from the Space Coast TPO

Economic

Coordinator Summary

1 Summary Degree of Effect

Economic Summary Degree of Effect: Enhanced

Reviewed By:
FDOT District 5 (3/10/2010)
Comments:
FDOT agrees with Space Coast TPO's assessment that this project would likely enhance the economic development of the area, helping to support its future growth. We concur that the project could result in enhanced economic activity.

ETAT Reviews for Economic

1 ETAT Review by Susan Ditta, Space Coast TPO (01/21/2010)

Economic Effect: Enhanced

Coordination Document: No Selection

Dispute Information:N/A

Identified Resources and Level of Importance:
This Interchange will provide numerous economic development benefits for not only Brevard County, but Indian River County, as well. The existing I-95 Interchanges that one may take to get to Melbourne International Airport (MLB): US 192 to the south and Eau Gallie Blvd. to the north, hold projected deficiencies. As noted in the IJR, the interchange at US 192/New Haven Avenue with I-95 is operating at or below the minimum acceptable level of service standards established for this FIHS facility. This operational failure of the interchange and the Airport's only SIS connector impedes economic growth for the Airport and for supporting businesses located near the Airport. A new interchange and direct connection to the Airport will provide relief to the existing interchanges and better access to the Airport. The vacinity of MLB serves as the second largest employment area in Brevard County. MLB is a multimodal SIS hub which serves commercial and general aviation, interstate bus and is a potential future rail connection. MLB's total number of passenger enplanements increased by 6.0 percent in 2008 (statewide average declined by seven percent). MLB is also important to the cruise industry (Port Canaveral), as it is the closest commercial airport. The Space Coast TPO, Brevard County, the cities of Palm Bay, Melbourne and West Melbourne, as well as the Melbourne Airport Authority and many other private concerns have been working on the

development of the St. Johns Heritage (also known as Palm Bay) Parkway for over a decade. The proposed Parkway will provide numerous transportation benefits for the South Brevard County and North Indian River County areas. Item #11460, the Ellis Road Interchange @ I-95, is an integral component of the Parkway projects.

Comments on Effects to Resources:
The area around MLB is designated "industrial" on the City of Melbourne's Future Land Use Map. By providing a more direct connection between MLB and I-95, additional employment centers may be realized which would not only increase employment opportunities. MLB's industrial park holds a future potential growth of over 300%.

Additional Comments (optional):
The Federal Highway Administration has approved an Interchange Justification Report (04/09) which serves to approve the Interchange from an operational standpoint. Ellis Road will require improvements to accommodate this new interchange.

FDOT District 5 Feedback to Space Coast TPO's Review
*Comments:*Thank you for your review and comments.
*Date Feedback Submitted:*3/10/2010

- No review submitted from the Federal Highway Administration

Land Use

Coordinator Summary

2 Summary Degree of Effect

Land Use Summary Degree of Effect: Minimal

Reviewed By:
FDOT District 5 (3/10/2010)
Comments:
Both reviewing agencies of this issue, FL Department of Community Affairs and the Space Coast TPO , have assigned a degree of effect of Minimal, both citing that this project is included in the City's Comprehensive Plan and is consistent with the TPO's goals. FDOT is also assigning a Minimal Degree of effect.

ETAT Reviews for Land Use

2 ETAT Review by Gary Donaldson, FL Department of Community Affairs (02/10/2010)

Land Use Effect: Minimal

Coordination Document: No Selection

Dispute Information:N/A

Identified Resources and Level of Importance:

The Department of Community Affairs has reviewed the referenced project and has determined that it is identified on the Map T-9 of the City of Melbourne Future Roadway Transportation Map Series and is consistent with the City Comprehensive Plan.

Comments on Effects to Resources:
see above

FDOT District 5 Feedback to FL Department of Community Affairs's Review
*Comments:*Thank you for your review and determination of consistency.
*Date Feedback Submitted:*3/10/2010

2 ETAT Review by Susan Ditta, Space Coast TPO (01/21/2010)
Land Use Effect: Minimal

Coordination Document: No Selection

Dispute Information:N/A

Identified Resources and Level of Importance:
Land uses within the area are residential, commercial, office, agricultural and conservation. This project is consistent with local government comprehensive plans, as well as the TPO Goals and Objectives.

Comments on Effects to Resources:
Construction of this Interchange could encourage development that is compatible with existing land use plans.

Additional Comments (optional):
The Federal Highway Administration has approved an Interchange Justification Report (04/09) which serves to approve this Interchange from an operational standpoint. Ellis Road will requirement improvements to accommodate this new interchange. There has been public involvement throughout the St. Johns Heritage (Palm Bay) Parkway discussions, of which this Interchange has been a part. As noted in the IJR, a public involvement plan will be developed during the PD&E study for this project. Public input will be obtained from interested groups including homeowners, businesses, agricultural interests, etc. Public meetings will be held to obtain official public comment on the project.

FDOT District 5 Feedback to Space Coast TPO's Review
*Comments:*Thank you for your review. The PD&E Study will have a public information plan which may consist of a project web site, newsletters, informational workshops and a formal Public Hearing.
*Date Feedback Submitted:*3/10/2010

- No review submitted from the Federal Highway Administration

Mobility

Coordinator Summary

1 Summary Degree of Effect

Mobility Summary Degree of Effect: Enhanced

Reviewed By:
FDOT District 5 (3/10/2010)
Comments:
Two agencies responded to this issue. The Space Coast TPO gave an enhanced degree of effect based on the fact that this project would increase mobility for the residents and businesses within the area, provide congestion relief for US 192 and provide a direct connection between the interstate SIS facility and the multi -modal SIS hub at the Melbourne International Airport. The Federal Highway Administration gave a moderate degree of effect citing both a nearby high school and a high priority for greenway linkages in this area.
We share FHWA's safety concerns for students arriving and departing from the school and the PD&E Study will evaluate pedestrian and bicycle facilities, which currently do not exist. However, we believe that overall this project will enhance mobility within the area. We are assigning an Enhanced degree of effect for this issue.

ETAT Reviews for Mobility

1 ETAT Review by Susan Ditta, Space Coast TPO (01/21/2010)

Mobility Effect: Enhanced

Coordination Document: No Selection

Dispute Information:N/A

Identified Resources and Level of Importance:
This project is included in the Space Coast Transportation Planning Organization's Project Priorities and 2025 Cost Feasible Long Range Transportation Plan, as well as the Airport's Master Plan. Capacity improvements are consistent with regional transportation plans, including: FDOT Five-Year Work Program, FDOT FIHS plans, Brevard and Indian River County comprehensive Plans, Committed improvements for local and private sources,and the Brevard County access management plans. Airport surrounding authorities: Cities of Melbourne, West Melbourne and Palm Bay support this more direct Melbourne International Airport (MLB)access route. According to the Economic Development Commission of Florida's Space Coast (12/08), there are over 55,000 jobs within a 3 mile radius of the Airport. This project could positively benefit surrounding communities through increased mobility between their residential areas and employment opportunities.

Comments on Effects to Resources:
This Interchange holds many positive effects, including: increased mobility by providing more (hence easier) on/off access to I-95 making it more readily accessible; improved emergency response related to incidents on the Interstate; relief of traffic congestion at adjacent Interchanges, particularly during commuter travel peak times; and, any necessary evacuations would be expedited.

Additional Comments (optional):
MLB is a multimodal SIS hub which serves commercial and general aviation, interstate bus and is a potential future rail connection. There is currently no direct connection between MLB and I-95. The Federal Highway Administration has approved an Interchange Justification Report(04/09)which serves to approve the Interchange from an operational standpoint. Ellis Road will require improvements to accommodate this new interchange.

FDOT District 5 Feedback to Space Coast TPO's Review

*Comments:*Thank you for your review and comments.
*Date Feedback Submitted:*3/10/2010

3 ETAT Review by Cathy Kendall, Federal Highway Administration (01/27/2010)
Mobility Effect: Moderate

Coordination Document:PD&E Support Document As Per PD&E Manual

Dispute Information:N/A

Identified Resources and Level of Importance:
The ETDM GIS analysis indicates the location of a senior high school within 200 feet of the proposed project. The analysis also notes that there is a high priority for greenway linkages in this area.

Comments on Effects to Resources:
The mobility needs for students and faculty at the high school, as well as the need for greenway linkages, should be addressed in the PD&E. This analysis should address safety conisiderations for the users of these existing and potential facilities that should be considered in the design of the project.

FDOT District 5 Feedback to Federal Highway Administration's Review
*Comments:*Thank you for your review and comments. The PD&E study will evaluate pedestrian and bicycle facilities with a special emphasis on safety issues as it relates to the school. We believe that this project will provide for an enhancement of these facilities over existing conditions.
*Date Feedback Submitted:*3/10/2010

- No review submitted from the Federal Transit Administration

Relocation

Coordinator Summary

2 Summary Degree of Effect
Relocation Summary Degree of Effect: Minimal

Reviewed By:
FDOT District 5 (3/10/2010)
Comments:
The Space Coast TPO provided comments on this issue and assigned a None degree of effect, citing a preliminary analysis conducted for the interchange IJR. However, we believe that improvements to Ellis Road will require acquisition of new right of way for the roadway and for stormwater facilities but it is unknown at this time if any of those acquisitions would require relocations under the Uniform Relocation and Assistance Act. Therefore, we are assigning a Minimal degree of effect for relocations.

ETAT Reviews for Relocation

0 ETAT Review by Susan Ditta, Space Coast TPO (01/21/2010)

Relocation Effect: None

Coordination Document: No Selection

Dispute Information:N/A

Identified Resources and Level of Importance:
The area around the proposed Interchange includes residential, commercial, office, agricultural and conservation. There is some land west of I-95 that is not fully developed and land use changes within this area may occur in the future.

Comments on Effects to Resources:
Based on the Interchange Justification Report, there does not appear to be any relocation issues. There does not appear to be any residences/dwellings, businesses or public facilities that would need to be relocated because of this proposed Interchange project.

Additional Comments (optional):
The Federal Highway Administration approved an Interchange Justification Report (04/09) which serves to approve the Interchange from an operational standpoint. Ellis Road will require improvements to accommodate this new connection. The public has had significant involvement in this project's development process, as the Interchange is part of the long-discussed St. Johns Heritage (Palm Bay) Parkway. As noted in the IJR, a public involvement plan will be developed during the PD&E study for this project. Public input will be obtained from interested groups including homeowners, businesses, agricultural interests, etc.

FDOT District 5 Feedback to Space Coast TPO's Review
*Comments:*Thank you for your review and comments.
*Date Feedback Submitted:*3/10/2010

- No review submitted from the Federal Highway Administration

Social

Coordinator Summary

2 Summary Degree of Effect

Social Summary Degree of Effect: Minimal

Reviewed By:
FDOT District 5 (3/10/2010)
Comments:
Three agencies provided comments on this issue and assigned degrees of effect ranging from enhanced to minimal. We believe the social impacts of this project will be minimal, given the enhancement to mobility as discussed under that issue. We are assigning a Minimal degree of effect.

ETAT Reviews for Social

2 ETAT Review by Madolyn Dominy, US Environmental Protection Agency (01/13/2010)
Social Effect: Minimal

Coordination Document: No Selection

Dispute Information:N/A

Identified Resources and Level of Importance:
Resources: Social impacts such as residential populations, commuter populations, residential communities, minority or low-income populations, disadvantaged populations, archeological and historic areas or structures, etc.

Level of Importance: These resources are of a high level of importance. Impacts to these types of resources, both positive and negative, should be evaluated and documented in the PD&E phase of the project.

Comments on Effects to Resources:
According to the project description, the purpose of this project is to provide a more direct connection between Melbourne International Airport and I-95, and to address projected deficiencies at the existing I-95 interchanges with US 192 and Eau Gallie Boulevard. If this connection is made in the Ellis Road location, Ellis Road will require improvements to accommodate this new connection.

Future traffic growth related to Melbourne International Airport (MLB) activity and economic development surrounding the airport is forecast to push the exiting Interstate 95 (I-95) interchanges at US 192 and Eau Gallie Boulevard to failing levels of service. An additional access from I-95 is needed to address this capacity deficiency and provide a more direct connection to the Melbourne International Airport. If this connection is made in the Ellis Road location, Ellis Road will require improvements to accommodate this new connection.

I-95 is not only a key national south-north connector but also a corner stone of the Florida Strategic Intermodal System (SIS). It links major activity centers with other modes of transportation like airports, bus hubs, seaports, spaceports, and train stations. While I-95 does not directly connect some of these hubs, access to the interstate is provided via interchanges on SIS connectors. These facilities can be state or local roads. Currently, the emerging SIS hubs at MLB and Melbourne Greyhound Bus Terminal are being connected to the SIS network via the US 192 interchange, US 192 to Airport Boulevard to NASA Boulevard and the airport loop road. The general aviation service is connected via the Eau Gallie Boulevard interchange, Eau Gallie Boulevard to Sarno Road to Apollo Boulevard. Both US 192 and Eau Gallie Boulevard are part of the Florida Hurricane Evacuation network and connect the eastern Florida shore to the mainland. US 192, also known as Space Coast Parkway is the most southern Brevard County causeway over the Indian River and the last for over 25 miles. The closest causeway to the south is in Indian River County near Wabasso.

The dual function performed by US 192 signifies its importance in the local and regional travel patterns. Traffic studies prepared by the FDOT and local authorities show that future traffic volumes on US 192 will exceed the standard level of service (LOS) volumes due to the local reliance on this facility for access to I-95. A new interchange connecting MLB directly to I-95 with associated improvements to Ellis Road would assume the SIS connector role from US 192 and disperse the local access to I-95 between multiple facilities. MLB is an important transportation mode hub but also a major employment area for Melbourne and Palm Bay.

EPA is assigning a minimal degree of effect to this issue. There will be social benefits resulting from the project due to congestion relief and an improvement in mobility with the new interchange project and resulting improvements to Ellis Road. There are social issues to be considered such as a disruption in traffic patterns (lane reductions, detours, etc) during the project construction, an increase in noise to any surrounding businesses and residents, and increase in traffic volumes as a

result of the project. These issues should be evaluated and addressed during the PD&E phase of the project. Project impacts to sensitive populations such as minority, elderly, or disabled populations should be avoided or minimized to the best extent practicable. EPA recommends that public involvement activities be conducted throughout the PD&E phase of the project.

FDOT District 5 Feedback to US Environmental Protection Agency's Review
*Comments:*Thank you for your review and comments. We agree that improvements to Ellis Road will cause disruptions you have mentioned during construction. These issues will be evaluated during the PD&E phase and subsequent design phase. The study phase will also evaluate noise impacts associated with the proposed improvements and will determine if any receptor sites would qualify for noise walls. Public involvement activities will be conducted during subsequent phases of this project.
*Date Feedback Submitted:*3/10/2010

ETAT Review by Susan Ditta, Space Coast TPO (01/21/2010)
Social Effect: Enhanced

Coordination Document: No Selection

Dispute Information:N/A

Identified Resources and Level of Importance:
This project will increase ease of travel for varying purposes (i.e. work commute, shopping), as such the social impact (i.e. quality of life) is anticipated to be enhanced. The current land use is mixed: residential, commercial, office, agricultural and conservation. The Space Coast TPO, Brevard County, the cities of Palm Bay, Melbourne and West Melbourne, as well as the Melbourne Airport Authority and many other private concerns have been working on the development of the St. Johns Heritage (also known as the Palm Bay) Parkway for over a decade. The proposed Parkway will provide numerous transportation benefits for the South Brevard County and North Indian River County areas. Item #11460, the Ellis Road Interchange, is an integral component of the Parkway project.

Comments on Effects to Resources:
This proposed Interchange will provide direct access to the airport and improve traffic flow by relieving traffic congestion at the adjacent existing interchanges (US 192 and Eau Gallie Boulevard). MLB's industrial park holds a potential growth of over 300%. This potential increased emplohyment could increase population in neighboring communities.

Additional Comments (optional):
The Federal Highway Administration has approved an Interchange Justification Report (04/09)which serves to approve the Interchange from an operational standpoint. Ellis Road will require improvements to accommodate this new Interchange. As noted in the IJR, a public involvement plan will be developed during the PD&E study for this project. Public input will be obtained from interested groups including homeowners, businesses, agricultural interests, etc.

FDOT District 5 Feedback to Space Coast TPO's Review
*Comments:*Thank you for your review and comments.
*Date Feedback Submitted:*3/10/2010

0 ETAT Review by Gary Donaldson, FL Department of Community Affairs (02/10/2010)

Social Effect: None

Coordination Document: No Selection

Dispute Information:N/A

Identified Resources and Level of Importance:
Social impacts cannot currently be determined for this project.

Comments on Effects to Resources:
see above

FDOT District 5 Feedback to FL Department of Community Affairs's Review
*Comments:*Thank you.
*Date Feedback Submitted:*3/10/2010

- No review submitted from the Federal Highway Administration

ETAT Reviews: Secondary and Cumulative

Secondary and Cumulative Effects

Coordinator Summary

2 Summary Degree of Effect

Secondary and Cumulative Effects Summary Degree of Effect: Minimal

Reviewed By:
FDOT District 5 (3/10/2010)
Comments:
No reviews were received for this issue. Since this project is consistent with the Comprehensive Plan and Future Land Use Plan we believe the secondary and cumulative effects to be minimal. We are assigning a Minimal degree of effect for this issue.

ETAT Reviews for Secondary and Cumulative Effects

No reviews found for the Secondary and Cumulative Effects Issue.

General Project Commitments

Date	Description
4/13/2010	Coordination or consultation will be required during the PD&E or design phase with the following entities for issues indicated: FDEP, City of Melbourne, Melbourne Internation Airport about Melbourne Brownfield. SJRWMD impaired waterbody criteria for discharges to Cranes Creek. State Historic Preservation Officer for CRAS. US Fish and Wildlife Service consultation for Audubon's crested caracara, wood stork core foraging area, Florida scrub jay, red cockaded woodpecker and snail kite.
4/13/2010	

Permits

Permit Name	Type	Review Org	Review Date
Construction Generic Permit	Stormwater	FDOT District 5	03/10/10
Department of the Army Corps of Engineers State Programmatic General Permit	USACE	FDOT District 5	03/10/10
Section 404 Water Quality Certification	USACE	FDOT District 5	03/10/10
Environmental Resource Permit	State	FDOT District 5	03/10/10

Technical Studies

Technical Study Name	Type	Review Org	Review Date
Location Hydraulics Report	ENGINEERING	FDOT District 5	03/10/10
Drainage/Pond Siting Report	ENGINEERING	FDOT District 5	03/10/10
Typical Section Package	ENGINEERING	FDOT District 5	03/10/10
Public Involvement Plan	ENVIRONMENTAL	FDOT District 5	03/10/10
Environmental Assessment	ENVIRONMENTAL	FDOT District 5	04/13/10
Noise Study Report	ENVIRONMENTAL	FDOT District 5	03/10/10
Air Quality Report	ENVIRONMENTAL	FDOT District 5	03/10/10
Contamination Screening Evaluation Report	ENVIRONMENTAL	FDOT District 5	03/10/10
Wetlands Evaluation Report	ENVIRONMENTAL	FDOT District 5	04/13/10
Cultural Resource Assessment	ENVIRONMENTAL	FDOT District 5	03/10/10
Access Management Report	ENGINEERING	FDOT District 5	03/10/10
Stormwater Analysis	ENGINEERING	FDOT District 5	04/13/10
Project Development Summary Report (PDSR)	ENGINEERING	FDOT District 5	03/10/10

Class of Action

Class of Action	Other Actions
Categorical Exclusion	None
Lead Agency	**Cooperating Agency/Agencies**
Federal Highway Administration	

Signatures

	Name	Review Status	Date
Lead Agency ETAT Member	Cathy Kendall (Federal Highway Administration)	ACCEPTED	5/6/2010
Comments	Please ensure that assumptions and traffic projections used in the PD&E are consistent with those approved in the IJR.		
	Name	**Review Status**	**Date**
FDOT ETDM Coordinator	Richard Fowler	ACCEPTED	4/13/2010

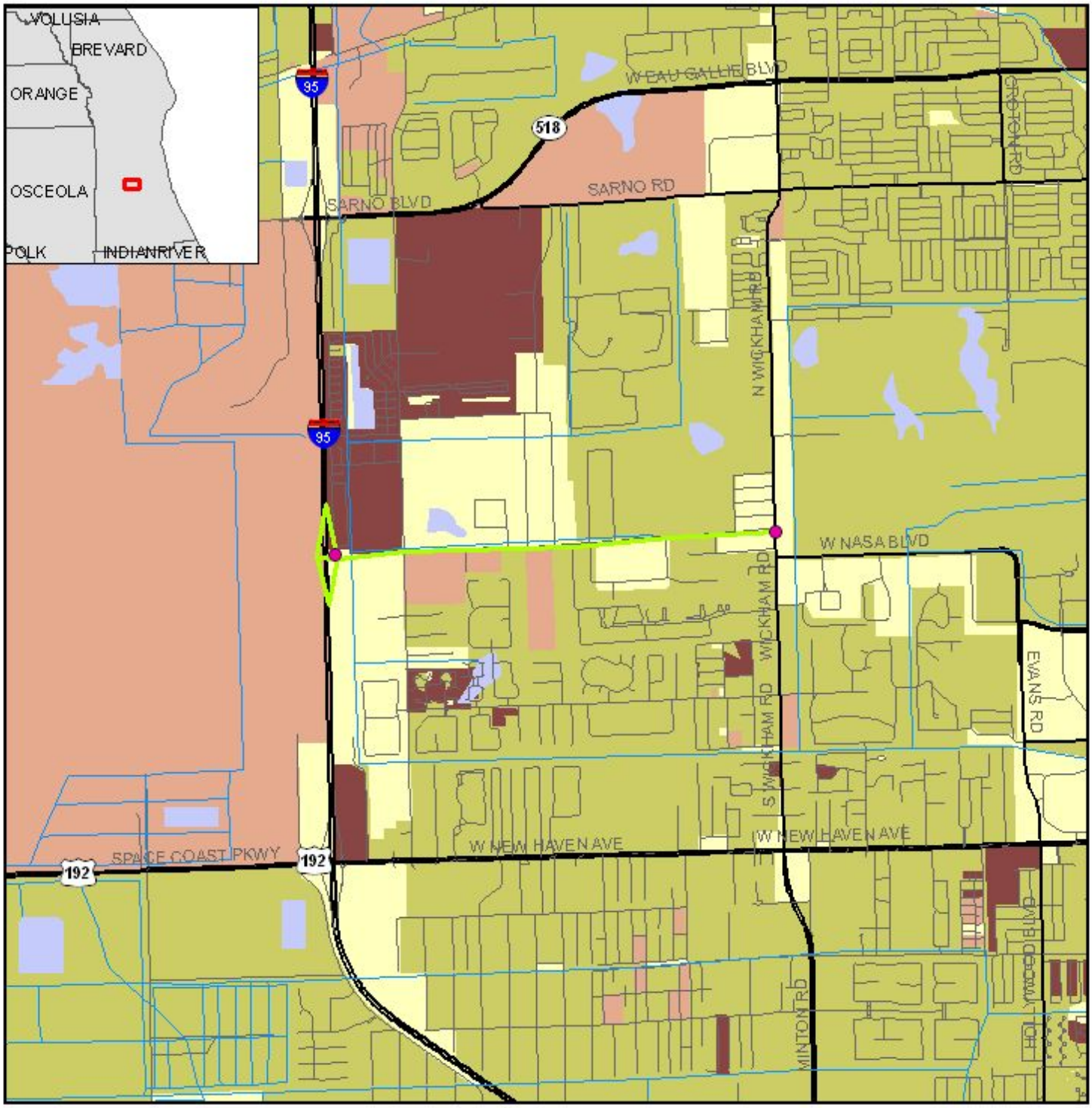
	(FDOT District 5)		
Comments	Intend to conduct a Type II Categorical Exclusion.		

Dispute Resolution Activity Log
No Dispute Actions Found.

Hardcopy Maps: Alternative #1

11460 I-95 and Ellis Road Interchange, Alternative #1

to



0 2 Miles

Population Age Distribution Map

Median Age

0 - 18 | 18 - 30 | 30 - 65 | > 65

- ETDM Alternative Point
- ETDM Alternative Terminus
- ETDM Alternative Segment
- ETDM Alternative Polygon
- Major Road
- Local Road or Trail
- Railroad
- River, Stream or Canal
- Water Body

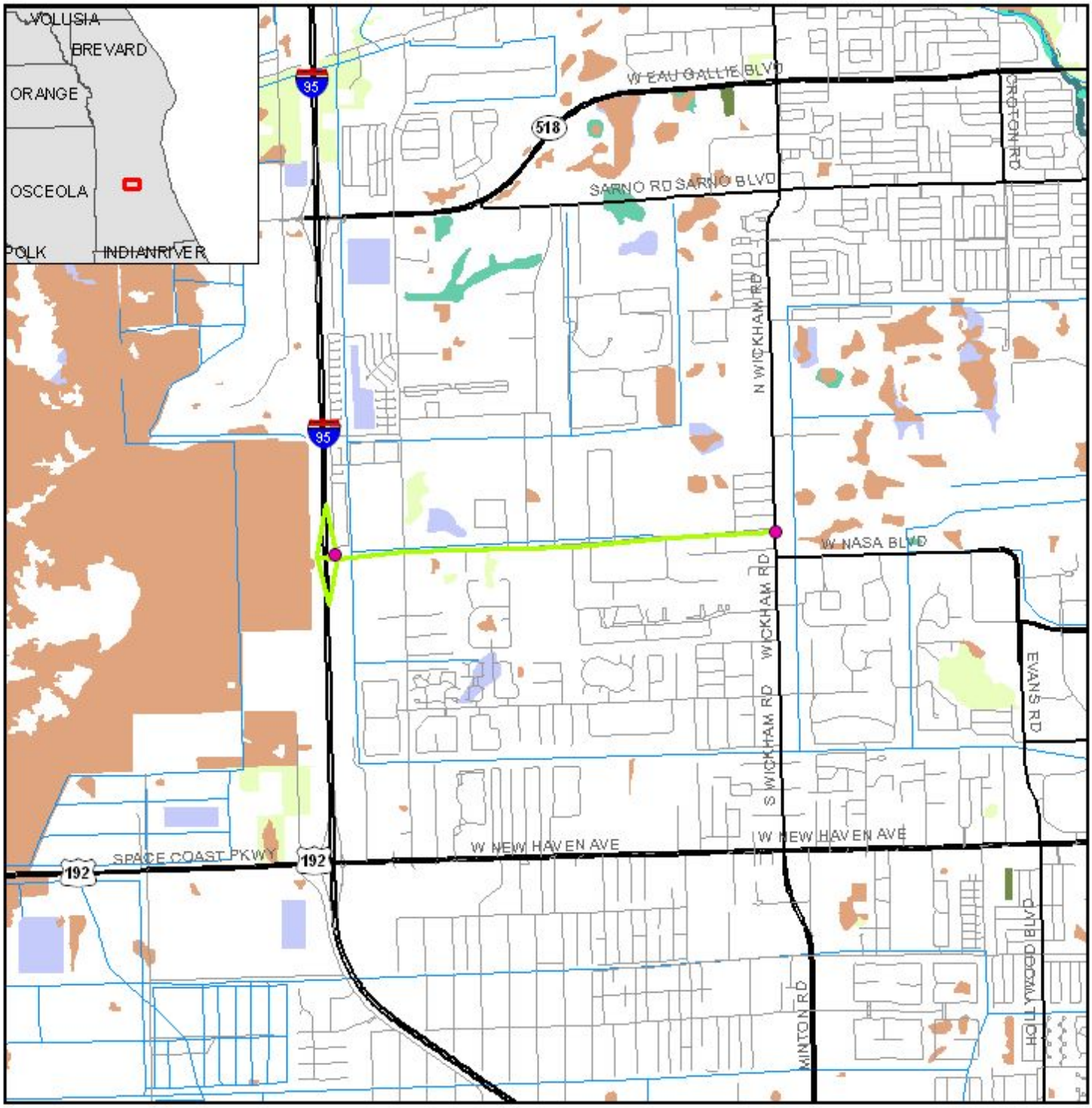
Data Sources:
US Geological Survey
FL Department of Transportation
Geographic Data Technology, Inc.
US Census Bureau

Printed on: 6/01/2011

Map Generated on: 12/4/2009

11460 I-95 and Ellis Road Interchange, Alternative #1

to



0 0.7 Miles

Coastal and Marine Resource Map

- ETDM Alternative Point
- ETDM Alternative Terminus
- ETDM Alternative Segment
- ETDM Alternative Polygon
- Major Road
- Local Road or Trail
- River, Stream or Canal
- Water Body
- Aquatic Preserve
- Navigable Water Way
- Continuous Seagrass
- Discontinuous Seagrass
- Coastal Barrier Resource Area
- Swamp or Marsh
- Exposed Rocky Platform
- Sand Beach
- Gravel Beach/Riprap
- Exposed Tidal Flat
- Sheltered Tidal Flat
- Mixed Sand And Gravel Beach
- Sheltered Rock/Seawall/Vegetated
- Exposed Vertical Rocky Shore/Seawall

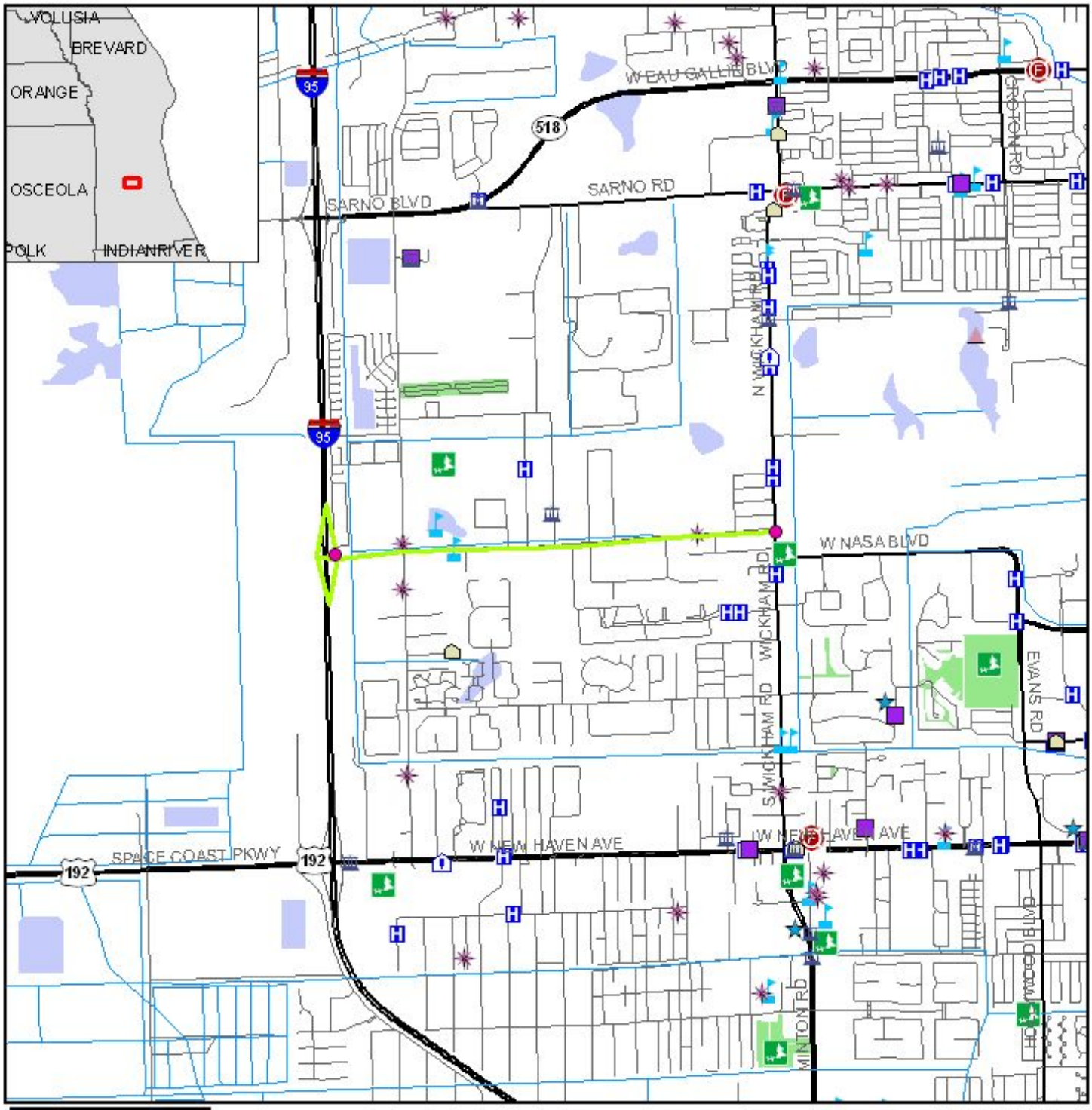
Data Sources: Geographic Data Technology, Inc.; US Geological Survey; Florida Marine Research Institute; Florida Department of Transportation; Florida Department of Environmental Protection; National Oceanic and Atmospheric Association; Florida Water Management Districts

Printed on: 6/01/2011

Map Generated on: 12/4/2009

11460 I-95 and Ellis Road Interchange, Alternative #1

to



0 0.9 Miles

Community Facilities and Services Map

- ETDM Alternative Point
- ETDM Alternative Terminus
- ETDM Alternative Segment
- ETDM Alternative Polygon
- Government
- Civic Center
- Cemetery
- Social Service
- Community Center
- Law Enforcement
- Place of Worship
- Cultural Center
- Fire Station
- Health Care
- School
- Park
- River, Stream or Canal
- Recreational Trail
- Major Road
- Local Road or Trail
- Railroad
- Community Boundary
- Water Body
- Conservation or Recreation Area

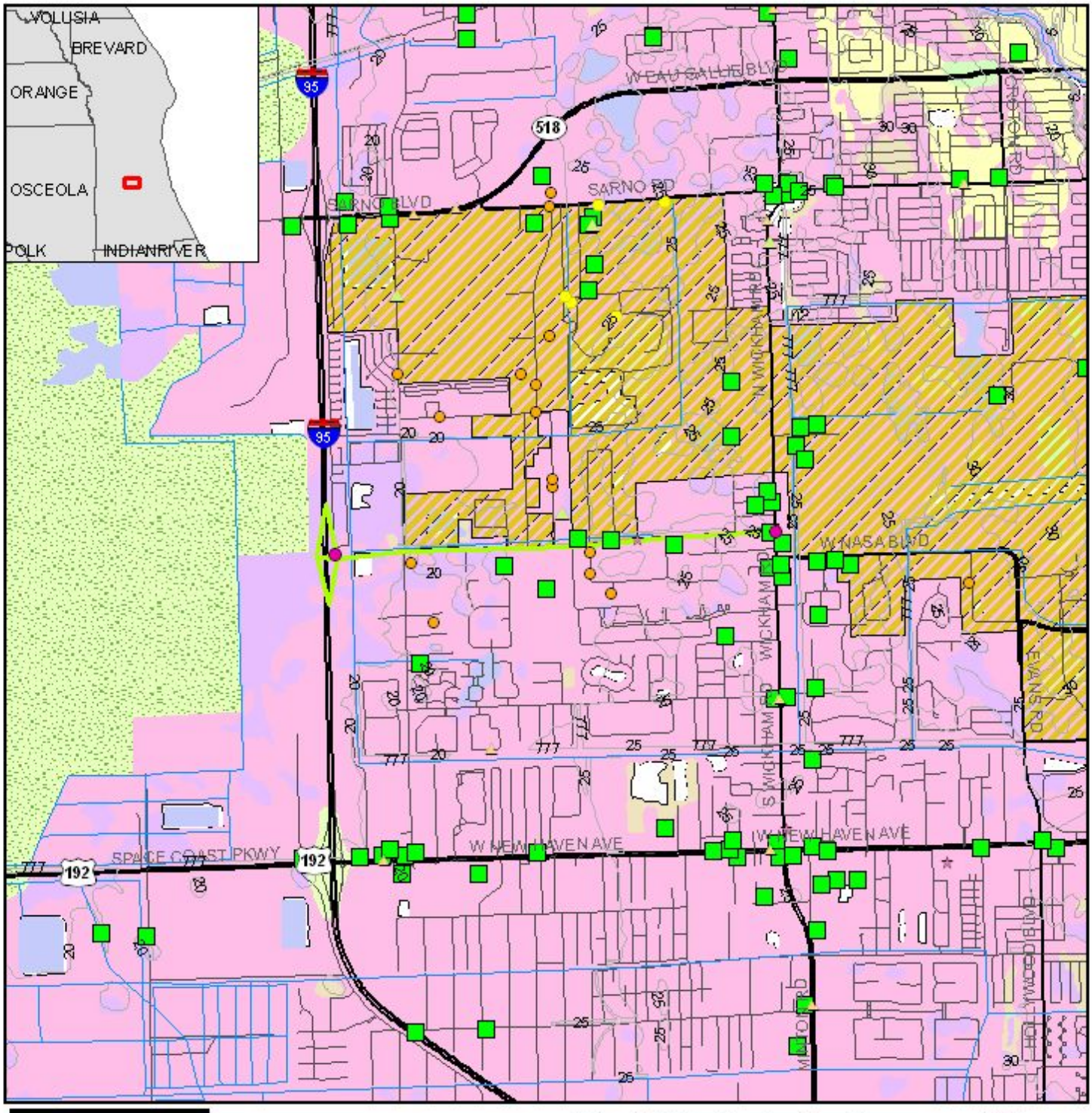
Data Sources:
US Geological Survey; FL Department of Transportation; Geographic Data Technology, Inc.; FL Property Appraisers; FL Natural Areas Inventory

Printed on: 6/01/2011

Map Generated on: 12/4/2009

11460 I-95 and Ellis Road Interchange, Alternative #1

to



0 0.9 Miles

Potential Contamination Assessment Map

- ETDM Alternative Point
- ETDM Alternative Terminus
- ETDM Alternative Segment
- ETDM Alternative Polygon
- Major Road
- Local Road or Trail
- Railroad
- River, Stream or Canal
- Toxic Release Inventory
- Dry Cleaning Facility
- Gasoline Service Station
- Solid Waste Facility
- NPL Remediation Site
- Hazardous Material Site
- Power Plant
- Superfund Site
- Nuclear Site
- FDEP Tanks
- Brownfield Area
- 5 FT Contour
- Water Body
- Swamp/Marsh

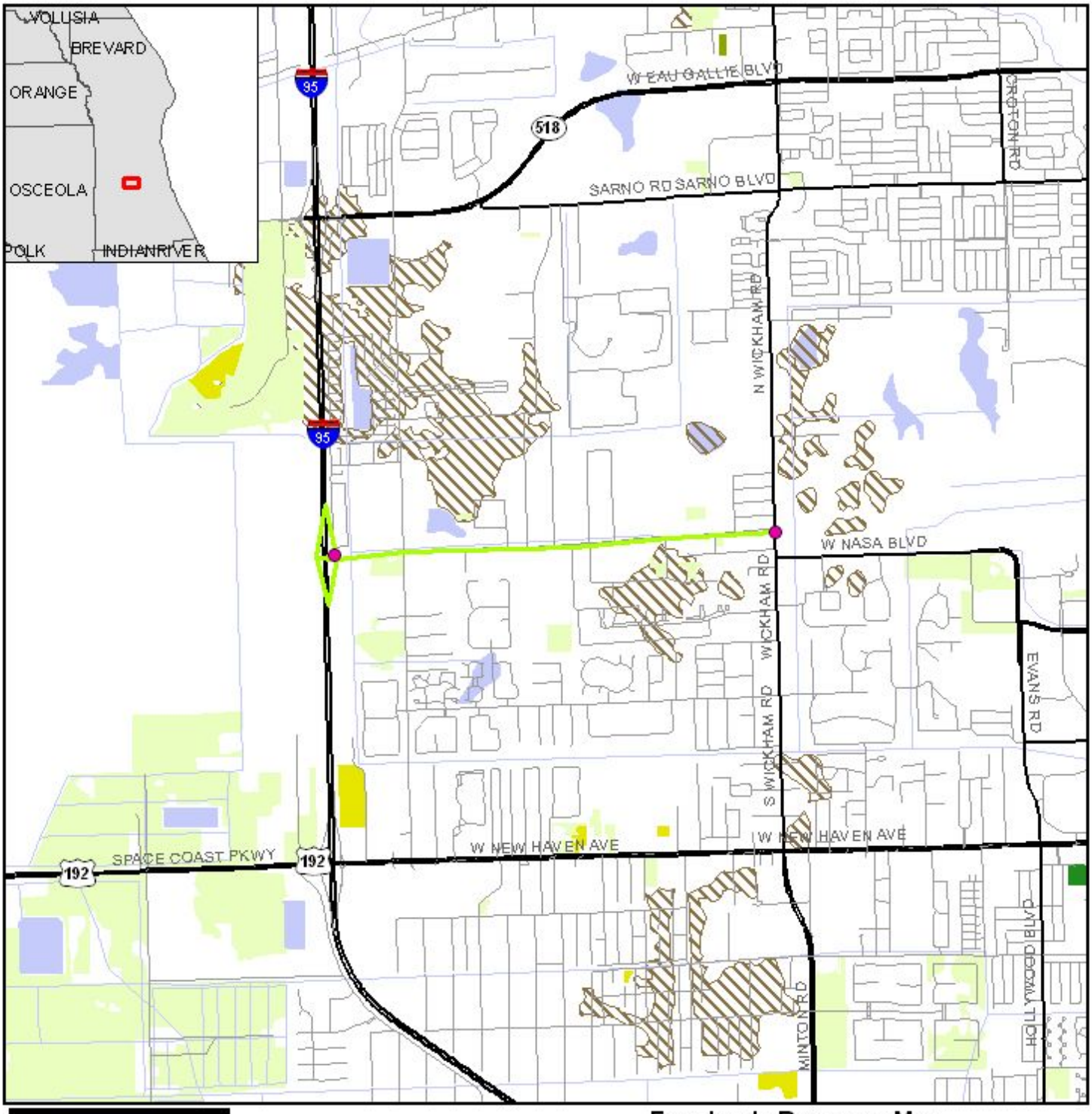
Data Sources:
Geographic Data Technology, Inc.; US Geological Survey; FL Department of Transportation; FL Department of Environmental Protection; FL Water Management Districts; US Environmental Protection Agency; Natural Resource Conservation Service

Printed on: 6/01/2011

Map Generated on: 12/4/2009

11460 I-95 and Ellis Road Interchange, Alternative #1

to



0 1 Miles

Farmlands Resource Map

- ETDM Alternative Point
- ETDM Alternative Terminus
- ETDM Alternative Segment
- ETDM Alternative Polygon
- River, Stream or Canal
- Major Road
- Local Road or Trail
- Water Body
- Prime Farmland Soils
- Cropland/Pastureland
- Nurseries/Vineyards
- Specialty Farms
- Tree Crops
- Rural Open Lands

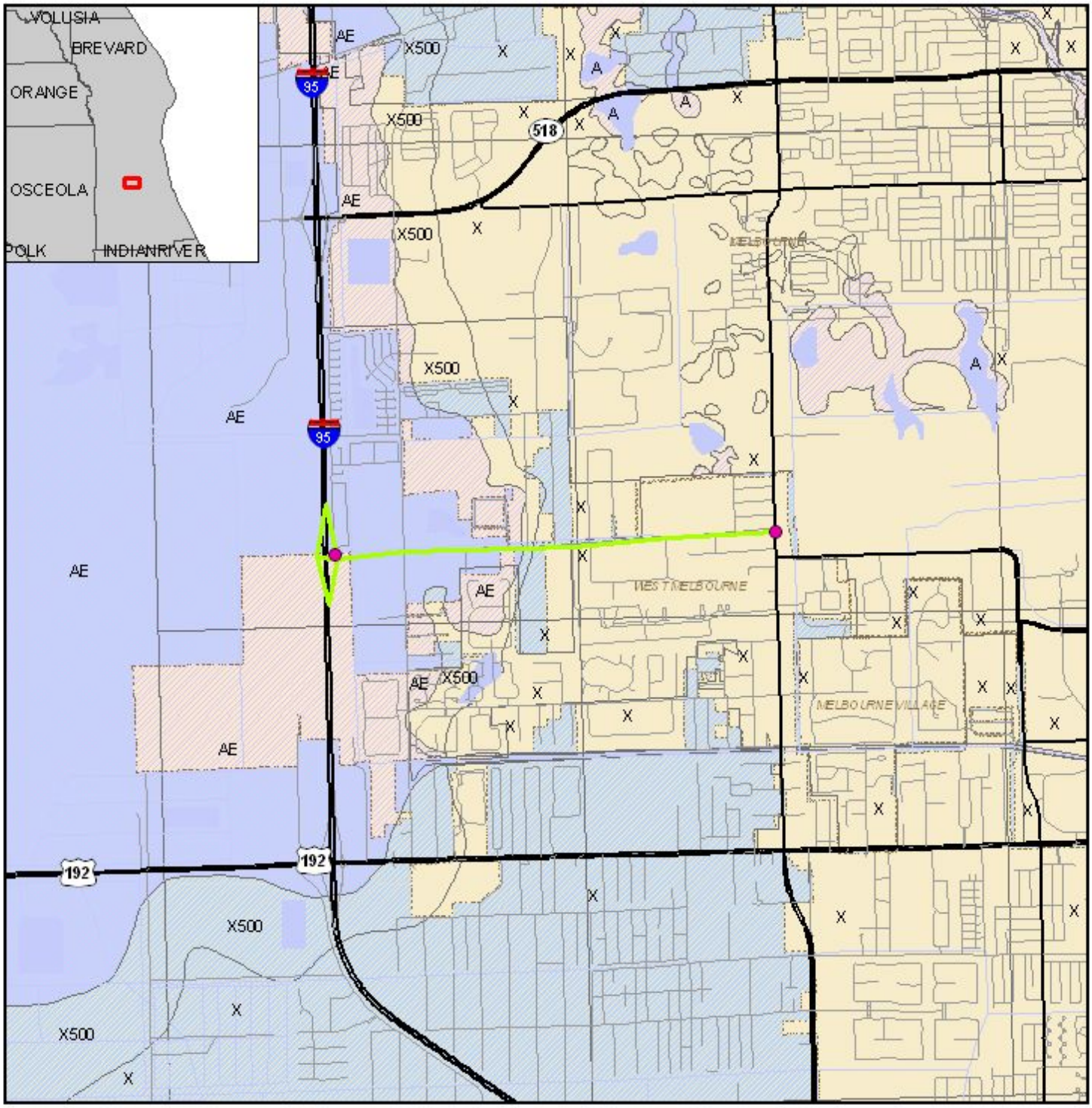
Data Sources: Geographic Data Technology, Inc., Florida Water Management Districts, US Geological Survey, Natural Resources Conservation Services

Printed on: 6/01/2011

Map Generated on: 12/4/2009

11460 I-95 and Ellis Road Interchange, Alternative #1

to



0 0.7 Miles

Floodplain Resource Map

ETDM Alternative Point
ETDM Alternative Terminus
ETDM Alternative Segment
ETDM Alternative Polygon
Major Road
Local Road or Trail
Railroad
River, Stream or Canal
Water Body
City Limits
County Boundaries
Inside Special Flood Hazard Area
Outside Special Flood Hazard Area

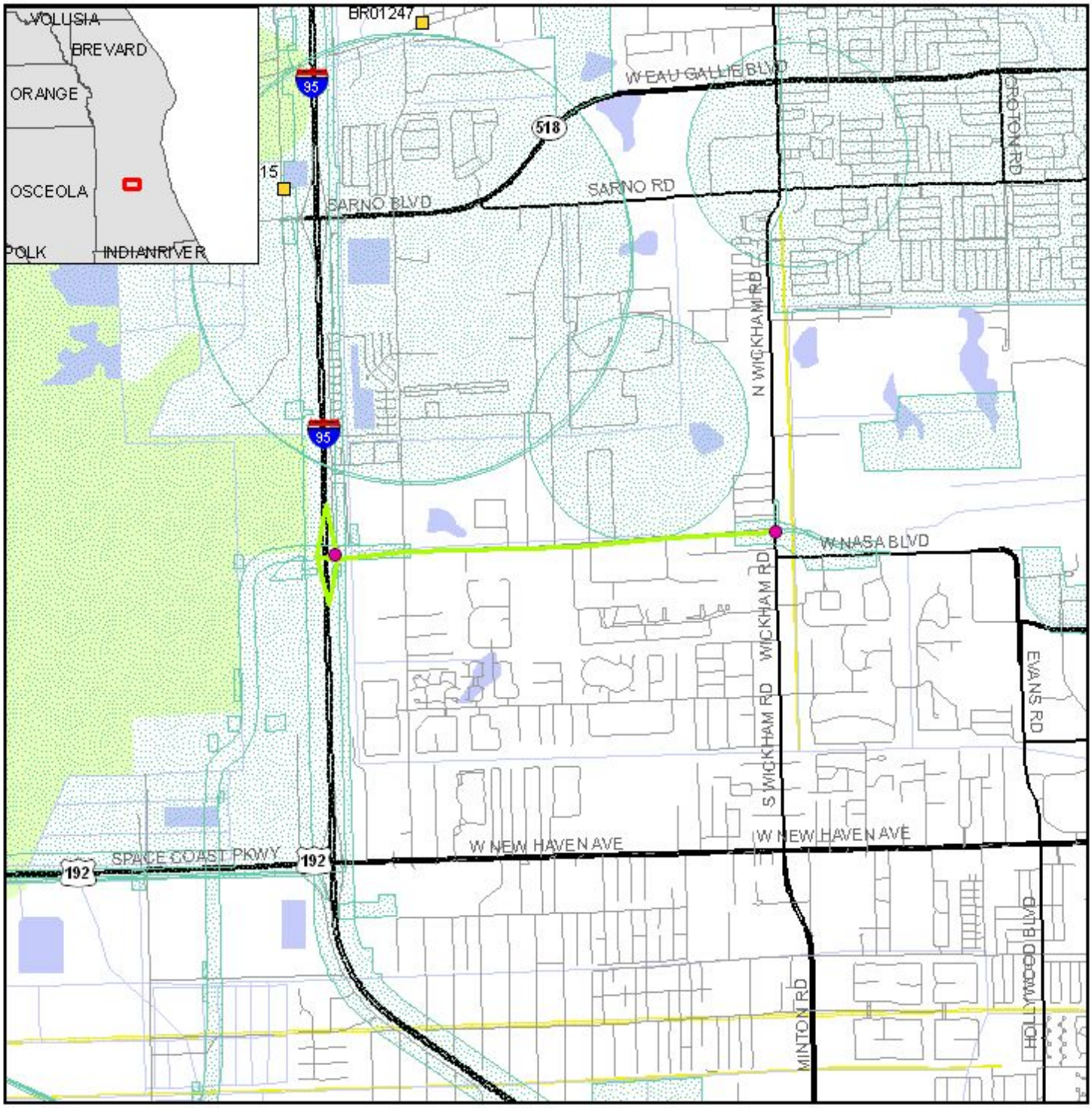
Data Sources:
Geographic Data Technology, Inc.
US Geological Survey
Federal Emergency Management Agency

Printed on: 6/01/2011

Map Generated on: 12/4/2009

11460 I-95 and Ellis Road Interchange, Alternative #1

to



0 0.9 Miles

Historic Resources Map

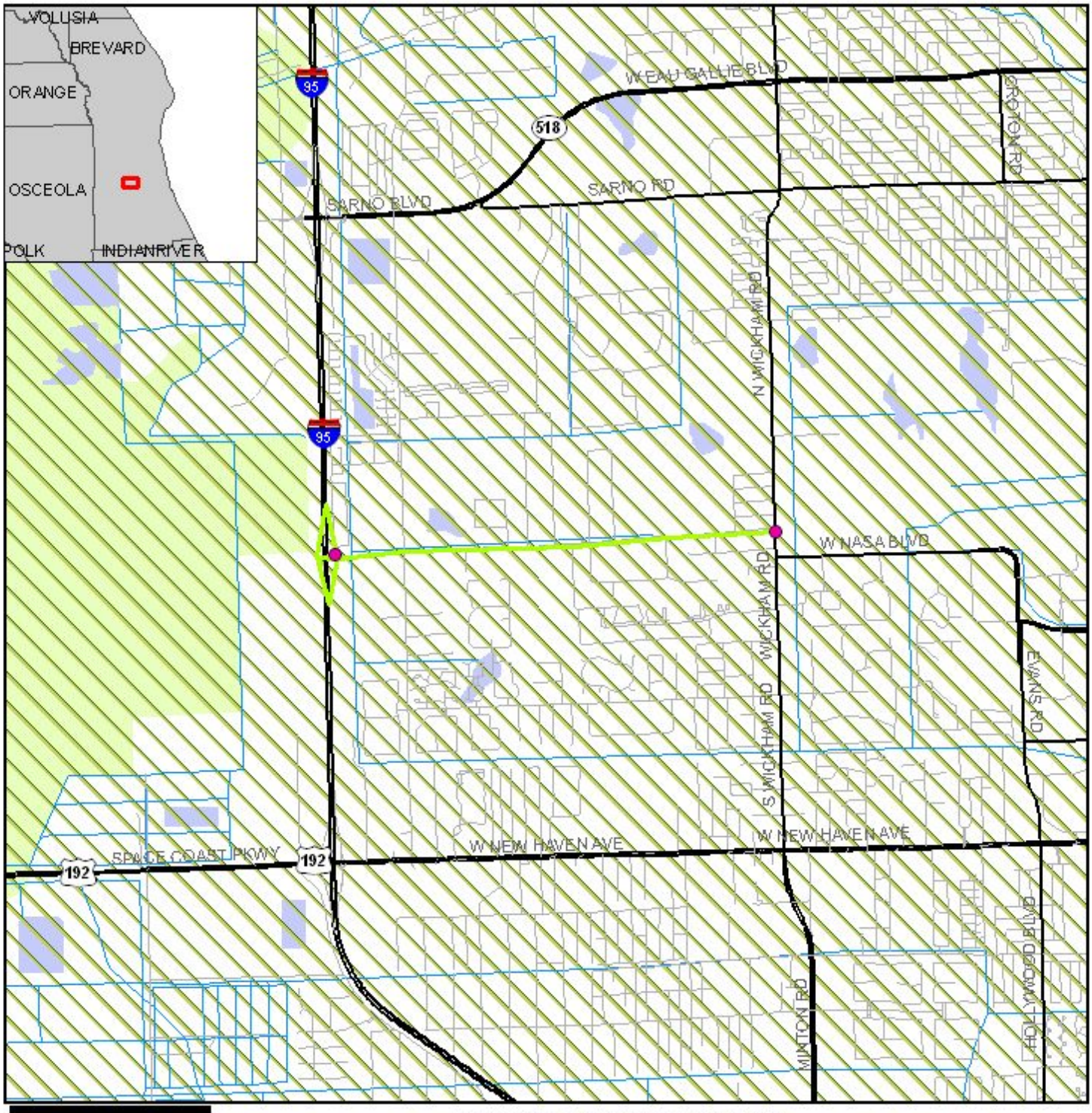
Data Sources:
Geographic Data Technology, Inc.
US Geological Survey
Florida Department of Transportation
Florida Department of State,
Bureau of Archaeological Research

- ETDM Alternative Point
- ETDM Alternative Terminus
- ETDM Alternative Segment
- ETDM Alternative Polygon
- River, Stream or Canal
- Water Body
- Swamp/Marsh
- Major Road
- Local Road or Trail
- Railroad
- Historic Structure
- Historic Cemetery
- Historic Bridge
- Historic Resource Group
- Cultural Resource Field Survey Area
- State Historic Highway

Note: Historic properties depicted on this map represent resources listed in the Florida Master Site File excluding archeological site locations, which, pursuant to Chapter 267.135, Florida Statutes, may be exempt from public record (Chapter 119.07, Florida Statutes). Absence of features on the map does not necessarily indicate an absence of resources in the project vicinity.

11460 I-95 and Ellis Road Interchange, Alternative #1

to



Hydrogeology Resource Map

ETDM Alternative Point
ETDM Alternative Terminus
ETDM Alternative Segment
ETDM Alternative Polygon
Major Road
Local Road or Trail
River, Stream or Canal
Other Water Body
Swamp/Marsh

Recharge Areas of the Floridan Aquifer
Discharge 1 TO 5
Discharge > 5
Disharge < 1
Recharge 1 TO 10
Recharge > 10
Recharge < 1

Geological Epoch
Eocene
Holocene
Miocene
Miocene/Pliocene
Oligocene
Oligocene/Miocene
Pleistocene
Pleistocene & Holocene
Pliocene
Pliocene/Pleistocene

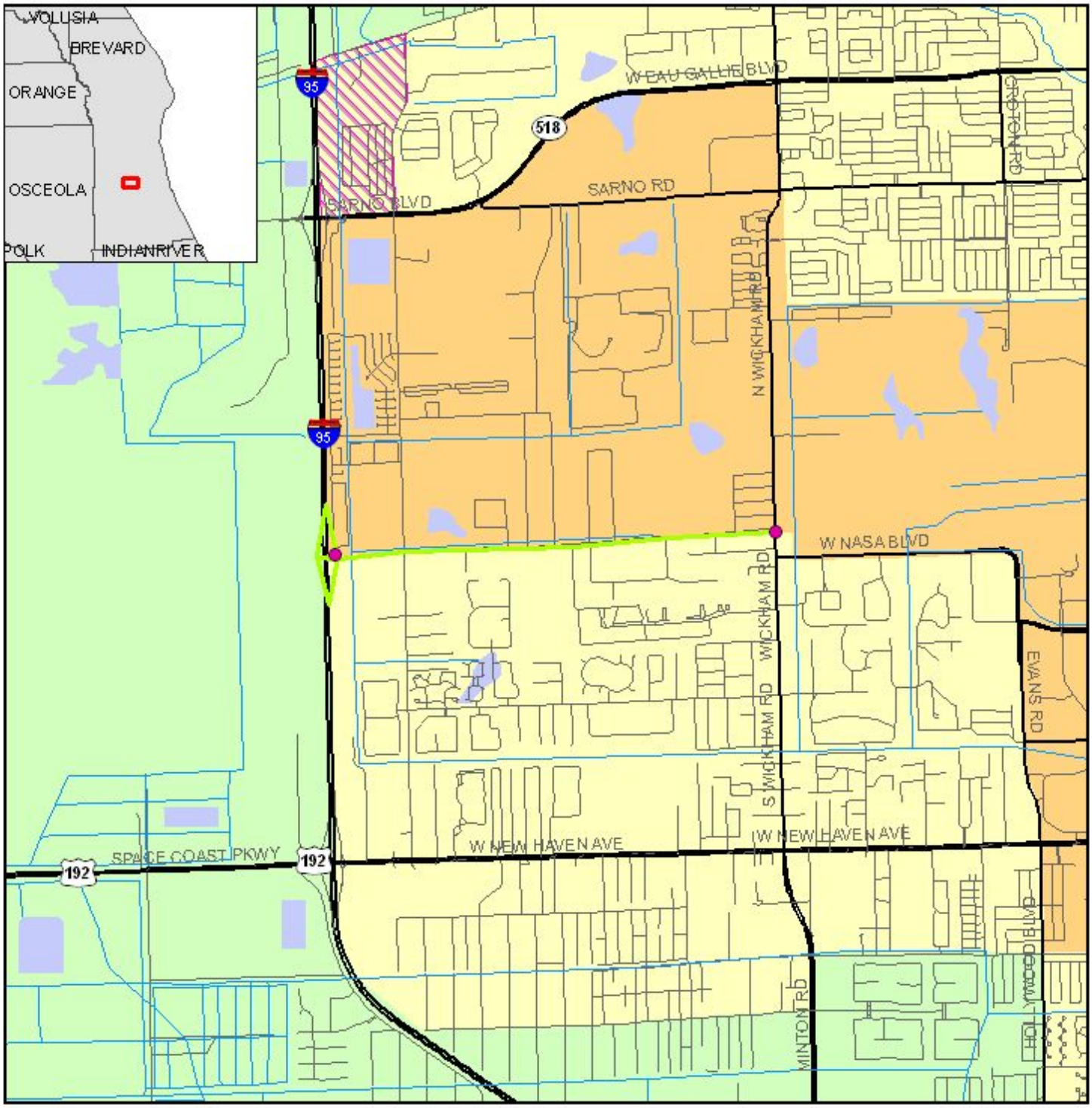
Data Sources: Geographic Data Technology, Inc.; US Geological Survey; Florida Department of Transportation; South West Florida Water Management District; Florida Geological Survey

Printed on: 6/01/2011

Map Generated on: 12/4/2009

11460 I-95 and Ellis Road Interchange, Alternative #1

to



0 0.9 Miles

Income Distribution Map

- ETDM Alternative Point
- ETDM Alternative Terminus
- ETDM Alternative Segment
- ETDM Alternative Polygon
- Major Road
- Local Road or Trail
- Railroad
- River, Stream or Canal
- > 20% Below Poverty
- Water Body

Median Household Income

0 - 10000 | 10001 - 29999 | 30000 - 49999 | 50000 - 79999 | 80000 - 125000 | > 125000

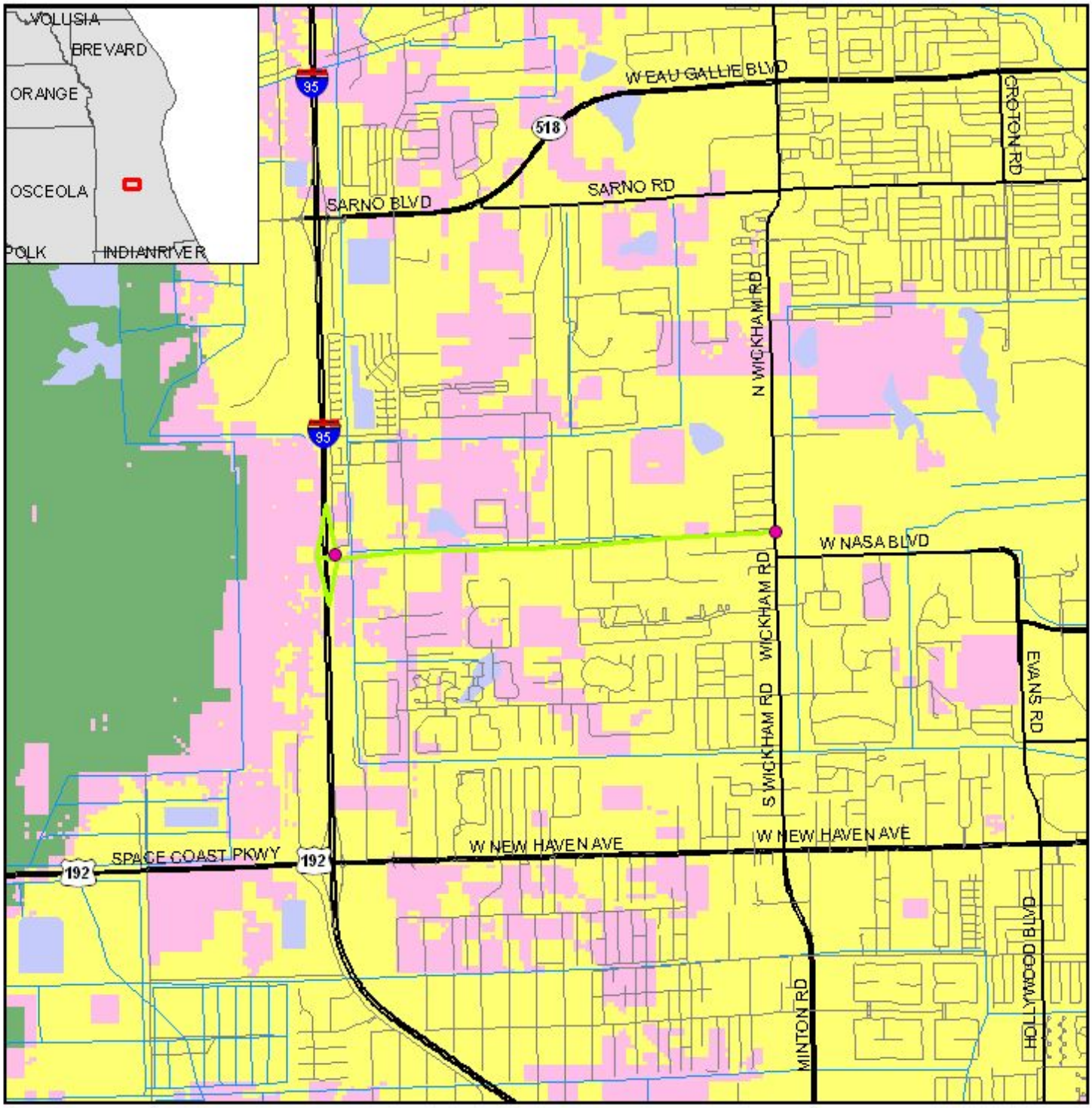
Data Sources:
US Geological Survey
FL Department of Transportation
Geographic Data Technology, Inc.
US Census Bureau

Printed on: 6/01/2011

Map Generated on: 12/4/2009

11460 I-95 and Ellis Road Interchange, Alternative #1

to



0 1 Miles

Integrated Wildlife Habitat Ranking System Map

- ETDM Alternative Point
- ETDM Alternative Terminus
- ETDM Alternative Segment
- ETDM Alternative Polygon
- Major Road
- Local Road or Trail
- Railroad
- River, Stream or Canal
- Water Body
- Low Habitat Quality
- Medium Habitat Quality
- High Habitat Quality

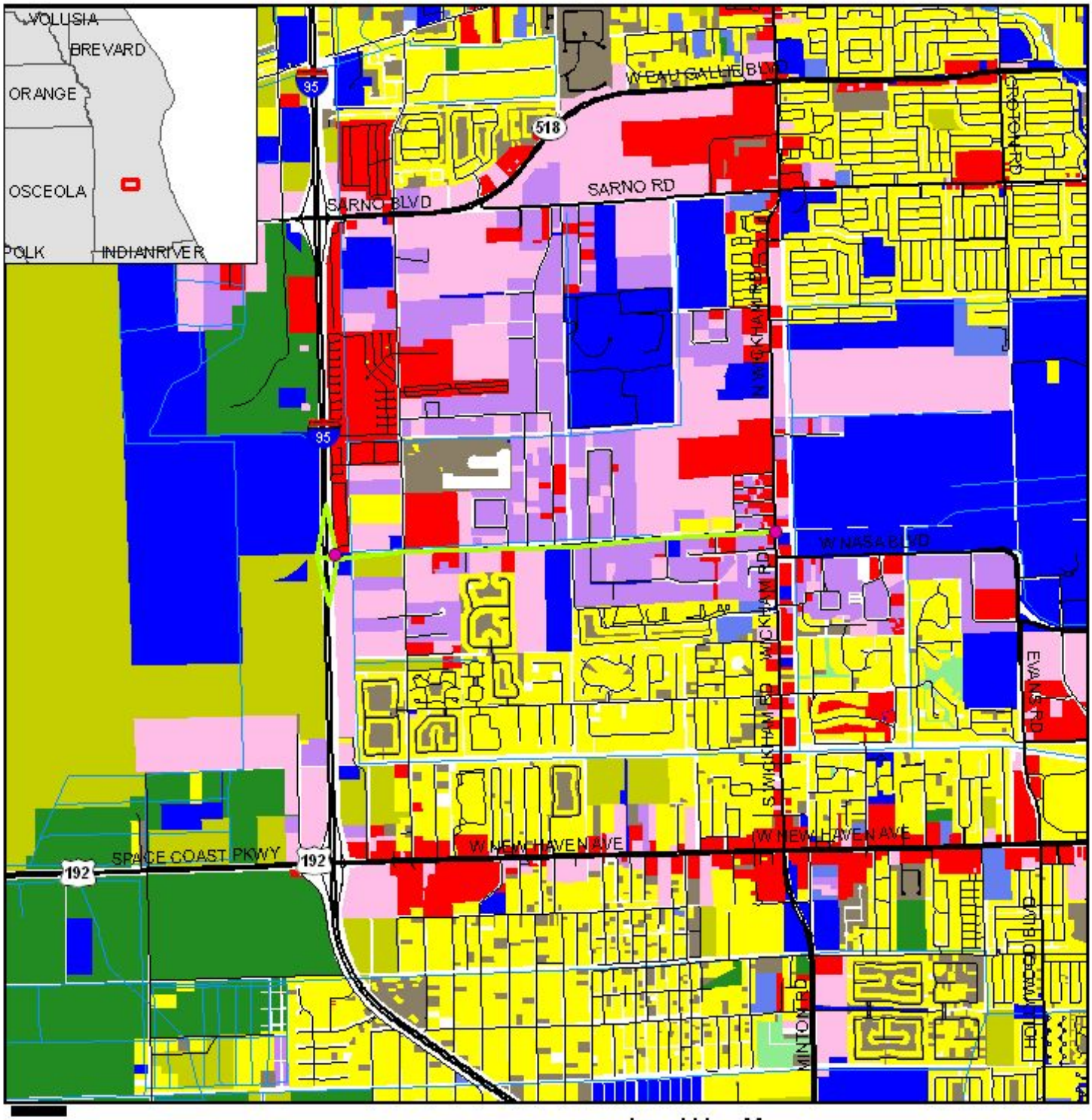
Data Sources:
Geographic Data Technology, Inc.
US Geological Survey
Florida Department of Transportation
Florida Fish & Wildlife Conservation Commission

Printed on: 6/01/2011

Map Generated on: 12/4/2009

11460 I-95 and Ellis Road Interchange, Alternative #1

to



0 0.25 Miles

Land Use Map

- ETDM Alternative Point
- ETDM Alternative Terminus
- ETDM Alternative Segment
- ETDM Alternative Polygon
- Major Road
- Local Road or Trail
- Railroad
- River, Stream or Canal
- Agricultural
- Industrial
- Institutional
- Mining
- Open (Not Agricultural)
- Other
- Public
- Right-of-Way
- Recreational
- Residential
- Retail/Office
- Vacant (Residential)
- Vacant (Nonresidential)
- Water
- No Data

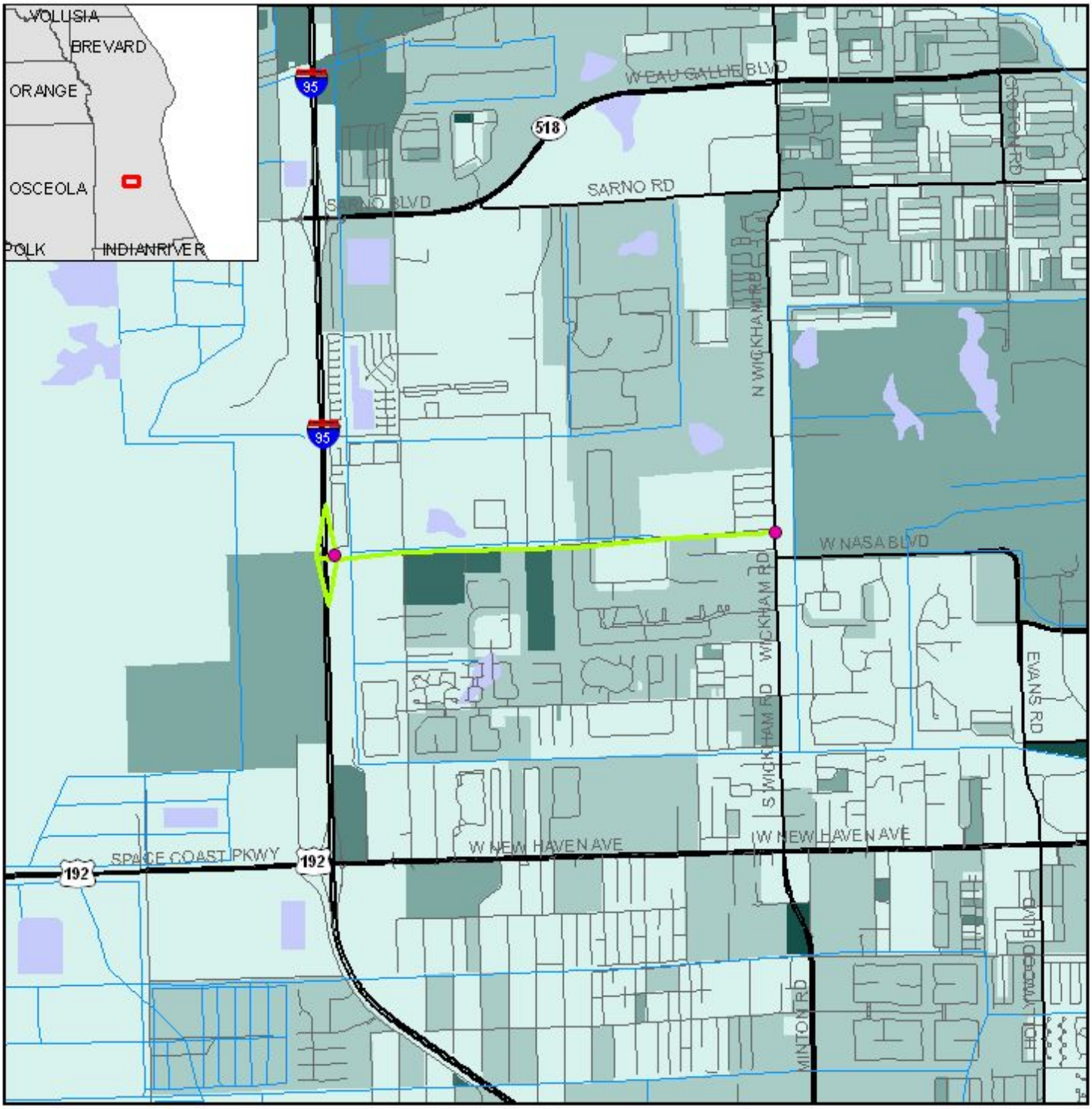
Data Sources:
Geographic Data Technology, Inc.
US Geological Survey
Florida Department of Revenue
Florida Department of Transportation
Florida County Property Appraiser Offices

Printed on: 6/01/2011

Map Generated on: 12/4/2009

11460 I-95 and Ellis Road Interchange, Alternative #1

to



0 0.25 Miles

Minority Population Distribution Map

- ETDM Alternative Point
- ETDM Alternative Terminus
- ETDM Alternative Segment
- ETDM Alternative Polygon
- Major Road
- Local Road or Trail
- Railroad
- River, Stream or Canal
- Water Body

Percent Minority Population

0 - 6 | 7 - 20 | 21 - 38 | 39 - 60 | 61 - 85 | 86 - 100

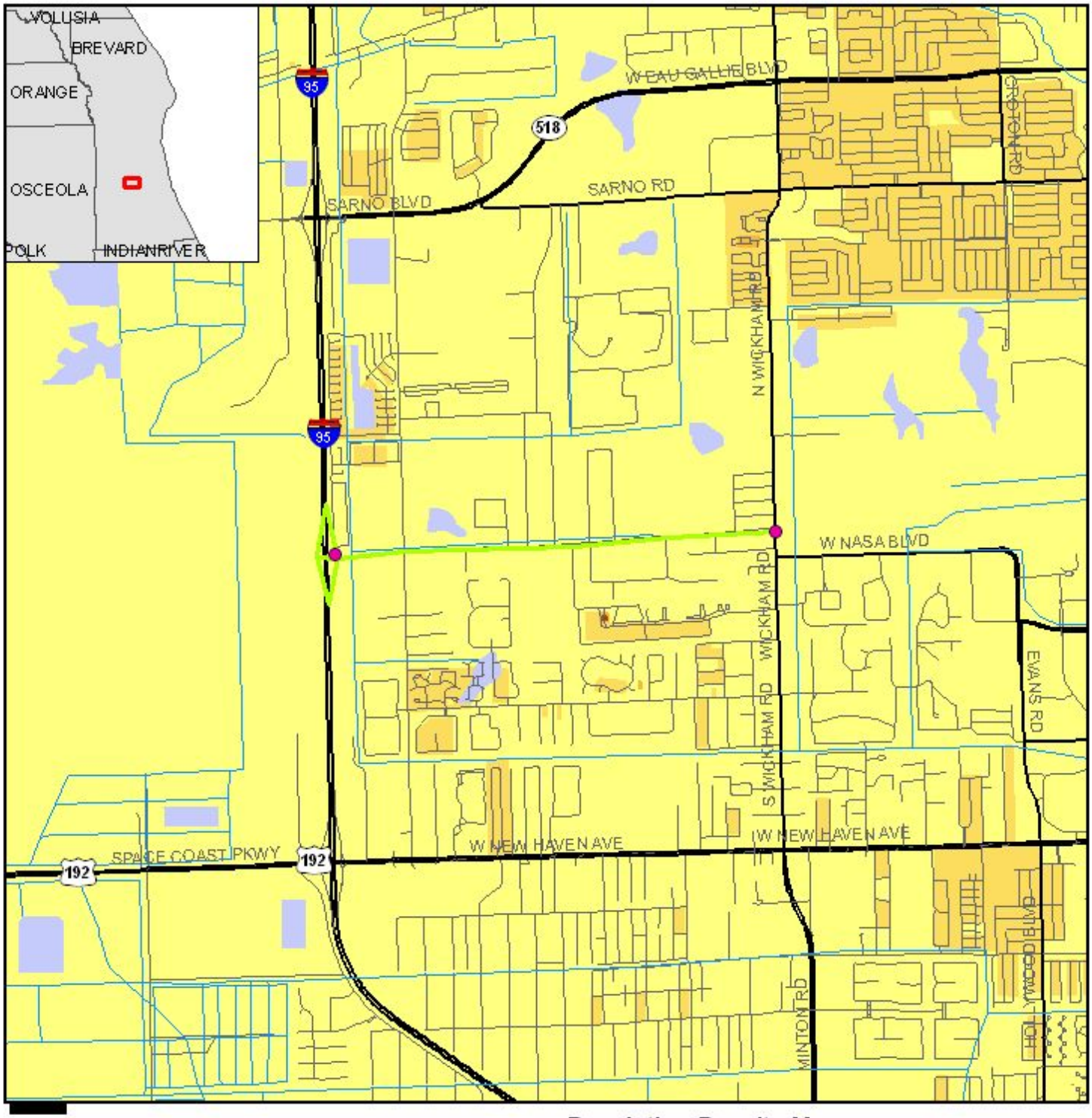
Data Sources:
US Geological Survey
FL Department of Transportation
Geographic Data Technology, Inc.
US Census Bureau

Printed on: 6/01/2011

Map Generated on: 12/4/2009

11460 I-95 and Ellis Road Interchange, Alternative #1

to



Population Density Map

ETDM Alternative Point
ETDM Alternative Terminus
ETDM Alternative Segment
ETDM Alternative Polygon

Major Road
Local Road or Trail
Railroad
River, Stream or Canal
Water Body

Population per Acre

0 - 4.9
5 - 29.9
30 - 99.9
100 - 349.9
350 - 800
> 800

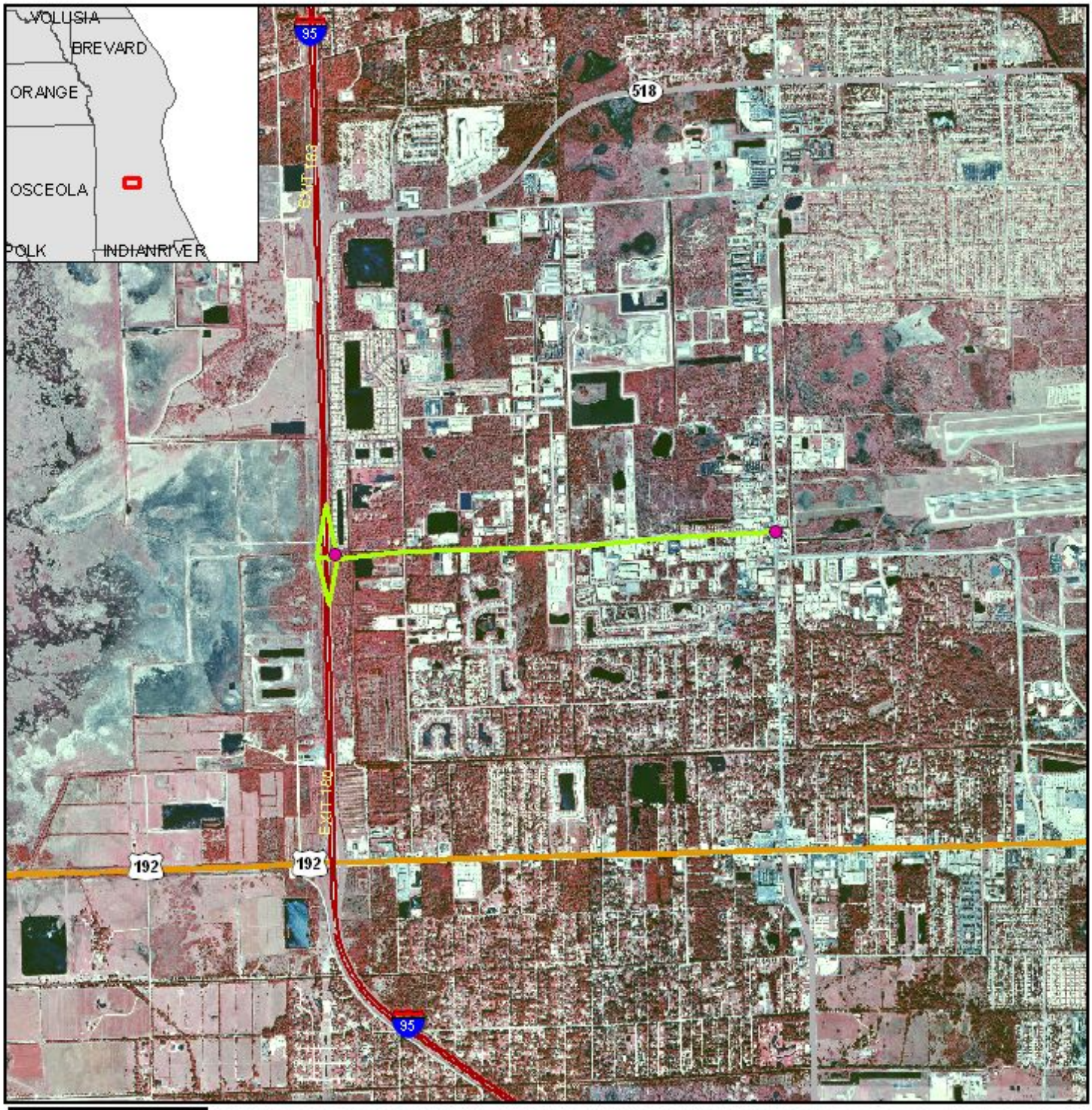
Data Sources:
US Geological Survey
FL Department of Transportation
Geographic Data Technology, Inc.
US Census Bureau

Printed on: 6/01/2011

Map Generated on: 12/4/2009

11460 I-95 and Ellis Road Interchange, Alternative #1

to



0 0.9 Miles

Project Aerial Map

ETDM Alternative Point
ETDM Alternative Terminus
ETDM Alternative Segment
ETDM Alternative Polygon
Primary and Limited Access Highway
Secondary, Unlimited Access Highway
Other Highway Feature

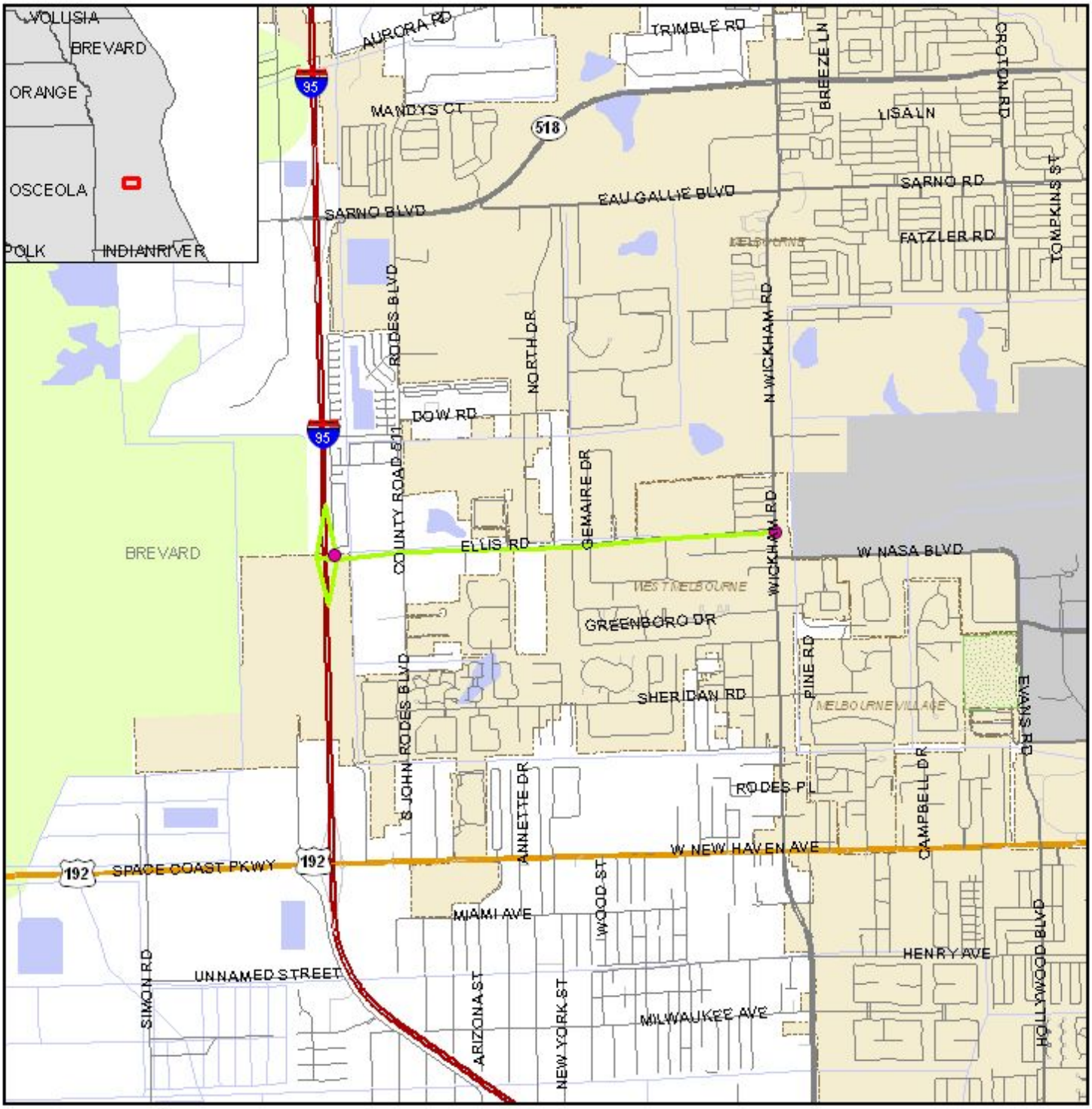
Data Sources:
Highways - Geographic Data Technology, Inc.
Digital Orthophotograph - US Geological Survey

Printed on: 6/01/2011

Map Generated on: 12/4/2009

11460 I-95 and Ellis Road Interchange, Alternative #1

to



0 0.7 Miles

Project Location Map

Data Sources:
Geographic Data Technology, Inc.
US Geological Survey
US Census Bureau
County Property Appraisers
Florida Natural Areas Inventory

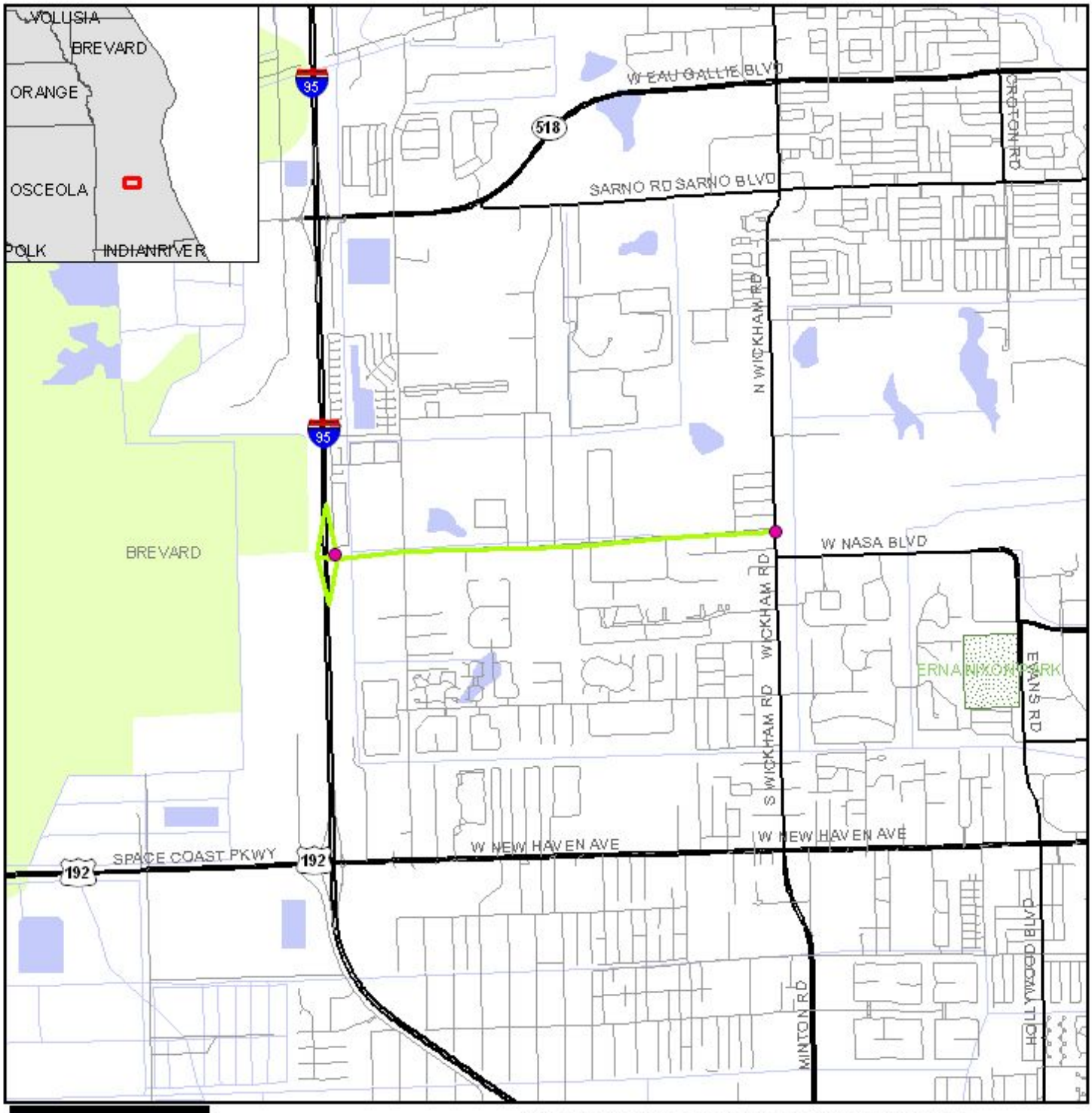
- ETDM Alternative Point
- ETDM Alternative Terminus
- ETDM Alternative Segment
- ETDM Alternative Polygon
- River, Stream or Canal
- Water Body
- Swamp/Marsh
- Managed Conservation Lands
- Primary and Limited Access Highway
- Secondary, Unlimited Access Highway
- Connecting Road
- Local Road or Trail
- Other Roadway Feature
- Toll Road
- Railroad
- Airport
- City Limits
- County Boundaries

Printed on: 6/01/2011

Map Generated on: 12/4/2009

11460 I-95 and Ellis Road Interchange, Alternative #1

to



0 0.9 Miles

Conservation and Recreation Area Map

- ETDM Alternative Point
- ETDM Alternative Segment
- ETDM Alternative Polygon
- ETDM Alternative Terminus
- River, Stream or Canal
- Water Body
- Swamp/Marsh
- Conservation or Recreation Area
- Major Road
- Local Road or Trail
- Railroad
- County Boundary

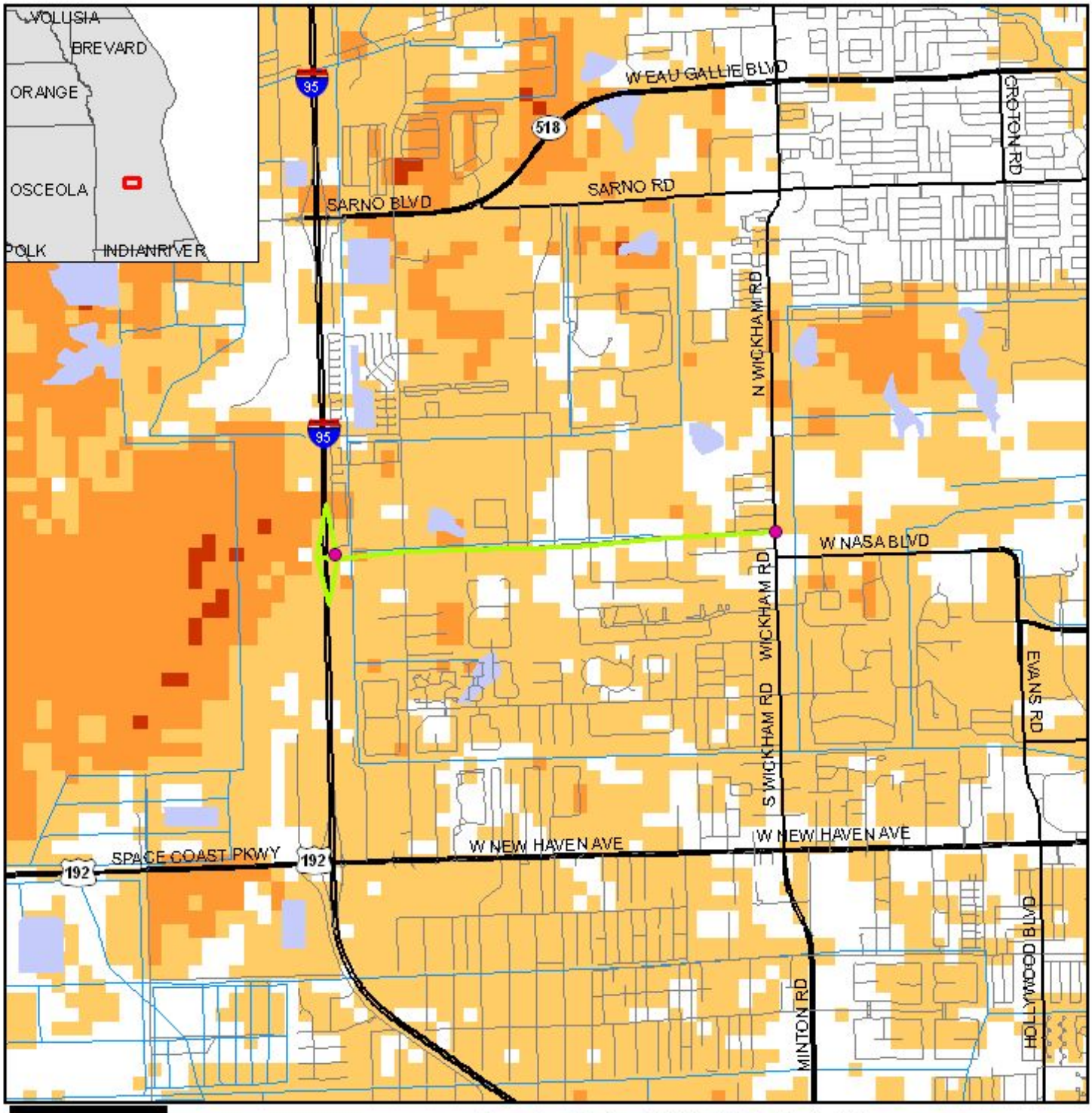
Data Sources:
Geographic Data Technology, Inc.
US Geological Survey
Florida Natural Areas Inventory

Printed on: 6/01/2011

Map Generated on: 12/4/2009

11460 I-95 and Ellis Road Interchange, Alternative #1

to



Species Potential Habitat Model Map

- ETDM Alternative Point
- ETDM Alternative Terminus
- ETDM Alternative Segment
- ETDM Alternative Polygon
- Major Road
- Local Road or Trail
- Railroad
- River, Stream or Canal
- Water Body

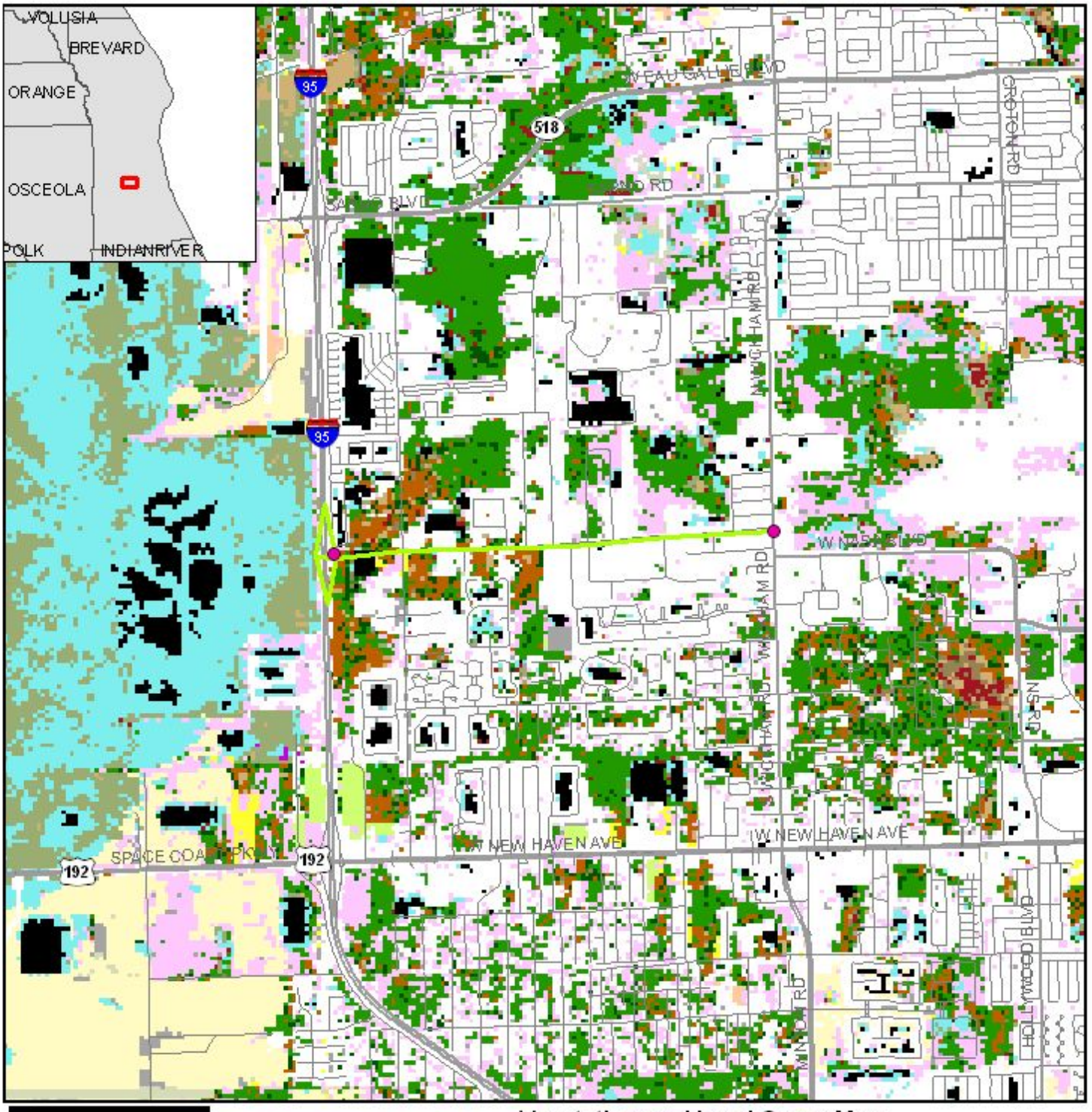
Potential Habitat for Focal Species

- 1 - 6 Species
- 7 - 12 Species
- 13 - 18 Species
- > 18 Species

Data Sources:
Geographic Data Technology, Inc.
US Geological Survey
Florida Department of Transportation
Florida Fish & Wildlife Conservation Commission

11460 I-95 and Ellis Road Interchange, Alternative #1

to



Vegetation and Land Cover Map

ETDM Alternative Polygon
ETDM Alternative Segment
ETDM Alternative Terminus
ETDM Alternative Point
Major Road
Local Road or Trail

Not Classified
Coastal Strand
Sand/Beach
Xeric Oak Scrub
Sand Pine Scrub
Sandhill
Dry Prairie
Mixed Hardwood-pine Forest
Hardwood Hammocks and Forests
Pinelands
Cabbage Palm-live Oak Hammock
Tropical Hardwood Hammock
Freshwater Marsh and Wet Prairie
Sawgrass Marsh
Cattail Marsh
Shrub Swamp
Bay Swamp
Cypress Swamp
Cypress/Pine/Cabbage Palm
Mixed Wetland Forest
Hardwood Swamp
Hydric Hammock
Bottomland Hardwood Forest
Salt Marsh
Mangrove Swamp
Scrub Mangrove
Tidal Flats
Open Water
Shrub and Brushland
Grassland
Bare Soil/Clearcut
Improved Pasture
Unimproved Pasture
Sugarcane
Citrus
Row and Field Crops
Other Agriculture
Exotic Plants
Australian Pine
Melaleuca
Brazilian Pepper
High Impact Urban
Low Impact Urban
Extractive

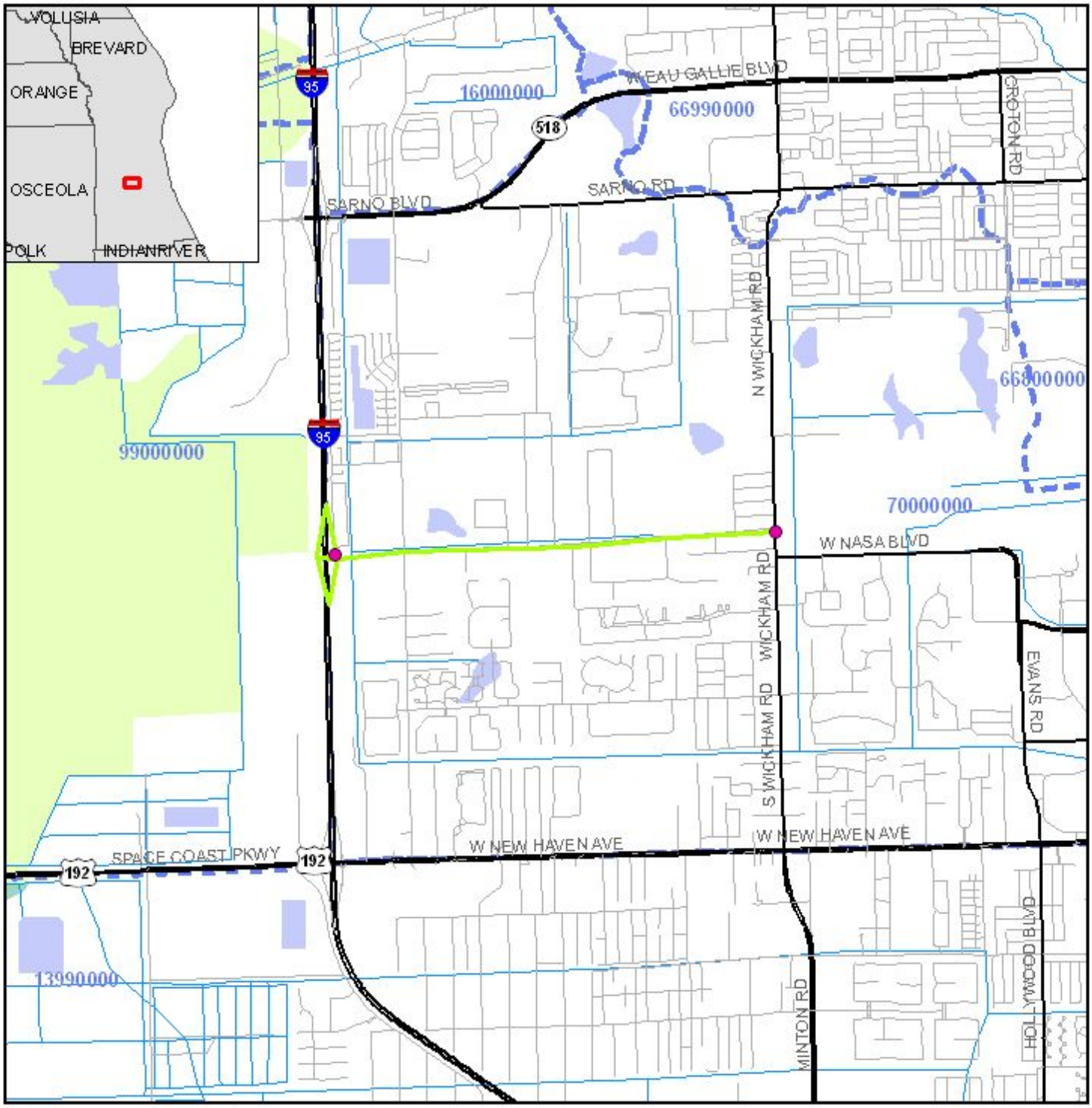
Data Sources:
Geographic Data Technology, Inc.; Florida Department of Transportation; Florida Fish and Wildlife Conservation Commission

Printed on: 6/01/2011

Map Generated on: 12/4/2009

11460 I-95 and Ellis Road Interchange, Alternative #1

to



0 1 Miles

Water Resources Map

- ETDM Alternative Point
- ETDM Alternative Terminus
- ETDM Alternative Segment
- ETDM Alternative Polygon
- Major Road
- Local Road or Trail
- Railroad
- 1st Magnitude Spring
- River, Stream or Canal
- Navigable Water Way
- Drainage Basin
- Outstanding Florida Water
- Surface Water Class I
- Surface Water Class II
- Other Water Body
- Swamp/Marsh

Data Sources:

Geographic Data Technology, Inc.
US Geological Survey

Florida Department of Transportation
Florida Department of Environmental Protection

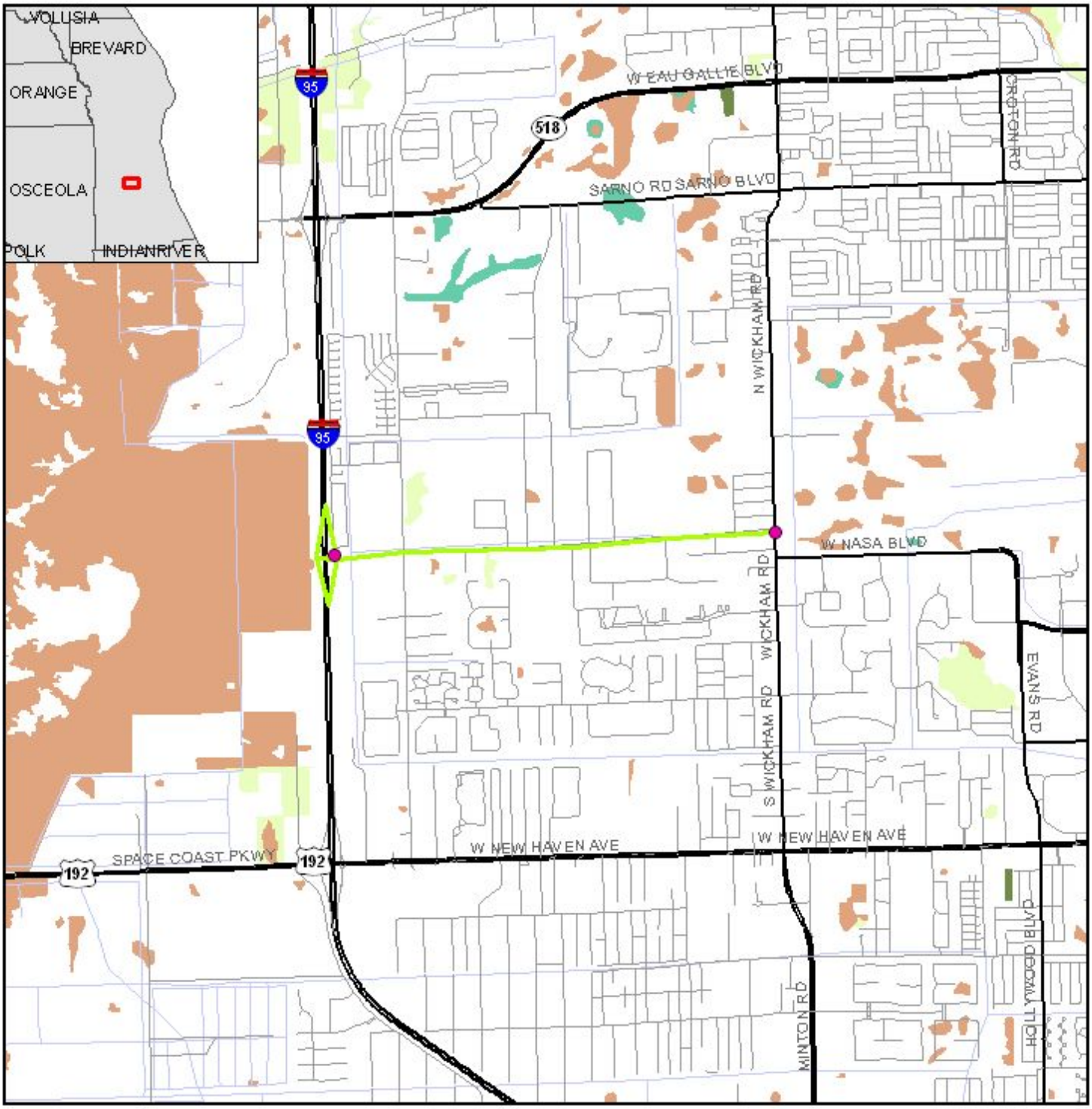
Florida Geological Survey
US Bureau of Transportation Statistics

Printed on: 6/01/2011

Map Generated on: 12/4/2009

11460 I-95 and Ellis Road Interchange, Alternative #1

to



Wetland Resource Map

0 0.5 Miles

- ETDM Alternative Polygon
- ETDM Alternative Segment
- ETDM Alternative Terminus
- ETDM Alternative Point
- Major Road
- Local Road or Trail
- River, Stream or Canal
- Water Body
- Non-vegetated Wetland
- Vegetated Non-forested Wetland
- Wetland Forested Mixed
- Wetland Coniferous Forest
- Wetland Hardwood Forest

Data Sources: Geographic Data Technology, Inc.; Florida Water Management Districts; US Geological Survey

Printed on: 6/01/2011

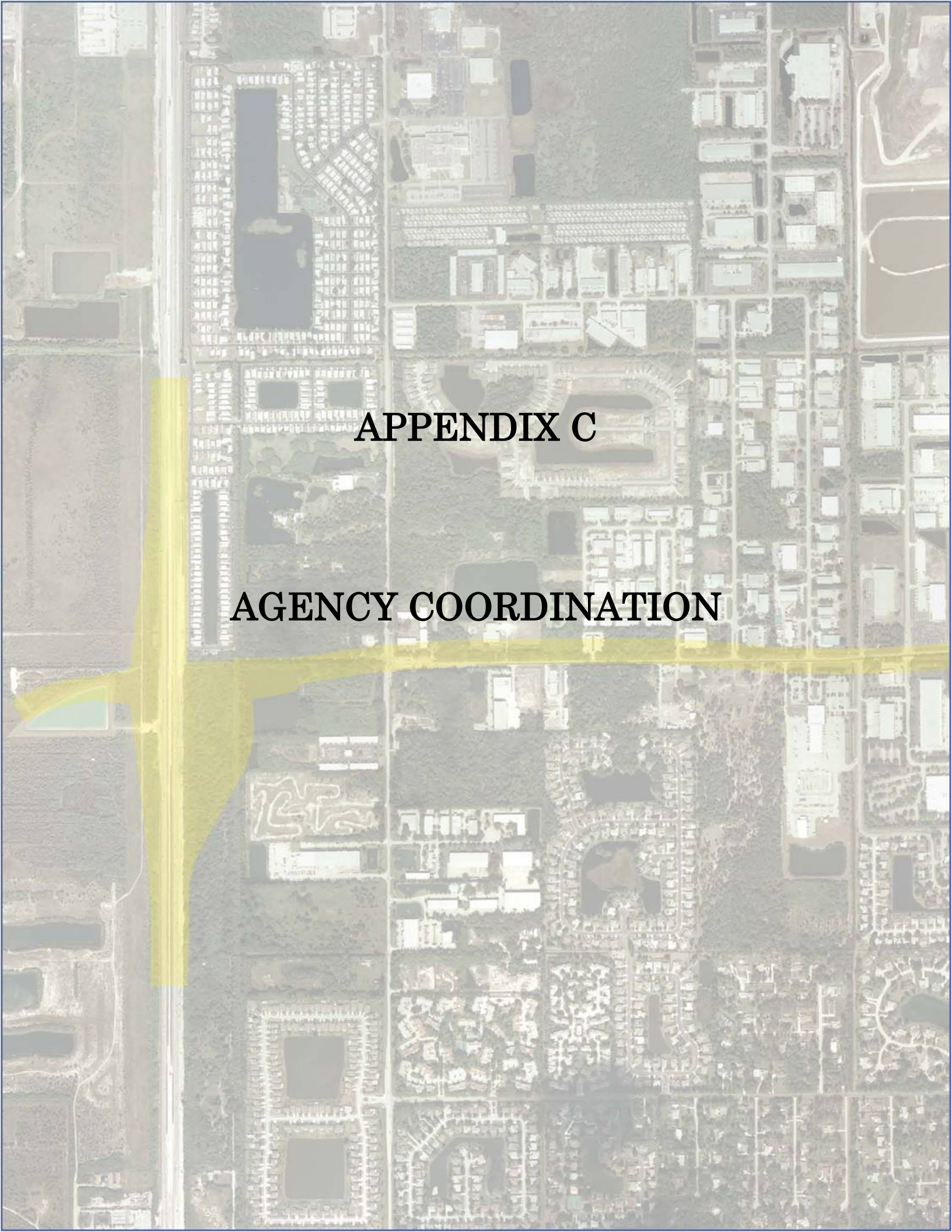
Map Generated on: 12/4/2009

Appendicies

Legend			
Color Code	**Meaning**	**ETAT**	**Public Involvement**
0	None	The issue is present, but the project will have no impact on the issue; project has no adverse effect on ETAT resources; permit issuance or consultation involves routine interaction with the agency.	No community opposition to the planned project. No adverse effect on the community.
1	Enhanced	Project has positive effect on the ETAT resource or can reverse a previous adverse effect leading to environmental improvement.	Affected community supports the proposed project. Project has positive effect.
2	Minimal to None	Project has little adverse effect on ETAT resources. Permit issuance or consultation involves routine interaction with the agency. Low cost options are available to address concerns.	Minimum community opposition to the planned project. Minimum adverse effect on the community.
3	Moderate	Agency resources are affected by the proposed project, but avoidance and minimization options are available and can be addressed during development with a moderated amount of agency involvement and moderate cost impact.	Project has adverse effect on elements of the affected community. Public Involvement is needed to seek alternatives more acceptable to the community. Moderate community interaction will be required during project development.
4	Substantial	The project has substantial adverse effects but ETAT understands the project need and will be able to seek avoidance and minimization or mitigation options during project development. Substantial interaction will be required during project development and permitting.	Project has substantial adverse effects on the community and faces substantial community opposition. Intensive community interaction with focused Public Involvement will be required during project development to address community concerns.
5	Dispute Resolution	Project does not conform to agency statutory requirements and will not be permitted. Dispute resolution is required before the project proceeds to programming	Community strongly opposes the project. Project is not in conformity with local comprehensive plan and has severe negative impact on the affected community.
	No ETAT Consensus	ETAT members from different agencies assigned a different degree of effect to this project, and the ETDM coordinator has not assigned a summary degree of effect.	
	No ETAT Reviews	No ETAT members have reviewed the corresponding issue for this project, and the ETDM coordinator has not assigned a summary degree of effect.	

Supporting Documents

Date	Type	Size	Link	Name / Description
12/09/2009	Form SF-424: Application for Federal Assistance	113 KB	http://etdmpub.fla-etat.org/est/servlet/blobViewer?blobID=9132	Final SF-424 form for I-95 and Ellis Rd Interchange: Application for Federal Assistance
12/04/2009	Feasibility Study	5.1 MB	http://etdmpub.fla-etat.org/est/servlet/blobViewer?blobID=9074	I-95 @ Ellis Rd. Feasibility Study: Systems Operational Analysis Report (SOAR)
12/03/2009	Interchange Modification/Justification Report	53.19 MB	http://etdmpub.fla-etat.org/est/servlet/blobViewer?blobID=9054	Final__MLB_IJR_Report_Revised_10-03-08: Interchange Justification Report for I-95 at Ellis Road



APPENDIX C

AGENCY COORDINATION

United States Department of the Interior

U. S. FISH AND WILDLIFE SERVICE

7915 BAYMEADOWS WAY, SUITE 200
JACKSONVILLE, FLORIDA 32256-7517

IN REPLY REFER TO:
FWS Log No. 41910-2014-I-0106

February 25, 2014

Mr. William G. Walsh
Environmental Administrator
FDOT District 5
719 South Woodland Blvd
DeLand FL 32720-6800

RE: I-95/Ellis Road Interchange and Ellis Road from I-95 to Wickham Road (CR509)
Financial ID No. 426905-1-22-01
Federal Aid No. SFT1 251 R

Dear Mr. Walsh:

The US Fish and Wildlife Service (Service) has completed its review of a proposal to create a new interchange at I-95 and Ellis Road, extend Ellis road from its' western terminus to I-95 (approximately .4 miles) and widen the existing Ellis road east to Wickham Road. Ellis Road is currently a two lane undivided highway from John Rodes Blvd (SR 511) until it reaches the intersection of Lake Ibis road where it becomes a four lane divided highway that terminates at Wickham Road. The proposal involves widening Ellis road to a four lane divided highway in order to accommodate future traffic levels and provide a direct route from I-95 to the Melbourne airport in Brevard County, Florida.

The Service has reviewed the information provided by FDOT in the WEBAR (dated January 2013) and subsequent surveys for federally listed species, regarding the presence or absence of species within the action area and we provide the following timeline of actions:

February 2013- FDOT submitted a Wetland Evaluation and Biological Assessment Report (WEBAR) to the Service. The WEBAR indicated habitat for listed species was present and would be impacted but surveys for federally listed species would be completed at a later date.

May 2013 - The Service informed FDOT that surveys for listed species needed to be completed before a determination of effect could be made. The Service cannot concur with a 'May Affect but Not Likely to Adversely Affect' (MANLAA) determination before surveys are completed for federally listed species.

December 2013 - FDOT submitted the results of a Florida scrub-jay (*Aphelocoma coerulescens*) (FLSJ) survey conducted in October 2013 at pond site 4A. Although FLSJs were seen at three call stations, the FDOT concluded that a bird was "just passing through" the area. FDOT made a MANLAA determination based on survey results.

January 2014 - The Service asked for further information on the FLSJ survey data, including the direction of flight to and from the call stations, as per the survey protocol. After further internal review, the Service concluded there was not enough information to delineate the amount of occupied habitat and did not agree that the birds were transient. The guidelines state that a minimum of five days is required for the survey effort, however in many cases additional time is needed to discern territorial boundaries.

January 2014 - The Service coordinated a survey for Audubon's crested caracara (*Polyborus plancus)* with the environmental consultant through emails, phone calls and site visits. The lead Recovery biologist for caracara from the South Florida Ecological Services office met with the consultant in the field to assist in survey design. FDOT decided to postpone this survey and conduct it in the future depending on the timing of the start of construction.

January 2014 - FDOT sent a letter to the Service requesting concurrence on federally listed species, based on the information contained in the January 2013 WEBAR, and the inclusion of specific language recently developed by the Service, Federal Highway Administration (FHWA) and FDOT, that would allow the project to move forward.

Endangered Species Act Coordination

Our comments are for the purpose of providing informal consultation in accordance with section 7 of the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. 1531 *et seq.*), the Fish and Wildlife Coordination Act (FWCA) (16 U.S.C. 661 *et seq.*), and the Migratory Bird Treaty Act of 1918 (MBTA), as amended (16 U.S.C. 703-712 *et seq.*).

Wood Stork (*Mycteria Americana*)
The project corridor is approximately 2.04 miles long and passes through the Core Foraging Area (CFA) of at least six active nesting colonies of the endangered wood stork. Extensive canals, ditches and numerous wetlands are within the action area and wood storks have been documented foraging in these wetlands. The Service has determined that the loss of wetlands within a CFA due to an action could result in the loss of foraging habitat for the wood stork. To minimize adverse effects to the wood stork and other wetland dependent species, we recommend that impacts to suitable foraging habitat be avoided. The amount of wetland impacts for the preferred alternative and final design should be quantified. FDOT should utilize the Wood Stork Effect Determination Key developed with the Army COE to reach an effect determination. The amount of wetland mitigation needed and where it will be purchased should also be disclosed in order to reach a MANLAA determination.

Florida Scrub-Jay (*Aphelocoma coerulescens*)
At one time this species could be found throughout Brevard County in suitable habitats (scrubby-flatwoods, oak-scrub and coastal scrub). Recent declines are attributable to habitat conversion and lack of management. A survey was conducted (Oct. 2013) in suitable habitat surrounding a potential pond site known as 4A (28.100308N, 80.681572W). Florida scrub-jays responded to call tapes at three call stations and may be utilizing the only area of suitable habitat in this location. Therefore, this project is a 'May Affect 'for the Florida scrub-jay and the Service will request additional information if this project moves forward, in order to determine the amount of occupied habitat. FDOT indicated that there is an alternative, existing pond, to the east that could be utilized and would avoid impacts to suitable jay habitat.

Audubon's Crested Caracara (*Polyborus plancus)*
The caracara is a resident, diurnal, non-migratory species that occurs in Florida as well as the Southwestern U.S. and Central America. Only the Florida population, which is isolated from the remainder of the species, is listed as threatened under the ESA. Suitable habitat for this species includes wet and dry prairies, improved pastures and lightly wooded areas. Cabbage palms, cypress, scrub oaks and saw palmetto may be habitat indicators as to the presence or absence of this species. Suitable habitat can be found within the project corridor and may be impacted by this proposal (WEBAR Jan 2013). The Service coordinated with FDOT and their consultant through emails, phone calls and site visits (Jan 2014) to assist with survey design and protocol. FDOT has decided to postpone the 2014 survey.

Eastern Indigo Snake (*Drymarchon corais couperi*)
Suitable habitat for this species can be found within the project corridor. The new interchange, roadway and wider, divided, highway are likely to increase the number of amphibian and reptile deaths as the animals attempt to cross the wider roadway. Direct effects for this species include mortality from additional vehicle traffic and attempts to cross wider roadways. Indirect effects from increased commercial and residential development in this portion of Brevard County as a result of the new roadways (WEBAR page 6-22) will result in further habitat fragmentation and mortality. FDOT has agreed to utilize the new eastern indigo snake guidelines (dated August 2013) found on our office website, http://www.fws.gov/northflorida/. Generally, a complete gopher tortoise survey is needed within the ROW in order to utilize the effect determination key. The Service also recommends that plastic netting, frequently used on roadsides under grass or seed, be eliminated from the construction design. Studies have shown that plastic netting entraps many species of snakes and does not deteriorate over time. Biodegradable matting or a similar material should be used to reduce direct, indirect and cumulative effects to this federally listed species and many other common species of snakes found in this area.

Gopher Tortoise (*Gopherus polyphemus*)
Gopher tortoises are long-lived reptiles that occupy upland habitat throughout Florida including forests, pastures, and yards. They dig deep burrows for shelter and forage on low-growing plants. Gopher tortoises share these burrows with more than 350 other species, and are therefore referred to as a keystone species. In July 2011, the Service determined that listing the eastern population of the tortoise as Threatened under the Endangered Species Act is warranted. However, it is precluded from doing so at this time due to higher priority actions and a lack of sufficient funds. Therefore, the tortoise was placed on the candidate conservation list and should

be listed as a candidate species in FDOT documents. Gopher tortoises are a threatened wildlife species and are protected by state law. State permitting guidelines for avoidance, minimization and mitigation should be followed.

Everglades Snail Kite (*Rostrhamus sociabilis plumbeus)*
Now officially known simply as a snail kite, the subspecies from Florida and Cuba was listed as endangered in 1967. The range of the Florida population of snail kites is restricted to watersheds in the central and southern part of the state. Because of a highly specific diet composed almost entirely of apple snails (*Pomacea paludosa*), survival of the snail kite depends directly on the hydrology and water quality of these watersheds. No known nesting sites are found within the action area. The Service has determined that this project would have 'No Effect' on this species.

The FDOT has determined the project 'May Affect but is Not Likely to Adversely Affect' the following species: Florida scrub-jay, Audubon's crested caracara, eastern indigo snake, Everglades snail kite and wood stork. In a letter, dated January 31, 2014, FDOT requested a concurrence with a MANLAA determination for all of these species at this time.

The Service does not have enough information to provide concurrence or non-concurrence with FDOT's determination [pursuant to Section 7 of the ESA, as described in 50 § CFR402.14]. In order to comply with Section 7 of the ESA, FDOT has committed to reinitiate consultation with the Service prior to advancing the project to construction. At the time of re-initiation, FDOT will provide additional information, as needed, which will allow the Service to complete our analysis of the project's effects on the species noted above and complete consultation on the project. The FDOT must document this commitment in the final environmental document for the project and in documents for any subsequent re-evaluations of the project.

Bald eagles are no longer listed under the ESA. Coordination with the Office of Migratory Birds is recommended if a nest tree is located within the action area. Information about the new eagle guidelines can be found at (http://www.fws.gov/migratorybirds/BaldEagle.htm).

FDOT determined that the project would have 'No Effect' on federally listed plants due to the lack of suitable habitat or occurrence records in the right-of-way.

Fish and Wildlife Coordination Act

The FDOT is statutorily obligated to mitigate all wetland impacts according to the Clean Water Act and the Section 404 permitting process through the Army Corps of Engineers. In addition, the State of Florida also requires the demonstration of avoidance, minimization and mitigation of wetland impacts. During the design and permitting phase the FDOT has committed to avoiding and minimizing the direct and indirect effects of this project on wetland ecosystems. The January 2013 WEBAR states that the Preferred Alternative will impact 4.17 acres of forested wetlands and 4.20 acres of wet prairie/marsh. Additionally, 13.2 acres of surface waters will be directly impacted. The need to reinitiate consultation will allow the Service to review the final design for the interchange as well as all of the pond locations and wetland impact acreages. The Preferred Alternative avoids any direct impacts to the FDEP Conservation Easement west of I-95.

This letter does not represent a biological opinion as described in Section 7 of the ESA nor a final concurrence with project effects on listed species as determined by the FDOT. New information regarding species presence, changes to and refinement of the proposed project design, and potential adverse effects not initially considered may increase the risk of adverse effects to a level at which take is reasonably certain to occur. All additional information available will be evaluated when ESA consultation is reinitiated.

If you have any questions, please contact Jane Monaghan at (904)731-3119.

Sincerely,

Jay B. Herrington
Field Supervisor

cc: Scott Sanders-FFWCC
Andrew Phillips-ACOE

Centennial FDOT 1915 ★ 2015

Florida Department of Transportation

RICK SCOTT
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

JIM BOXOLD
SECRETARY

May 27, 2015

Dr. Heath Rauschenberger
Deputy Field Supervisor
U.S. Fish and Wildlife Service
North Florida Ecological Services Office
7915 Baymeadows Way, Suite 200
Jacksonville, FL 32256-7517

SUBJECT: **I-95/Ellis Road Interchange and Ellis Road from I-95 to Wickham Road**
Project Development & Environment (PD&E) Study
2015 Protected Species Surveys and Reinitiation of Informal Consultation
Brevard County, Florida
FPID: 426905-1

Dear Dr. Rauschenberger,

Please find enclosed the species survey reports for the Audubon's crested caracara (*Polyborus plancus audubonii)* and the Florida scrub-jay (*Aphelocoma coerulescens)*, as well as the determination letter for the Eastern indigo snake (*Drymarchon corais couperi),* for the above referenced PD&E Study. In February 2013, the Florida Department of Transportation, District 5 (FDOT) submitted the Wetland Evaluation and Biological Assessment Report, dated January 2013, to the U.S. Fish and Wildlife Service (USFWS) requesting "may affect, not likely to adversely affect" (MANLAA) determinations be granted for federally listed species with the understanding that surveys would be completed at a later date. In May 2013, USFWS responded that without species specific surveys, they could not grant a MANLAA determination. As Section 7 effects determinations are required by the Federal Highway Administration (FHWA) in order to grant Location Design Concept Acceptance (LDCA) for this project, surveys for the federally-listed species potentially affected were conducted. Below is a brief summary of the survey results and agency coordination performed for each of these species:

Audubon's crested caracara

During the FDOT's Efficient Transportation Decision Making (ETDM) process, USFWS identified suitable Audubon's crested caracara (caracara) habitat west of I-95, within the proposed project corridor. In January 2014, FDOT's environmental consultant (E Sciences, Incorporated) met with Brian Powell, the USFWS Species Recovery Lead, to conduct a field inspection to assist in the identification of suitable caracara habitat and development of a draft survey design. Mr. Powell concurred that suitable habitat exists in various areas within 1500 meters of the proposed project corridor west of I-95. Due to the schedule of the project it was determined that the survey should occur during the 2015 nesting season. In

December 2014, FDOT's environmental consultant (E Sciences, Incorporated) met with the current USFWS Species Recovery Lead for caracara, Heather Tipton, to obtain additional guidance on survey design. Following coordination with USFWS, a final survey design was prepared and submitted to USFWS for concurrence prior to beginning the survey in 2015. On January 5, 2015, USFWS provided concurrence with the proposed methodology. Additional coordination with Ms. Tipton occurred several times during the survey timeframe between January and May to obtain additional guidance on adjustment of survey station locations, observation status, and clarification of recent recommendations regarding the survey methodology. During the survey three caracara sightings were recorded, but no evidence of nesting was observed. The lack of nest trees, and the failure of observed caracaras to display territorial behavior or nesting behavior, indicates those caracaras are not using the proposed project corridor for nesting. Additionally, only during one of the three caracara observations was scouting or foraging behavior noted and this occurred on April 30, 2015. Since this scouting or foraging behavior was only witnessed at the termination of the nesting season and with the absence of observed nesting behavior within the survey area, we believe that a *"may affect, not likely to adversely affect"* determination is warranted for the Audubon's crested caracara.

Eastern indigo snake

The proposed project corridor was evaluated for the potential to impact the Eastern indigo snake (indigo snake). To determine this potential, the habitat within the project corridor was assessed and a 95% gopher tortoise survey was performed. It was determined that only one acre of xeric habitat occurs within the project corridor and only one gopher tortoise burrow was located. Due to the habitats and land uses within the project corridor, it is unlikely that additional gopher tortoise burrows would be located. Additionally, the closest indigo snake observation, according to the Florida Fish and Wildlife Conservation Commission's (FWC) Wildlife Observation Database, is approximately 34 miles southwest of the project corridor. Using this information with the USFWS Eastern Indigo Snake Programmatic Effect Determination Key, the project was given a *"not likely to adversely affect"* determination.

Florida scrub-jay

In the Wetland Evaluation and Biological Assessment Report, dated January 2013, habitat that had the potential to support the Florida scrub-jay (scrub-jay) was identified within the study area. In May 2013, USFWS was consulted and a scrub-jay survey was recommended. In response to this recommendation, in October 2013 E Sciences, Incorporated (E Sciences) evaluated the habitats within the proposed project corridor and identified potential suitable scrub-jay habitat at one proposed pond site location, Pond 4A. Subsequently, a survey was performed by E Sciences in October 2013 and one scrub-jay was observed during a single survey event. Upon further consultation with USFWS (correspondence dated January and February, 2014), a spring survey was recommended to further evaluate the use of that site by scrub-jays. Although Pond 4A is no longer needed for this project, a portion of the property adjacent to the right-of-way is slated to be used for the relocation of the L-15 Canal. In order to evaluate this area for potential impacts to scrub-jays, FDOT requested E Sciences perform another scrub-jay survey in March 2015. No scrub-jays were observed or heard during the March 2015 survey event. Due to the marginal habitat, the elimination of Pond 4A from the project, the small area of impact, and the absence of scrub-jays during the March 2015 survey, we believe that a *"may affect, but is not likely to adversely affect"* determination is warranted for the Florida scrub-jay.

Dr. Heath Rauschenberger
May 27, 2015

We ask that you review the enclosed documents and provide concurrence with the FDOT's determinations for these species. I appreciate your assistance with this project. Please contact me at your earliest convenience if you have any concerns or require additional information. I can be reached by phone at 386-943-5411 or by email at william.walsh@dot.state.fl.us.

Sincerely,

FOR William G. Walsh
Environmental Administrator
FDOT, District Five

Cc Catherine Owen, FDOT District Five
Joseph Sullivan, FHWA
Heather Chasez, E Sciences

Enclosures:
Audubon's Crested Caracara Survey Report
Eastern Indigo Snake Effect Determination
Florida Scrub-Jay Survey Memorandum

United States Department of the Interior
U. S. FISH AND WILDLIFE SERVICE
7915 BAYMEADOWS WAY, SUITE 200
JACKSONVILLE, FLORIDA 32256-7517

IN REPLY REFER TO:
FWS Log No. 41910-DOT- 2015-I-0330

July 29, 2015

Mr. William G. Walsh
Florida Department of Transportation
Environmental Administrator
District Five
605 Suwannee Street
Tallahassee, Florida 32399-0450

RE: I-95/ Ellis Road Interchange Protected Species Surveys

Dear Mr. Walsh:

The U.S. Fish and Wildlife Service (Service) has completed its review of the 2015 Protected Species Surveys and Informal Consultation for the I-95/ Ellis Road Interchange from I-95 to Wickham Road, submitted in May 27, 2015, and additional information submitted via email on July 6, 2015. The survey information was used to support of the Florida Department of Transportation's (FDOT) determination of "may affect, not likely to adversely affect" for the species listed below in the letter. The Service provides the following comments in accordance with section 7 of the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*).

Audubon's Crested Caracara (*Polyborus plancus audubonii*)

The caracara is a resident, diurnal, non-migratory species that occurs in Florida as well as the Southwestern U.S. and Central America. Only the Florida population, which is isolated from the remainder of the species, is listed as threatened under the Act. Suitable habitat for this species includes wet and dry prairies, improved pastures and lightly wooded areas. Cabbage palms, cypress, scrub oaks and saw palmetto may be habitat indicators as to the presence or absence of this species. The Service coordinated with FDOT and their consultant through emails, phone calls, and site visits to assist with survey design and protocol. During the survey period only three caracara sightings were recorded, but no evidence of nesting behavior or territorial displays were observed. Based the survey data and behavior of the caracara's observed, the Service concurs with the "may affect, not likely to adversely affect" determination.

Eastern Indigo Snake (*Drymarchon corais couperi*)

The eastern indigo snake occurs in a broad range of terrestrial habitat types throughout Florida. Although they have a preference for uplands, they also utilize some wetlands and agricultural areas. FDOT used the Service's Eastern Indigo Snake Programmatic Effect Key and project specific habitat assessments, and gopher tortoise surveys to analyze potential impacts to the

species. According to the habitat assessment, the proposed project will affect less than one acre of xeric habitat and will impact only one active gopher tortoise. Based on land use, proposed impacts to snake refugia (e.g. gopher tortoise burrow), historical observation data, and FDOT's commitment to implement the *Standard Protection Measures for the Eastern Indigo Snake*, the Service concurs with a 'may affect, but not likely to adversely affect' determination for the Eastern indigo snake.

Florida Scrub Jay (*Aphelocoma coerulescens*)

Potential habitat for the Florida scrub jay occurs at the proposed pond location, Pond 4A, and one scrub-jay was observed on October 11, 2013, during a single survey event. The Service recommended further evaluation and spring surveys based on these results. However, FDOT's final design eliminated Pond 4A from the project plan and proposed to minimize impacts to the area. As designed, impacts are slated to occur only on a portion of the property adjacent to Ellis Road for the proposed relocation of a canal. Because of the known occurrence in the area, FDOT conducted surveys for the species in March 2015, on the section adjacent to the right-of-way that is slated to be used for the canal location; no jays were observed. Based on avoidance, minimization, and survey data from the proposed canal relocation right-of-way, the Service concurs with a 'may affect, but not likely to adversely affect' determination for the Florida scrub jay.

Thank you for your cooperation and based on FDOT's determination and the Service's concurrence, no further action is required. Reinitiating consultation is required if new information reveals effects of the agency action may affect listed species or critical habitat in a manner or to an extent not considered in this consultation; the agency action is subsequently modified in a manner that causes an effect to a listed species or critical habitat not considered in this consultation; if unauthorized take of any listed species (Audubon's crested caracaras, eastern indigo snake, or Florida scrub jay) occur during construction; or a new species is listed or critical habitat designated that may be affected by the action. If you have any questions regarding this response, please contact Ms. Tera Baird, of my staff at (904) 731-3196 or Ms. Lourdes Mena at (904) 731-3119.

Sincerely,

Jay B. Herrington
Field Supervisor

cc:
Catherine Owen, FDOT District Five
Joseph Sullivan, FHWA

Centennial FDOT 1915 ★ 2015

Florida Department of Transportation

RICK SCOTT
GOVERNOR

719 South Woodland Boulevard
DeLand, Florida 32720

JIM BOXOLD
SECRETARY

October 1, 2015

Lourdes Mena
U.S. Fish and Wildlife Service
North Florida Ecological Services Office
7915 Baymeadows Way, Suite 200
Jacksonville, FL 32256-7517

SUBJECT: I-95/Ellis Road Interchange and
Ellis Road from I-95 to Wickham Road (CR 509) PD&E Study
Wood Stork (*Mycteria americana*) Effects Determination Concurrency
FDOT FPID No. 426905-1-22-01

Dear Ms. Mena,

The Florida Department of Transportation District 5 (FDOT) has completed its review of impacts to wood stork core foraging area habitat for the subject project. The PD&E study limits begin west of I-95 at the terminus of the future extension of the St. Johns Heritage Parkway (SJHP) north of US Highway 192, and extends north, then eastward to the location of the proposed I-95/Ellis Road interchange. The interchange will extend eastward to connect with Ellis Road at the intersection of Ellis Road and John Rodes Boulevard. The PD&E study area continues east from John Rodes Boulevard to its terminus at Wickham Road. The PD&E concept includes a typical section from the SJHP to the proposed bridge over I-95 consisting of a limited access right-of-way approximately 255 feet in width to include a 4-lane divided rural section with eight-foot sidewalks and open drainage swales. The proposed bridge will be approximately 127 feet in width including four travel lanes with a north bound turn lane and sidewalks.

The adjoining typical section for Ellis Road from the bridge to John Rodes Boulevard will include a limited access right-of-way approximately 320 feet in width to accommodate a 4-lane divided urban section with sidewalks, bike lanes, and closed drainage. In January 2013, the PD&E Study identified the Preferred Alternative from John Rodes Boulevard to Wickham Road as a Standard 45 mph Urban Best Fit Alternative consisting of a 4-lane divided urban section with a 22-foot grass median, a 4-foot-wide bicycle lane, 5-foot sidewalk and curb and gutter stormwater collection.

The Service issued a determination of "not likely to adversely affect" (FWS Log NO. 41910-DOT-2015-I-0330) for the Audubon's crested caracara (*Polyborus plancus audubonii*), Florida scrub-jay (*Aphelocoma coerulescens*), and Eastern Indigo snake (*Drymarchon corais couperi*) for this project on July 29, 2015. This determination however did not address wood storks (*Mycteria americana*). The project is located within the core foraging area (CFA) of six (6) previously documented wood stork colonies. The CFAs are described as follows:

SW Lake Washington, Brevard County
Lake Washington, Brevard County
US 192 East, Brevard County, No. 612138
US 192 West, Brevard County
Brevard, No. 616119
Valkaria, Brevard County, No. 616003

Although the wood stork colonies associated with each CFA were documented as once being active, the Florida Fish and Wildlife Conservation Commission Water Bird Locator website, which documents survey data from the 1970's, 80's and 90's, was consulted to evaluate the current status of each CFA. Only the colony located at or near the location of Florida Water Bird Atlas No. 616303 was documented as an active wood stork colony in the 1990's (March 1999). All others noted above were only documented as being active in either the 1970's or 80's.

Impacts to suitable foraging habitat within each of the CFA noted above, occurring as a result of the proposed project consists of approximately 21.29 acres of herbaceous wetlands and 1.45 acres of ditches and borrow pond littoral zone. Approximately 0.66 acres of suitable foraging habitat will be created through the construction of the stormwater management ponds serving the proposed project. The remaining 22.08 acres of impacts to suitable foraging habitat will be replaced through the purchase of herbaceous mitigation bank credits at the Mary A Ranch Wetland Mitigation Bank. The Mary A Ranch mitigation bank is located within CFA Colony No. 616003 and No. 616119. In addition, it should be noted that the Mary A Ranch mitigation bank is located less than 2 miles from the further extent of each of the other CFA encompassing the project. Furthermore, the boundary between those CFA's defined by a 15 miles radius vs. those defined by an 18 mile radius is established in USFWS guidance using the location of local county boundaries.

Therefore, although only two of the six CFA's share a common location with the proposed project and the Mary A Ranch mitigation bank, it is likely due to variability in the actual

foraging area extents for wood stork in this region that newly established wood stork colonies within each of the remaining four CFA's would also benefit from suitable habitat established at the Mary A Ranch mitigation bank.

Given the above information, we respectfully request your concurrence that with appropriate mitigation from the Mary A Ranch Mitigation Bank, the proposed project would result in an effects determination of "not likely to adversely affect" for the wood stork. Should any design changes increase the amount of impacts to wood stork foraging habitat, the FDOT commits to purchase the appropriate mitigation to offset these impacts.

Please feel free to contact me if you have any questions regarding this request.

Sincerely,

Casey Lyon
District Environmental Permit Coordinator
Florida Department of Transportation, District 5

Cc: William Walsh, FDOT District 5, Environmental Management Office
Mary McGehee, FDOT District 5, Environmental Management Office
David Mahnken, E Sciences

United States Department of the Interior

U. S. FISH AND WILDLIFE SERVICE

7915 BAYMEADOWS WAY, SUITE 200
JACKSONVILLE, FLORIDA 32256-7517

IN REPLY REFER TO:
FWS Log No. 04EF1000-2016-I-0007

October 9, 2015

Casey Lyon
Environmental Permit Coordinator
Florida Department of Transportation, District 5
719 S. Woodland Blvd.
Deland, FL 32720

RE: I-95/Ellis Road Interchange and Ellis Road from I-95 to Wickham Road (CR 509) Project Development & Environment (PD&E) Study Wood Stork Effects Determination
Brevard County, Florida
FDOT FPID Number: 426905-1-22-01

Dear Ms. Lyon:

The U.S. Fish and Wildlife Service (Service) has completed its review of the Wood Stork (*Mycteria americana*) information provided in the Wetland Evaluation and Biological Assessment Report (WEBAR) and the request for concurrence for the I-95/Ellis Road Interchange and Ellis Road from I-95 to Wickham Road (CR 509) Project PD&E Study determination. The Service received a request from the Florida Department of Transportation (FDOT) for informal consultation on October 1, 2015, to review FDOT's effects determination for impacts to wood storks from the proposed study. The PD&E study includes the future extension of the St. John's Heritage Parkway and extends to the proposed location of the I-95/Ellis Road interchange. A proposed bridge over I-95 and right-of-way is also included in the Study. The Service provides the following comments in accordance with section 7 of the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*).

The Service has reviewed FDOT's effects determination and commitments, as well as the information provided in the WEBAR, and the most recent data for wood stork colonies in Brevard County for potential impacts to species listed under the Endangered Species Act. The proposed project will impact 21.29 acres of herbaceous wetlands and 1.45 acres of ditches and borrow pond littoral zone. FDOT identified core foraging areas of six (6) wood stork colonies within the proposed project's impact area. To offset impacts to wetlands used as wood stork core foraging areas (CFA) FDOT proposes the creation of 0.66 acres of stormwater management ponds, which will serve the proposed project, and the purchase of 22.08 acres of herbaceous wetlands in the Mary A. Ranch Wetland Mitigation Bank. The mitigation bank is located within two of the six wood stork colonies CFA (No. 616003 and No. 616119) identified by FDOT.

Telemetry data from birds tracked from 2004-2014 shows that wood storks used the area around the proposed project and were active in at least five of the identified colonies within the 13-mile

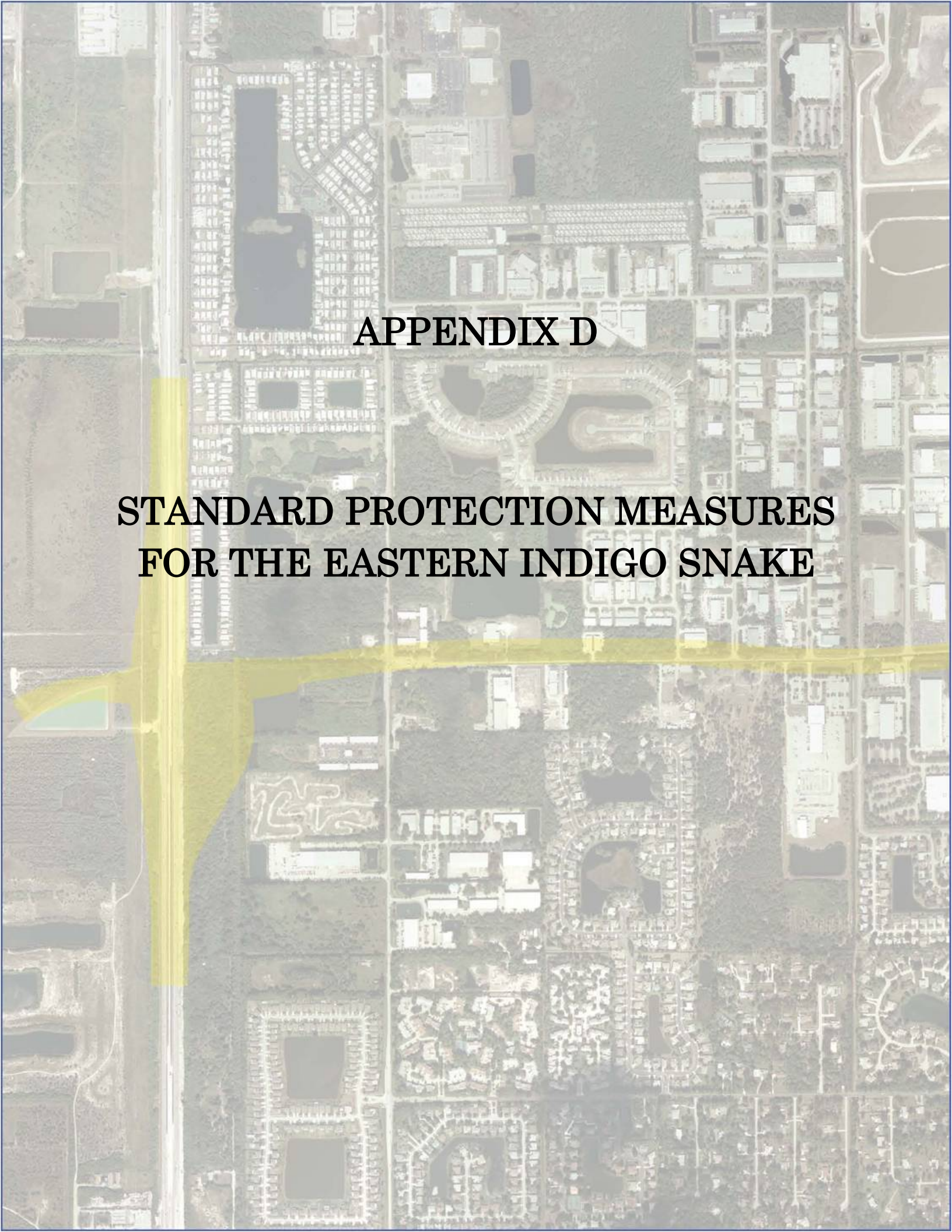
suitable core foraging habitat buffer. The Kemper Ranch, Deseret Ranch, Grange Island BC49, Brevard County Maintenance Shop, Micco South BC52, and Lake Poinsett colonies were all active in Brevard County in 2014. None of these active colonies are within 2,500 feet of the proposed project. It is also our understanding that FDOT's commitments were taken into account in their effects determination. The Service identified the Micco South BC53 and the Grange Island BC49 as active colonies having their CFAs within 13 miles of the Mary A. Ranch mitigation bank. In addition, all of the other colonies identified are within the service area of the mitigation bank. After analyzing our data and the information provided by FDOT the Service concurs with FDOT's determination of "may affect not likely to adversely affect".

Thank you for considering the effects of your proposed project on fish and wildlife, and the ecosystems upon which they depend. Although this does not represent a biological opinion as described in Section 7 of the Act, it does fulfill the requirements of the Act. Should changes to the proposed project occur or new information regarding fish and wildlife resources become available, further consultation with the Service should be initiated to assess any or further potential impacts. If you have any questions, please contact Lourdes Mena at (904)731-3119.

Sincerely,

for Jay B. Herrington
Field Supervisor

cc: Joe Sullivan, FHWA
William Walsh, FDOT District 5



APPENDIX D

STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE

STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE
U.S. Fish and Wildlife Service
August 12, 2013

The eastern indigo snake protection/education plan (Plan) below has been developed by the U.S. Fish and Wildlife Service (USFWS) in Florida for use by applicants and their construction personnel. At least **30 days prior** to any clearing/land alteration activities, the applicant shall notify the appropriate USFWS Field Office via e-mail that the Plan will be implemented as described below (North Florida Field Office: jaxregs@fws.gov; South Florida Field Office: verobeach@fws.gov; Panama City Field Office: panamacity@fws.gov). As long as the signatory of the e-mail certifies compliance with the below Plan (including use of the attached poster and brochure), no further written confirmation or "approval" from the USFWS is needed and the applicant may move forward with the project.

If the applicant decides to use an eastern indigo snake protection/education plan other than the approved Plan below, written confirmation or "approval" from the USFWS that the plan is adequate must be obtained. At least 30 days prior to any clearing/land alteration activities, the applicant shall submit their unique plan for review and approval. The USFWS will respond via e-mail, typically within 30 days of receiving the plan, either concurring that the plan is adequate or requesting additional information. A concurrence e-mail from the appropriate USFWS Field Office will fulfill approval requirements.

The Plan materials should consist of: 1) a combination of posters and pamphlets (see **Poster Information** section below); and 2) verbal educational instructions to construction personnel by supervisory or management personnel before any clearing/land alteration activities are initiated (see **Pre-Construction Activities** and **During Construction Activities** sections below).

POSTER INFORMATION

Posters with the following information shall be placed at strategic locations on the construction site and along any proposed access roads (a final poster for Plan compliance, to be printed on 11" x 17" or larger paper and laminated, is attached):

DESCRIPTION: The eastern indigo snake is one of the largest non-venomous snakes in North America, with individuals often reaching up to 8 feet in length. They derive their name from the glossy, blue-black color of their scales above and uniformly slate blue below. Frequently, they have orange to coral reddish coloration in the throat area, yet some specimens have been reported to only have cream coloration on the throat. These snakes are not typically aggressive and will attempt to crawl away when disturbed. Though indigo snakes rarely bite, they should NOT be handled.

SIMILAR SNAKES: The black racer is the only other solid black snake resembling the eastern indigo snake. However, black racers have a white or cream chin, thinner bodies, and WILL BITE if handled.

LIFE HISTORY: The eastern indigo snake occurs in a wide variety of terrestrial habitat types throughout Florida. Although they have a preference for uplands, they also utilize some wetlands

and agricultural areas. Eastern indigo snakes will often seek shelter inside gopher tortoise burrows and other below- and above-ground refugia, such as other animal burrows, stumps, roots, and debris piles. Females may lay from 4 - 12 white eggs as early as April through June, with young hatching in late July through October.

PROTECTION UNDER FEDERAL AND STATE LAW: The eastern indigo snake is classified as a Threatened species by both the USFWS and the Florida Fish and Wildlife Conservation Commission. "Taking" of eastern indigo snakes is prohibited by the Endangered Species Act without a permit. "Take" is defined by the USFWS as an attempt to kill, harm, harass, pursue, hunt, shoot, wound, trap, capture, collect, or engage in any such conduct. Penalties include a maximum fine of $25,000 for civil violations and up to $50,000 and/or imprisonment for criminal offenses, if convicted.

Only individuals currently authorized through an issued Incidental Take Statement in association with a USFWS Biological Opinion, or by a Section 10(a)(1)(A) permit issued by the USFWS, to handle an eastern indigo snake are allowed to do so.

IF YOU SEE A <u>LIVE</u> EASTERN INDIGO SNAKE ON THE SITE:

- Cease clearing activities and allow the live eastern indigo snake sufficient time to move away from the site without interference;
- Personnel must NOT attempt to touch or handle snake due to protected status.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Immediately notify supervisor or the applicant's designated agent, **and** the appropriate USFWS office, with the location information and condition of the snake.
- If the snake is located in a vicinity where continuation of the clearing or construction activities will cause harm to the snake, the activities must halt until such time that a representative of the USFWS returns the call (within one day) with further guidance as to when activities may resume.

IF YOU SEE A <u>DEAD</u> EASTERN INDIGO SNAKE ON THE SITE:

- Cease clearing activities and immediately notify supervisor or the applicant's designated agent, **and** the appropriate USFWS office, with the location information and condition of the snake.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Thoroughly soak the dead snake in water and then freeze the specimen. The appropriate wildlife agency will retrieve the dead snake.

Telephone numbers of USFWS Florida Field Offices to be contacted if a live or dead eastern indigo snake is encountered:

North Florida Field Office – (904) 731-3336
Panama City Field Office – (850) 769-0552
South Florida Field Office – (772) 562-3909

PRE-CONSTRUCTION ACTIVITIES

1. The applicant or designated agent will post educational posters in the construction office and throughout the construction site, including any access roads. The posters must be clearly visible to all construction staff. A sample poster is attached.

2. Prior to the onset of construction activities, the applicant/designated agent will conduct a meeting with all construction staff (annually for multi-year projects) to discuss identification of the snake, its protected status, what to do if a snake is observed within the project area, and applicable penalties that may be imposed if state and/or federal regulations are violated. An educational brochure including color photographs of the snake will be given to each staff member in attendance and additional copies will be provided to the construction superintendent to make available in the onsite construction office (a final brochure for Plan compliance, to be printed double-sided on 8.5" x 11" paper and then properly folded, is attached). Photos of eastern indigo snakes may be accessed on USFWS and/or FWC websites.

3. Construction staff will be informed that in the event that an eastern indigo snake (live or dead) is observed on the project site during construction activities, all such activities are to cease until the established procedures are implemented according to the Plan, which includes notification of the appropriate USFWS Field Office. The contact information for the USFWS is provided on the referenced posters and brochures.

DURING CONSTRUCTION ACTIVITIES

1. During initial site clearing activities, an onsite observer may be utilized to determine whether habitat conditions suggest a reasonable probability of an eastern indigo snake sighting (example: discovery of snake sheds, tracks, lots of refugia and cavities present in the area of clearing activities, and presence of gopher tortoises and burrows).

2. If an eastern indigo snake is discovered during gopher tortoise relocation activities (i.e. burrow excavation), the USFWS shall be contacted within one business day to obtain further guidance which may result in further project consultation.

3. Periodically during construction activities, the applicant's designated agent should visit the project area to observe the condition of the posters and Plan materials, and replace them as needed. Construction personnel should be reminded of the instructions (above) as to what is expected if any eastern indigo snakes are seen.

POST CONSTRUCTION ACTIVITIES

Whether or not eastern indigo snakes are observed during construction activities, a monitoring report should be submitted to the appropriate USFWS Field Office within 60 days of project completion. The report can be sent electronically to the appropriate USFWS e-mail address listed on page one of this Plan.

ATTENTION:

THREATENED EASTERN INDIGO SNAKES MAY BE PRESENT ON THIS SITE!!!

IF YOU SEE A LIVE EASTERN INDIGO SNAKE ON THE SITE:

- Cease clearing activities and allow the eastern indigo snake sufficient time to move away from the site without interference.
- Personnel must NOT attempt to touch or handle snake due to protected status.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Immediately notify supervisor or the applicant's designated agent, **and** the appropriate U.S. Fish and Wildlife Service (USFWS) office, with the location information and condition of the snake.
- If the snake is located in a vicinity where continuation of the clearing or construction activities will cause harm to the snake, the activities must halt until such time that a representative of the USFWS returns the call (within one day) with further guidance as to when activities may resume.

IF YOU SEE A DEAD EASTERN INDIGO SNAKE ON THE SITE:

- Cease clearing activities and immediately notify supervisor or the applicant's designated agent, **and** the appropriate USFWS office, with the location information and condition of the snake.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Thoroughly soak the dead snake in water and then freeze the specimen. The appropriate wildlife agency will retrieve the dead snake.

USFWS Florida Field Offices to be contacted if a live or dead eastern indigo snake is encountered:

North Florida Field Office – (904) 731-3336
Panama City Field Office – (850) 769-0552
South Florida Field Office – (772) 562-3909

Killing, harming, or harassing indigo snakes is strictly prohibited and punishable under State and Federal Law.

DESCRIPTION: The eastern indigo snake is one of the largest non-venomous snakes in North America, with individuals often reaching up to 8 feet in length. They derive their name from the glossy, blue-black color of their scales above and uniformly slate blue below. Frequently, they have orange to coral reddish coloration in the throat area, yet some specimens have been reported to only have cream coloration on the throat. These snakes are not typically aggressive and will attempt to crawl away when disturbed. Though indigo snakes rarely bite, they should NOT be handled.

SIMILAR SNAKES: The black racer is the only other solid black snake resembling the eastern indigo snake. However, black racers have a white or cream chin, thinner bodies, and WILL BITE if handled.

LIFE HISTORY: The eastern indigo snake occurs in a wide variety of terrestrial habitat types throughout Florida. Although they have a preference for uplands, they also utilize some wetlands and agricultural areas. Eastern indigo snakes will often seek shelter inside gopher tortoise burrows and other below- and above-ground refugia, such as other animal burrows, stumps, roots, and debris piles. Females may lay from 4 - 12 white eggs as early as April through June, with young hatching in late July through October.

PROTECTION: The eastern indigo snake is classified as a Threatened species by both the USFWS and the Florida Fish and Wildlife Conservation Commission. "Taking" of eastern indigo snakes is prohibited by the Endangered Species Act without a permit. "Take" is defined by the USFWS as an attempt to kill, harm, harass, pursue, hunt, shoot, wound, trap, capture, collect, or engage in any such conduct. Penalties include a maximum fine of $25,000 for civil violations and up to $50,000 and/or imprisonment for criminal offenses, if convicted.

Only individuals currently authorized through an issued Incidental Take Statement in association with a USFWS Biological Opinion, or by a Section 10(a)(1)(A) permit issued by the USFWS, to handle an eastern indigo snake are allowed to do so.

August 12, 2013

IF YOU SEE A LIVE EASTERN INDIGO SNAKE ON THE SITE:

- Cease clearing activities and allow the eastern indigo snake sufficient time to move away from the site without interference.
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South Florida ES Office – (772) 562-3909

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LEGAL STATUS: The eastern indigo snake is classified as a Threatened species by both the USFWS and the Florida Fish and Wildlife Conservation Commission. "Taking" of eastern indigo snakes is prohibited by the Endangered Species Act without a permit. "Take" is defined by the USFWS as an attempt to kill, harm, harass, pursue, hunt, shoot, wound, trap, capture, collect, or engage in any such conduct. Penalties include a maximum fine of $25,000 for civil violations and up to $50,000 and/or imprisonment for criminal offenses, if convicted.

August 12, 2013

ATTENTION:

THREATENED EASTERN INDIGO SNAKES MAY BE PRESENT ON THIS SITE!!!

Please read the following information provided by the U.S. Fish and Wildlife Service to become familiar with standard protection measures for the eastern indigo snake.