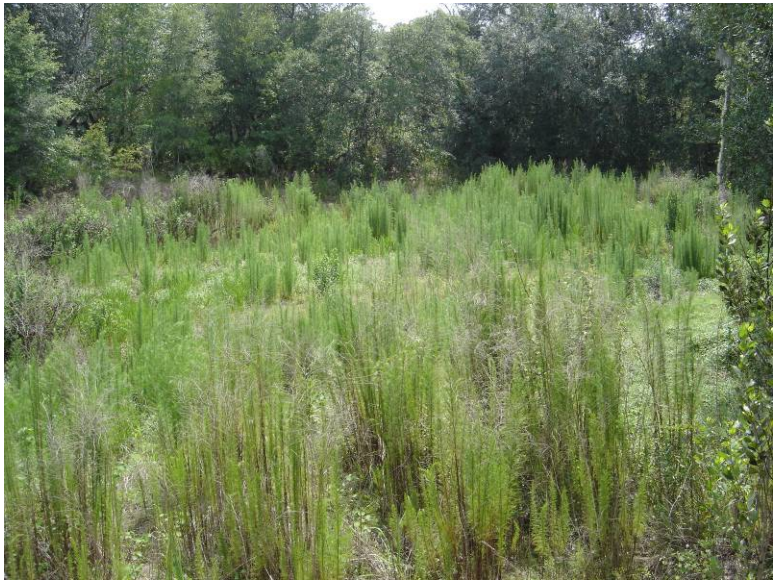
APPENDIX A
Site Photos

Wetland 1

Wetland 2



Wetland 3

Wetland 4

Wetland 5

Wetland 6

Wetland 8

Wetland 9

Wetland 10

Wetland 11

Wetland 12

Wetland 13

Wetland 14

Wetland 15

Wetland 15

Wetland 16

Wetland 17

Wetland 18

Wetland 19

Wetland 20

Wetland 21

Wetland 22

Wetland 23 (September 2006)

Wetland 23 (March 2007)

Wetland 24

Surface Water 1

Surface Water 2

Surface Water 3

Surface Water 4

Surface Water 5

Surface Water 7

Surface Water 7

APPENDIX B

UMAM Assessments

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PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 54 PD&E		Wetland 4 (Red)

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
641	POW/PEM1H	Impact	0.002 acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
New River	Class III	N/A

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

Wetland 4 appears to be a large isolated wetland, but may be hydrologically connected to Wetland 6 during times of high inundation. There are other wetlands and surface waters in the surrounding area, but they do not appear to be connected to this wetland. Wetland 4 is surrounded by mainly undeveolped uplands and is adjacent to SR 54.

Assessment area description

This wetland is an open-water marsh (freshwater marsh) system. There is a large area where standing water appears throughout the year. The wetland consisted of *juncus* sp., broomsedge and wax myrtle. There were egrets, cormorants, and vultures located in this area. There is a small vegetated island located in the center of the wetland.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Significant nearby features include SR 54 and Wesley Chapel Nursery and Landscape Supply located across the street from the wetland. There are undeveloped uplands surrounding a majority of the wetland.	This type of wetland is not unique to this area. There are many freshwater marshes found within the project corridor and throughout Pasco County.

Functions	Mitigation for previous permit/other historic use
This wetland serves as foraging area for many different types of wading birds. It can also provide habitat for many amphibians and other wildlife species. This wetland also provides water storage and filtration of nutrients for the surrounding area.	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)
two-toed amphiuma, lesser siren, greater siren, cricket frog, green treefrog, bull frog, pig frog, leopard frog, alligator, eastern mud snake, green water snake, banded water snake, striped swamp snake, black swamp snake, great blue heron, great egret, snowy egret, little blue heron, tricolored heron, bald eagle, northern harrier	American alligator (SSC), Little blue heron (SSC), Snowy egret (SSC), Tricolored heron (SSC), White ibis (SSC), Sandhill crane (T), Wood stork (E)

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

Egret and cormorants were observed using this wetland during the field visits.

Additional relevant factors:

This wetland is located within the Core Foraging Area (CFA) of wood storks. This area could be used for foraging by the wood stork. There is development within the area that is curretnly ongoing.

Assessment conducted by:	Assessment date(s):
Christopher Salicco	Mar-07

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 54 PD&E		Wetland 4 (Red)
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact	Christoper Salicco	3/15/2007

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

.500(6)(a) Location and Landscape Support	w/o pres or current: 7	with: 0
The southern portion of the wetland is adjacent to SR 54, and the majority of the remaining wetland is surrounded by undeveloped uplands. There are pine stands along with what appears to be open pasture land surrounding the wetland. The wetland is an isolated depressional marsh with open water within the center throughout the year. There is one single-family residence located to the west of Wetland 4. On the south side of SR 54 is Wesley Chapel Nursery and Landscape Supply Co.		
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 8	with: 0
There is standing water within the wetland for what appears to be year-round. The wetland does not appear to be affected much by the surrounding environment, since most of the area is currently undeveloped. SR 54 may have altered the hydrology slightly when it was originally constructed. There are a few subdivisions that are located to the east of the wetland site, adjacent to Jireh Rd. Overall, the hydrology of this wetland is consistent to support the exisiting vegetation and provide adequate habitat for wading birds and other wildlife.		
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 8	with: 0
The portion of the wetland that was observed for this project is located near the existing SR 54. The vegetation noticed within this wetland consisted of *Juncus* sp., broomsedge, and wax myrtle. The portion of the wetland to be impacted is not as frequently inundated as the remainder of the wetland. The wetland is consistent with that of a freshwater marsh. There is some disturbance near the edge of the wetland along the toe of slope of the exisiting roadway.		

Score = sum of above scores/30 (if uplands, divide by 20)	current or w/o pres: 0.77	with: 0

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

For impact assessment areas
FL = delta x acres = 0.002

Delta = [with-current]
0.77

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 54 PD&E		Wetland 4 (Yellow)

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
641	POW/PEM1H	Impact	0.035 acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
New River	Class III	N/A

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

Wetland 4 appears to be a large isolated wetland, but may be hydrologically connected to Wetland 6 during times of high inundation. There are other wetlands and surface waters in the surrounding area, but they do not appear to be connected to this wetland. Wetland 4 is surrounded by mainly undeveolped uplands and is adjacent to SR 54.

Assessment area description

This wetland is an open-water marsh (freshwater marsh) system. There is a large area where standing water appears throughout the year. The wetland consisted of *juncus* sp., broomsedge and wax myrtle. There were egrets, cormorants, and vultures located in this area. There is a small vegetated island located in the center of the wetland.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Significant nearby features include SR 54 and Wesley Chapel Nursery and Landscape Supply located across the street from the wetland. There are undeveloped uplands surrounding a majority of the wetland.	This type of wetland is not unique to this area. There are many freshwater marshes found within the project corridor and throughout Pasco County.

Functions	Mitigation for previous permit/other historic use
This wetland serves as foraging area for many different types of wading birds. It can also provide habitat for many amphibians and other wildlife species. This wetland also provides water storage and filtration of nutrients for the surrounding area.	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)
two-toed amphiuma, lesser siren, greater siren, cricket frog, green treefrog, bull frog, pig frog, leopard frog, alligator, eastern mud snake, green water snake, banded water snake, striped swamp snake, black swamp snake, great blue heron, great egret, snowy egret, little blue heron, tricolored heron, bald eagle, northern harrier	American alligator (SSC), Little blue heron (SSC), Snowy egret (SSC), Tricolored heron (SSC), White ibis (SSC), Sandhill crane (T), Wood stork (E)

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

Egret and cormorants were observed using this wetland during the field visits.

Additional relevant factors:

This wetland is located within the Core Foraging Area (CFA) of wood storks. This area could be used for foraging by the wood stork. There is development within the area that is curretnly ongoing.

Assessment conducted by:	Assessment date(s):
Christopher Salicco	Mar-07

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 54 PD&E		Wetland 4 (Yellow)
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact	Christoper Salicco	3/15/2007

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

.500(6)(a) Location and Landscape Support	w/o pres or current: 7	with: 0
The southern portion of the wetland is adjacent to SR 54, and the majority of the remaining wetland is surrounded by undeveloped uplands. There are pine stands along with what appears to be open pasture land surrounding the wetland. The wetland is an isolated depressional marsh with open water within the center throughout the year. There is one single-family residence located to the west of Wetland 4. On the south side of SR 54 is Wesley Chapel Nursery and Landscape Supply Co.		
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 8	with: 0
There is standing water within the wetland for what appears to be year-round. The wetland does not appear to be affected much by the surrounding environment, since most of the area is currently undeveloped. SR 54 may have altered the hydrology slightly when it was originally constructed. There are a few subdivisions that are located to the east of the wetland site, adjacent to Jireh Rd. Overall, the hydrology of this wetland is consistent to support the exisiting vegetation and provide adequate habitat for wading birds and other wildlife.		
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 8	with: 0
The portion of the wetland that was observed for this project is located near the existing SR 54. The vegetation noticed within this wetland consisted of *Juncus* sp., broomsedge, and wax myrtle. The portion of the wetland to be impacted is not as frequently inundated as the remainder of the wetland. The wetland is consistent with that of a freshwater marsh. There is some disturbance near the edge of the wetland along the toe of slope of the exisiting roadway.		

Score = sum of above scores/30 (if uplands, divide by 20)	current or w/o pres: 0.77	with: 0

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

For impact assessment areas
FL = delta x acres = 0.027

Delta = [with-current]
0.77

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 54 PD&E		Wetland 6 (Yellow)

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
640	PSS1C	Impact	0.042 acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
New River	Class III	N/A

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

Wetland 6 appears to be a smaller wetland pocket located between undeveloped uplands. It appears that Wetland 6 may be hydrologically connected to Wetland 4, according to aerial review. This may occur during periods of extreme high inundation or during isolated events.

Assessment area description

This wetland is a small forested pocket surrounded by freshwater marsh. The assesment area is located just off the toe of slope of the existing SR 54. There is not much disturbance caused by the adjacent roadway.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Significant nearby features include SR 54 just to the south/southwest of the wetland. There are undeveloped uplands surrounding a majority of the wetland.	This type of wetland is not unique to this area. There are many similar systems found within the project corridor and throughout Pasco County.

Functions	Mitigation for previous permit/other historic use
This wetland serves as foraging area for many different types of wading birds. It can also provide habitat for many amphibians and other wildlife species. This wetland also provides water storage and filtration of nutrients for the surrounding area.	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)
two-toed amphiuma, lesser siren, greater siren, cricket frog, green treefrog, bull frog, pig frog, leopard frog, alligator, eastern mud snake, green water snake, banded water snake, striped swamp snake, black swamp snake, great blue heron, great egret, snowy egret, little blue heron, tricolored heron, bald eagle, northern harrier	American alligator (SSC), Little blue heron (SSC), Snowy egret (SSC), Tricolored heron (SSC), White ibis (SSC), Sandhill crane (T), Wood stork (E)

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

No wildlife was observed utilizing this wetland during the field visits that were conducted, altough this system could provide habitat to many different species.

Additional relevant factors:

This wetland is located within the Core Foraging Area (CFA) of wood storks. This area could be used for foraging by the wood stork.

Assessment conducted by:	Assessment date(s):
Christopher Salicco	3/15/2007

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 54 PD&E		Wetland 6 (Yellow)
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact	Christoper Salicco	3/15/2007

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

.500(6)(a) Location and Landscape Support	w/o pres or current: 7	with: 0
The southern portion of the wetland is adjacent to SR 54, and the majority of the remaining wetland is surrounded by undeveloped uplands. There are pine stands and other upland habitats surrounding the wetland. The wetland i a depressional marsh with a forested area centrally located within the wetland. There is ongoing development on the south side of SR 54, located at Meadow Pointe Blvd.		
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 8	with: 0
It appears that this wetland may be inundated through portions of the year. The wetland does not appear to be affected much by the surrounding environment, since most of the area is currently undeveloped. SR 54 may have altered the hydrology slightly when it was originally constructed. There are a few subdivisions that are located to the east of the wetland site, adjacent to Jireh Rd. Also there is development ongoing on the south side of SR 54. Overall, the hydrology of this wetland is consistent to support the exisiting vegetation and provide adequate habitat for wading birds and other wildlife.		
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 8	with: 0
The portion of the wetland that was observed for this project is located near the existing SR 54. The vegetation within this wetland is mainlyCarolina willow with some*Carex* spp., *Paspalum* spp., and with some forested vegetation located just to the north. The portion of the wetland to be impacted is not as frequently innundated as the remainder of the wetland. There is minimal disturbance near the edge of the wetland along the toe of slope of the exisiting roadway.		

Score = sum of above scores/30 (if uplands, divide by 20)	current or w/o pres: 0.77	with: 0

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

For impact assessment areas
FL = delta x acres = 0.032

Delta = [with-current]
0.77

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 54 PD&E		Wetland 8 (Yellow)

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
641/617	PSS1C	Impact	0.351

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
New River	Class III	N/A

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

Wetland 8 appears to be a small isolated wetland pocket located between existing roads and development. It appears that Wetland 8 is not hydrologically connected to other wetlands, according to aerial review. There is some undisturbed areas surrounding this wetland, but the whole area is approved for office/retail space.

Assessment area description

This wetland is a small herbaceous isolated pocket with minimal tree canopy. The assesment area is located just off the toe of slope of the existing SR 54. There is existing and approved future development located around the entire wetland.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Significant nearby features include SR 54 just to the south/southwest of the wetland, Jireh Rd to the west, Ronnoch Blvd and a storage facility to the east and a subdivision to the north. There are minimal undeveloped uplands surrounding the wetland.	This type of wetland is not unique to this area. There are many similar systems found within the project corridor and throughout Pasco County.

Functions	Mitigation for previous permit/other historic use
This wetland provides minimal function in this area. It may help to treat some of the runoff from the existing roadways and development. It may also provide minimal habitat for some wildlife in the area, but there are other wetlands in the corridor that would be more suitable as habitat.	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)
two-toed amphiuma, lesser siren, greater siren, cricket frog, green treefrog, bull frog, pig frog, leopard frog, alligator, eastern mud snake, green water snake, banded water snake, striped swamp snake, black swamp snake, great blue heron, great egret, snowy egret, little blue heron, tricolored heron, bald eagle, northern harrier	Little blue heron (SSC), Snowy egret (SSC), Tricolored heron (SSC), White ibis (SSC), Sandhill crane (T), Wood stork (E)

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

No wildlife was observed utilizing this wetland during the field visits that were conducted, altough this system could provide habitat to many different species.

Additional relevant factors:

This wetland is located within the Core Foraging Area (CFA) of wood storks, but is highly unlikely to be utilized by woodstorks due to its size and location. Also, there are much more suitable habitats located in the surrounding areas along the project corridor.

Assessment conducted by:	Assessment date(s):
Christopher Salicco	3/15/2007

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 54 PD&E		Wetland 8 (Yellow)
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact	Christoper Salicco	3/15/2007

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

.500(6)(a) Location and Landscape Support w/o pres or current: 5 with: 0	The southern portion of the wetland is adjacent to SR 54, Jireh Rd is located to the west, Ronnoch Blvd and a storage facility are located to the east, and a subdivision is located to the north. There are minimal undisturbed upland habitats surrounding the wetland. The wetland is a depressional marsh with some tree canopy located within the wetland. This wetland is located in an area that is approved for the construction of an office park and retail plaza, so there are good chances that this wetland will be destroyed by future development within the surrounding area.	
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current: 5 with: 0	It appears that this wetland saturated through portions of the year. The wetland is surrounded by roads and a subdivision, so the hydrology has probably been altered over the years. This wetland is an isolated pocket that is not connected hydrologically to any surrounding wetlands. This area is approved to be developed, so there is a good chance this wetland will be completely eliminated in the near future.	
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community w/o pres or current: 5 with: 0	The portion of the wetland that was observed for this project is located near the existing SR 54, and is surrounded by other roads and development. The vegetation noticed within this wetland is mainly some herbaceous vegetatio within the impact area. The portion of the wetland to be impacted is not high quality and has been altered by the surrounding development. The wetland appears to have been disturbed over time due to development, and it appears this area will be developed in the near future, since is approved for office and retail space.	

Score = sum of above scores/30 (if uplands, divide by 20)	If preservation as mitigation,	For impact assessment areas
current or w/o pres: 0.5 with: 0	Preservation adjustment factor = Adjusted mitigation delta =	FL = delta x acres = 0.176

Delta = [with-current]	If mitigation	For mitigation assessment areas
0.5	Time lag (t-factor) = Risk factor =	RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 54 PD&E		Wetland 12 (Both)

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
631	PSS6A	Impact	0.045 acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
New River/Bassett Brranch	Class III	N/A

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

Wetland 12 appears to be a small isolated wetland pocket located between existing roads and development. It appears that Wetland 12 is not hydrologically connected to other wetlands, according to aerial and field review. There is a subdivision located along two sides of the wetland and roads border the wetland on the other two sides.

Assessment area description

This wetland is a small shrub isolated pocket with a few red maples located throughout. The assesment area is located just off the toe of slope of the existing SR 54. This area is innundated a times throughout the year.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Significant nearby features include SR 54, Billmar Rd, and a subdivision located directly adjacent to it. There are no undeveloped uplands surrounding this wetland. It is a small isolated system that was probably larger prior to the adjacent development and adjacent gravel roadway.	This type of wetland is not unique to this area. There are many similar systems found within the project corridor and throughout Pasco County.

Functions	Mitigation for previous permit/other historic use
This wetland provides minimal function in this area. It may help to treat some of the runoff from the existing roadways and development. It may also provide minimal habitat for some wildlife in the area, but there are other wetlands in the corridor that would be more suitable as habitat.	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)
slamanders, oak toad, southern cricket frog, pinewoods treefrog, little grass frog, narrowmouth toad, alligator, snapping turtle, striped mud turtle, mud turtle, eastern mud snake, cottonmouth, woodstork, wood duck, swallow-tailed kite, barred owl, pileated woodpecker, great-crested flycatcher, prothonotory warbler, rusty blackbird, snadhill crane	American alligator (SSC), Sandhill crane (T), Wood stork (E)

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

No wildlife was observed utilizing this wetland during the field visits that were conducted, altough this system could provide habitat to many different species. Cardinal, blue jays and other songbirds heard.

Additional relevant factors:

This wetland is located within the Core Foraging Area (CFA) of wood storks, but is highly unlikely to be utilized by woodstorks due to its size and location. Also, there are much more suitable habitats located in the surrounding areas along the project corridor.

Assessment conducted by:	Assessment date(s):
Christopher Salicco	3/15/2007

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 54 PD&E		Wetland 12 (Both)
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact	Christoper Salicco	3/15/2007

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

.500(6)(a) Location and Landscape Support	w/o pres or current: 4	with: 0
The wetland is surrounded by Billmar Rd, SR 54 and a subdivision. This is an isolated pocket with no surrounding habitat; all of the surrounding area has been developed or is roadway. There is minimal access to this wetland by wildlife, due to its surroundings. The wetland is isolated from other wetlands and wildlife habitat by the roadways and surrounding developmet.		
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 5	with: 0
It appears that this wetland is saturated through most of the year, and innundated at times because it is a depressional pocket that would hold runoff in this area. The wetland is surrounded by roads and a subdivision, so the hydrology has probably been altered over the years. This wetland is an isolated pocket that is not connected hydrologically to any surrounding wetlands. This may have been part of a larger wetland prior to the surrounding development. The roadways and subdivision block normal sheet flows from entering or exiting the wetland. Appears that this wetland may have been connected to Wetland 11 at one time.		
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 5	with: 0
The portion of the wetland that was observed for this project is located near the existing SR 54, and is surrounded by other roads and development. The vegetation noticed within this wetland is mainly some shrub vegetation such as wax myrtle, with a few red maples, some *juncus spp.*, and smartweed. The portion of the wetland to be impacted is not high quality and has been altered by the surrounding development. The wetland appears to have been disturbed over time due to development, and is now an isolated pocket as a result.		

Score = sum of above scores/30 (if uplands, divide by 20)	current or w/o pres: 0.47	with: 0

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

For impact assessment areas
FL = delta x acres = 0.021

Delta = [with-current]
0.47

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 54 PD&E		Wetland 15 (Both)

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
640	PSS1A	Impact	0.172

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
New River/Bassett Brranch	Class III	N/A

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

Wetland 15 is located adjacent to SR 54 and is connected to both side of the road by triple culverts. There is a flow channel near River Glenn Blvd. that connects back to a larger wetland located to the north/northwest. There is ongoing development directly adjacent to this wetland and it appears that portions have been filled/altered. A new triple concrete culvert has been constructed near River Glenn Blvd.

Assessment area description

The wetland is a large herbaceous vegetated wetland with some shrubs and trees throughout. It reduces down to a small flow channel near River Glenn Blvd. and has been filled/altered at this location. The vegetation consists of pickerel weed,*juncus* spp. wild water pepper, and other herbaceous species. Some Carolina willow located near the area by the satellite dishes. Hydrologically connected to both side of SR 54 by culverts.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
The wetland is located directly adjacent to SR 54 and is near River Glenn Blvd., which is a newly constructed road. There is on-going development located to the north of this area. A subdivision exists just to the west/northwest of this area. Located near two stormwater ponds.	This type of wetland is not unique to this area. There are many similar systems found within the project corridor and throughout Pasco County.
Functions	Mitigation for previous permit/other historic use
This wetland could provide habitat to wading birds, amphibians and other wildlife. It also helps in filtering of nutrients and storage of runoff from the nearby development. It is hydrologically connected to a wetland south of SR 54 by a series of three culverts.	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)
two-toed amphiuma, lesser siren, greater siren, cricket frog, green treefrog, bull frog, pig frog, leopard frog, alligator, eastern mud snake, green water snake, banded water snake, striped swamp snake, black swamp snake, great blue heron, great egret, snowy egret, little blue heron, tricolored heron, bald eagle, northern harrier	American alligator (SSC), Little blue heron (SSC), Snowy egret (SSC), Tricolored heron (SSC), White ibis (SSC), Sandhill crane (T), Wood stork (E)

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

There was no wildlife observed utilizing this wetland during the field visits. Raccoonand deer tracks were observed within the soil.

Additional relevant factors:

This wetland is located within the Core Foraging Area (CFA) of wood storks, and could provide potential habitat for this species. There is ongoing and existing development within the surrounding areas of this wetland.

Assessment conducted by:	Assessment date(s):
Christopher Salicco	3/15/2007

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 54 PD&E		Wetland 15
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact	Christoper Salicco	3/15/2007

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

.500(6)(a) Location and Landscape Support	w/o pres or current: 6	with: 0
Wetland 15 is located adjacent to SR 54 and near River Glenn Blvd. There are numerous stormwater ponds surrounding the wetland, both from ongoing construction sites and existing developments. There is an existing subdivision located to the west/northwest and on-going development to the north/northeast. Buffers surrounding the wetland have been dramatically reduced by the surrounding development, reducing the ability of wildlife to utilize it.		
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 6	with: 0
There is a pocket located to the north of SR 54, away from the project corridor that appears to be saturated/inundated throughout the year. This is a depressional unit in the interior. The remainder of the wetland appears to be saturated/inundated at times. The wetland is hyrdrologically connected to the south of SR 54 by a series of three culverts. On the south side of SR 54 there is open pasture land with pockets of herbaceous wetlands located throughout. The hydrologic connectivity may be altered by the on-going construction and appears to be altered by the existing development and SR 54. During the field visits, it appeared that portions of the wetland near the culverts have been filled by the construction activities.		
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 5	with: 0
There is pickerelweed, *Juncus* sp., wild water pepper, water primrose, beggars tick and other herbaceous vegetation located within the wetland. There was Carolina willow observed near the satellite dishes in the western portion of the wetland. Also, this portion of the wetland that is located within the proposed right-of-way did not appear to be functioning much as a wetland. The majority of the remaining wetland is located away from the project limits. Fill material was observed right against the wetland with silt fence bordering the fill. It appears that some of the fill may have encroaced into the wetland near the culvert crossing.		

Score = sum of above scores/30 (if uplands, divide by 20)	current or w/o pres: 0.57	with: 0

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

For impact assessment areas
FL = delta x acres = 0.098

Delta = [with-current]
0.57

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 54 PD&E		Wetland 16 (Both)

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
641	PEM1F	Impact	0.021

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
New River/Bassett Brranch	Class III	N/A

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

Wetland 16 is located adjacent to SR 54 near a triple culvert that connects to the north side of SR 54. This wetland connects to a cypress dome that is located to the south of the project corridor. The wetland is located within a giant pasture area with other wetlands located thoroughout. This system is connected to Wetland 15 by a triple culvert.

Assessment area description

The wetland is a large herbaceous vegetated wetland connected to a cypress swamp to the south and to W15 on the north side of SR 54 by a culvert. The portion within the project corridor acts as a flow channel between the wetland to the south and the wetlands to the north of SR 54. The wetland had some standing water near the culvert and consisted of *Juncus* sp., wild water pepper, primrose willow, and field grasses.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
The wetland is located near a culvert adjacent to SR 54. It is surrounded by pasture land and other wetlands. This is a large wetland with a cypress swamp/stand located to the south of the assessment area.	This type of wetland is not unique to this area. There are many similar systems found within the project corridor and throughout Pasco County.

Functions	Mitigation for previous permit/other historic use
This wetland could provide habitat to wading birds, amphibians and other wildlife. It also helps in filtering of nutrients and storage of runoff from the nearby development. It is hydrologically connected to other wetland systems to the south.	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)
two-toed amphiuma, lesser siren, greater siren, cricket frog, green treefrog, bull frog, pig frog, leopard frog, alligator, eastern mud snake, green water snake, banded water snake, striped swamp snake, black swamp snake, great blue heron, great egret, snowy egret, little blue heron, tricolored heron, bald eagle, northern harrier	American alligator (SSC), Little blue heron (SSC), Snowy egret (SSC), Tricolored heron (SSC), White ibis (SSC), Sandhill crane (T), Wood stork (E)

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

There was no wildlife observed utilizing this wetland during the field visits. No obvious signs of wildlife were observed as well.

Additional relevant factors:

This wetland is located within the Core Foraging Area (CFA) of wood storks, and could provide potential habitat for this species. The wetland is located within a large pasture area and connected to other wetland systems, including a cypress swamp/stand the south.

Assessment conducted by:	Assessment date(s):
Christopher Salicco	3/15/2007

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 54 PD&E		Wetland 16 (Both)
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact	Christoper Salicco	3/15/2007

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

.500(6)(a) Location and Landscape Support	w/o pres or current: 7	with: 0
Wetland 16 is located at a culvert crossing adjacent to SR 54. This area is surrounded by open pasture land and other wetland systems of similar structure located within the pasture land. The south portion of the wetland, locate away from the project corridor, consists of a cypress dome/stand. Wetland 16 is connected hydrologically to Wetland 15 by a series of three culverts. At the present, there is no development around this wetland, except for SR 54 and the developmet that is located on the north side of SR 54.		
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 7	with: 0
There was some standing water located near the culverts during the field visits. This wetland appears to be saturated for a good portion of the year and may becomeinundated at times. The area directly adjacent to the culvert seems to hold water most of the time, since it is lower elevation than the rest of the wetland and the pasture This system is connected to a cypress dome/stand to the south. There is not much development on the south side of SR 54 at the present. There is one subdivision located a little ways to the west/southwest of this wetland. Overall, the hydrology of this wetland has not been altered much by its surroundings.		
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 6	with: 0
The main vegetation located within the wetland that exists in the project corridor consists of*Juncus* sp., wild water pepper, primrose willow, beggars tick and then some field (bahia) grass. The evaluated portion of the wetland acts as a flow channel to a larger wetland system located to the south. The system to the south is a cypress dome/stand. Development to the north of SR 54 may alter the wetland over time. A triple culvert is connecting both sides of the roadway to keep sheet flow from being completely restricted. The best portions of this system are located to the south and will not be impacted by the roadway improvements. The culverts will be extended as necessary to continue sheet flows and not disturb the hydrology of the wetland.		

Score = sum of above scores/30 (if uplands, divide by 20)	current or w/o pres: 0.67	with: 0

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

For impact assessment areas
FL = delta x acres = 0.014

Delta = [with-current]
0.67

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 54 PD&E		Wetland 17 (Both)

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
641	PEM1F	Impact	0.279

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
New River/Bassett Brranch	Class III	N/A

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

Wetland 17 is located adjacent to SR 54 just to the east of newly constructed River Glenn Blvd. At the present, there are two roadways that borde the wetland, one to the west and the other to the south. The remainder of the surroundings is undeveloped.

Assessment area description

The wetland is a large herbaceous vegetated wetland bordered by SR 54 to the south and River Glenn Blvd. to the west. The wetland consists of *Juncus* sp., wetland grasses, some bahia grass, wax myrtle and a large area of shallow open water. This wetland could provide good habitat to wading birds, amphibians and other wildlife.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
The wetland is located just to the north of SR 54 and just to the east of River Glenn Blvd. The remainder of the wetland is presently surrounded by undisturbed uplands and a few isolated wetland pockets.	This type of wetland is not unique to this area. There are many similar systems found within the project corridor and throughout Pasco County.

Functions	Mitigation for previous permit/other historic use
This wetland could provide habitat to wading birds, amphibians and other wildlife. It also helps in filtering of nutrients and storage of runoff from development within the area. This system does not appear to be connected to other wetland systems.	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)
two-toed amphiuma, lesser siren, greater siren, cricket frog, green treefrog, bull frog, pig frog, leopard frog, alligator, eastern mud snake, green water snake, banded water snake, striped swamp snake, black swamp snake, great blue heron, great egret, snowy egret, little blue heron, tricolored heron, bald eagle, northern harrier, wood stork	American alligator (SSC), Little blue heron (SSC), Snowy egret (SSC), Tricolored heron (SSC), White ibis (SSC), Sandhill crane (T), Wood stork (E)

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

There were birds within the trees located on the islands near the center of the wetland. The birds were not identified due to the distance from project location. This wetland appeared to be good potential habitat for many different kinds of wading birdsand amphibians.

Additional relevant factors:

This wetland is located within the Core Foraging Area (CFA) of wood storks, and could provide potential habitat for this species. The wetland is located near two roadways, but could still provide good habitat for the wood stork and other wading birds.

Assessment conducted by:	Assessment date(s):
Christopher Salicco	3/15/2007

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 54 PD&E		Wetland 17
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
Impact	Christoper Salicco	3/15/2007

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

.500(6)(a) Location and Landscape Support	w/o pres or current: 7	with: 0
Wetland 17 is adjacent to two roadways. SR 54 is located just to the south and River Glenn Blvd is located to the west. These roadways restrict the wildlife that can utilize this wetland. To the north and east of wetland 17, there are large tracts of undeveloped uplands with a few small isolated wetlands located throughout. New River Elementary is planned to be constructed just to the north of wetland 17. There is also ongoing development adjacent to River Glenn Blvd. Presently, the surrounding portions to the north and east are undeveloped uplands and provide a good buffer and corridor for wildlife to utilize. Ongoing and future development will adversely impact the surroundings and limit the utilization of this wetland by wildlife.		
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 7	with: 0
There was a lot of standing water located within the interior of the wetland during the field visits. Many of the field visits were conducted during the dry season, so it is concluded that Wetland 17 is inundated throughout the year. SR 54 located directly to the south and River Glenn Blvd located to the west have altered the hydrology, although this may not have had that negative of an impact. The wetland appears to be receiving good amounts of water and supporting vegetation and wildlife indicative of this type of system. Ongoing development around the area may change the hydrology that is present.		
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 7	with: 0
The main vegetation located within the wetland that exists in the project corridor consists of *Juncus* sp., wetland grasses, some field (bahia) grass, and wax myrtle. The portion of the wetland that may be impacted by the roadway improvements would consist of the outer wetland fringes, located near or within the existing right of way. This wetland provides habitat to many different wading birds, amphibians and other wildlife. There was open water observed within a good portion of the interior of the wetland. Vegetation was only observed along the fringes of the open water.		

Score = sum of above scores/30 (if uplands, divide by 20)	current or w/o pres: 0.7	with: 0

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

For impact assessment areas
FL = delta x acres = 0.195

Delta = [with-current]
0.7

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 54 PD&E		Wetland 19 (Red)

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
641	PEM1F	Impact	0.179

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
New River/Bassett Brranch	Class III	N/A

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

Wetland 19 is located to the east of Wetland 17 and west of Wetland 20. It is surrounded by undeveloped uplands and the prior mentioned wetlands. SR 54 is located to the south. Ashton Oaks Blvd is located on the south side of SR 54 and new development is ongoing in that area.

Assessment area description

Wetland 19 consists of a few minor depressional units that are connected. It appears that these depressional units are connected. The wetland consists of some groundcover and some low-lying herbaceous vegetation.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
The wetland is located just to the north of SR 54. Ashton Oaks development is ongoing on the south side of SR 54.	This type of wetland is not unique to this area. There are many similar systems found within the project corridor and throughout Pasco County.

Functions	Mitigation for previous permit/other historic use
This wetland could provide habitat to wading birds, amphibians and other wildlife. It also helps in filtering of nutrients and storage of runoff from the surrounding areas.	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)
two-toed amphiuma, lesser siren, greater siren, cricket frog, green treefrog, bull frog, pig frog, leopard frog, alligator, eastern mud snake, green water snake, banded water snake, striped swamp snake, black swamp snake, great blue heron, great egret, snowy egret, little blue heron, tricolored heron, bald eagle, northern harrier	American alligator (SSC), Little blue heron (SSC), Snowy egret (SSC), Tricolored heron (SSC), White ibis (SSC), Sandhill crane (T), Wood stork (E)

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

No wildlife was observed within this wetland during the field visits.

Additional relevant factors:

This wetland is located within the Core Foraging Area (CFA) of wood storks, and could provide potential habitat for this species. It does not appear that the wetland is innundated throughout much of the year, so it may not provide the best habitat for wood stork or other wading birds.

Assessment conducted by:	Assessment date(s):
Christopher Salicco	3/15/2007

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 54 PD&E		Wetland 19 (Red)
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact	Christoper Salicco	15-Mar

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

.500(6)(a) Location and Landscape Support	w/o pres or current: 7	with: 0
Wetland 19 is adjacent to SR 54, which is located to the south. Wetland 17 is located to the west and Wetland 20 is located to the east. The remainder of the surrounding area consists of undeveloped land, mainly uplands. Ashton Oaks develpoment is ongoing directly to the south of SR 54 at this location. There is adequate upland buffers to support wildlife utilization in this wetland, although the wetland does not provide ideal habitat for many species.		
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 6	with: 0
Wetland 19 was dry during the field visits that were conducted. It does not appear that this wetland is inundated throughout the year, and is probably only saturated during the rainy season. Within the impact area of this wetland there were few, if any, hydrologic indicators. This area is a marginal wetland; there are a few pockets that are awa from the roadway that may be saturated at times during the year and be able to support wetland vegetation.		
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 5	with: 0
The vegetation located within or near the area of impact consisted mainly of some wax myrtle and some bahia grass. The hydrology of the wetland may have been altered by SR 54 or other development along SR 54. There are slightly deeper pockets of herbaceous vegetation located away from the proposed right of way that will not be impacted by the proposed roadway improvements. The overall wetland consists of about 4 lower-lying pockets tha are connected by some transitional areas.		

Score = sum of above scores/30 (if uplands, divide by 20)	current or w/o pres: 0.6	with: 0

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

For impact assessment areas
FL = delta x acres = 0.107

Delta = [with-current]
0.6

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

Form 62-345.900(2), F.A.C. [effective date 02-04-2004]

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 54 PD&E		Wetland 19 (Yellow)

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
641	PEM1F	Impact	0.243

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
New River/Bassett Brranch	Class III	N/A

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

Wetland 19 is located to the east of Wetland 17 and west of Wetland 20. It is surrounded by undeveloped uplands and the prior mentioned wetlands. SR 54 is located to the south. Ashton Oaks Blvd is located on the south side of SR 54 and new development is ongoing in that area.

Assessment area description

Wetland 19 consists of a few minor depressional units that are connected. It appears that these depressional units are connected. The wetland consists of some groundcover and some low-lying herbaceous vegetation.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
The wetland is located just to the north of SR 54. Ashton Oaks development is ongoing on the south side of SR 54.	This type of wetland is not unique to this area. There are many similar systems found within the project corridor and throughout Pasco County.

Functions	Mitigation for previous permit/other historic use
This wetland could provide habitat to wading birds, amphibians and other wildlife. It also helps in filtering of nutrients and storage of runoff from the surrounding areas.	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)
two-toed amphiuma, lesser siren, greater siren, cricket frog, green treefrog, bull frog, pig frog, leopard frog, alligator, eastern mud snake, green water snake, banded water snake, striped swamp snake, black swamp snake, great blue heron, great egret, snowy egret, little blue heron, tricolored heron, bald eagle, northern harrier	American alligator (SSC), Little blue heron (SSC), Snowy egret (SSC), Tricolored heron (SSC), White ibis (SSC), Sandhill crane (T), Wood stork (E)

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

No wildlife was observed within this wetland during the field visits.

Additional relevant factors:

This wetland is located within the Core Foraging Area (CFA) of wood storks, and could provide potential habitat for this species. It does not appear that the wetland is innundated throughout much of the year, so it may not provide the best habitat for wood stork or other wading birds.

Assessment conducted by:	Assessment date(s):
Christopher Salicco	3/15/2007

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 54 PD&E		Wetland 19 (Yellow)
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact	Christoper Salicco	15-Mar

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

.500(6)(a) Location and Landscape Support	w/o pres or current: 7	with: 0
Wetland 19 is adjacent to SR 54, which is located to the south. Wetland 17 is located to the west and Wetland 20 is located to the east. The remainder of the surrounding area consists of undeveloped land, mainly uplands. Ashton Oaks develpoment is ongoing directly to the south of SR 54 at this location. There is adequate upland buffers to support wildlife utilization in this wetland, although the wetland does not provide ideal habitat for many species.		
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 6	with: 0
Wetland 19 was dry during the field visits that were conducted. It does not appear that this wetland is inundated throughout the year, and is probably only saturated during the rainy season. Within the impact area of this wetland there were few, if any, hydrologic indicators. This area is a marginal wetland; there are a few pockets that are awa from the roadway that may be saturated at times during the year and be able to support wetland vegetation.		
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 5	with: 0
The vegetation located within or near the area of impact consisted mainly of some wax myrtle and some bahia grass. The hydrology of the wetland may have been altered by SR 54 or other development along SR 54. There are slightly deeper pockets of herbaceous vegetation located away from the proposed right of way that will not be impacted by the proposed roadway improvements. The overall wetland consists of about 4 lower-lying pockets tha are connected by some transitional areas.		

Score = sum of above scores/30 (if uplands, divide by 20)	current or w/o pres: 0.6	with: 0

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

For impact assessment areas
FL = delta x acres = 0.146

Delta = [with-current]
0.6

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 54 PD&E		Wetland 20 (Red)

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
641	PEM1F	Impact	0.648 acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
New River/Bassett Brranch	Class III	N/A

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

Wetland 20 is located on the north side of SR 54, directly adjacent to the existing toe of slope. This wetland is located along an undeveloped portion of SR 54. Wetland 21 is located to the south of SR 54 and is connected by a culvert. There are undeveloped uplands and wetlands located around this site.

Assessment area description

Wetland 20 is a herbaceous wetland that appears to hold water through a majority of the year. Vegetation consists of juncus, panicum, and pickerelweed, along with some carolina willow and ludwigia. The area even near the existing toe of slope appeared to be saturated. This wetland could provide habitat to numerous wading birds.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
SR 54 is located directly to the south. The remainder of the surroundings are undeveloped uplands and wetlands. There are a few residences on the south of SR 54, along with ongoing Ashton Oaks development.	This type of wetland is not unique to this area. There are many similar systems found within the project corridor and throughout Pasco County.

Functions	Mitigation for previous permit/other historic use
This wetland could provide habitat to wading birds, song birds, amphibians and other wildlife. It also helps in filtering of nutrients and storage of runoff from the surrounding areas.	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)
two-toed amphiuma, lesser siren, greater siren, cricket frog, green treefrog, bull frog, pig frog, leopard frog, alligator, eastern mud snake, green water snake, banded water snake, striped swamp snake, black swamp snake, great blue heron, great egret, snowy egret, little blue heron, tricolored heron, bald eagle, northern harrier, wood stork	American alligator (SSC), Little blue heron (SSC), Snowy egret (SSC), Tricolored heron (SSC), White ibis (SSC), Sandhill crane (T), Wood stork (E)

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

Numerous wading birds were observed during the field visit in 2006, and others were seen during the field visits in March 2007. Downy Woodpecker heard.

Additional relevant factors:

This wetland is located within the Core Foraging Area (CFA) of wood storks, and could provide potential habitat for this species.

Assessment conducted by:	Assessment date(s):
Christopher Salicco	3/15/2007

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 54 PD&E		Wetland 20 (Red)
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact	Christoper Salicco	15-Jun

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

.500(6)(a) Location and Landscape Support	w/o pres or current: 8	with: 0	Wetland 20 is located within an undisturbed section along SR 54. The majority of the wetland is surrounded by undeveloped lands, consisting of both uplands and wetlands. State Road 54 is located to the south; wetland 20 is begins near the toe of slope of the existing roadway. This open landscape and undeveloped lands make it easier for wildlife to utilize this wetland. There are few barriers, with the exception of SR 54, that restrict wildlife from accessing this wetland. Wetland 21 is located on the south side of SR 54 and is connected to Wetland 20 by a culvert under the road.
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 8	with: 0	Wetland 20 had standing water visible during the field inspections. There were also saturated soils, even some near the toe of slope of SR 54 and near the culvert crosings. The hydrology of this wetland does not appear to have been altered much and the culvert that connects it to Wetland 21 enables sheet flows to go to both sides of SR 54. There is also no development located within the vicinity of Wetland 20 to increase or decrease water flow or runoff into the wetland. The stain lines on the fence posts located at the existing ROW indicate that water stands in this wetland at times throughout the year. The center portions of this wetland may be inundated throughout the year.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 8	with: 0	The community structure of this wetland is a depressional herbaceous wetland. Vegetation consisted of *Juncus* sp., *Paspalum* sp., pickerelweed, and some Carolina willow and *Ludwigia* sp. scattered throughout, but mainly located near the roadway. The system appeared to be functioning well. Stain lines on the fence posts located at, or near, the existing ROW indicate that the wetland is innundated at times throughout the year and water levels can actually get 1-2' above the soil surface. This wetland is capable of supporting wading birds and many other forms of wildlife.

Score = sum of above scores/30 (if uplands, divide by 20)	current or w/o pres: 0.8	with: 0

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

For impact assessment areas
FL = delta x acres = 0.518

Delta = [with-current]
0.8

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 54 PD&E		Wetland 20 (Yellow)

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
641	PEM1F	Impact	0.317

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
New River/Bassett Brranch	Class III	N/A

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

Wetland 20 is located on the north side of SR 54, directly adjacent to the existing toe of slope. This wetland is located along an undeveloped portion of SR 54. Wetland 21 is located to the south of SR 54 and is connected by a culvert. There are undeveloped uplands and wetlands located around this site.

Assessment area description

Wetland 20 is a herbaceous wetland that appears to hold water through a majority of the year. Vegetation consists of juncus, panicum, and pickerelweed, along with some carolina willow and ludwigia. The area even near the existing toe of slope appeared to be saturated. This wetland could provide habitat to numerous wading birds.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
SR 54 is located directly to the south. The remainder of the surroundings are undeveloped uplands and wetlands. There are a few residences on the south of SR 54, along with ongoing Ashton Oaks development.	This type of wetland is not unique to this area. There are many similar systems found within the project corridor and throughout Pasco County.

Functions	Mitigation for previous permit/other historic use
This wetland could provide habitat to wading birds, song birds, amphibians and other wildlife. It also helps in filtering of nutrients and storage of runoff from the surrounding areas.	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)
two-toed amphiuma, lesser siren, greater siren, cricket frog, green treefrog, bull frog, pig frog, leopard frog, alligator, eastern mud snake, green water snake, banded water snake, striped swamp snake, black swamp snake, great blue heron, great egret, snowy egret, little blue heron, tricolored heron, bald eagle, northern harrier, wood stork	American alligator (SSC), Little blue heron (SSC), Snowy egret (SSC), Tricolored heron (SSC), White ibis (SSC), Sandhill crane (T), Wood stork (E)

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

Numerous wading birds were observed during the field visit in 2006, and others were seen during the field visits in March 2007. Downy Woodpecker heard.

Additional relevant factors:

This wetland is located within the Core Foraging Area (CFA) of wood storks, and could provide potential habitat for this species.

Assessment conducted by:	Assessment date(s):
Christopher Salicco	3/15/2007

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 54 PD&E		Wetland 20 (Yellow)
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact	Christoper Salicco	15-Mar

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

.500(6)(a) Location and Landscape Support	w/o pres or current: 8	with: 0	Wetland 20 is located within an undisturbed section along SR 54. The majority of the wetland is surrounded by undeveloped lands, consisting of both uplands and wetlands. State Road 54 is located to the south; wetland 20 is begins near the toe of slope of the existing roadway. This open landscape and undeveloped lands make it easier for wildlife to utilize this wetland. There are few barriers, with the exception of SR 54, that restrict wildlife from accessing this wetland. Wetland 21 is located on the south side of SR 54 and is connected to Wetland 20 by a culvert under the road.
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 8	with: 0	Wetland 20 had standing water visible during the field inspections. There were also saturated soils, even some near the toe of slope of SR 54 and near the culvert crosings. The hydrology of this wetland does not appear to have been altered much and the culvert that connects it to Wetland 21 enables sheet flows to go to both sides of SR 54. There is also no development located within the vicinity of Wetland 20 to increase or decrease water flow or runoff into the wetland. The stain lines on the fence posts located at the existing ROW indicate that water stands in this wetland at times throughout the year. The center portions of this wetland may be inundated throughout the year.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 8	with: 0	The community structure of this wetland is a depressional herbaceous wetland. Vegetation consisted of *Juncus* sp., *Paspalum* sp., pickerelweed, and some Carolina willow and *Ludwigia* sp. scattered throughout, but mainly located near the roadway. The system appeared to be functioning well. Stain lines on the fence posts located at, or near, the existing ROW indicate that the wetland is innundated at times throughout the year and water levels can actually get 1-2' above the soil surface. This wetland is capable of supporting wading birds and many other forms of wildlife.

Score = sum of above scores/30 (if uplands, divide by 20)	current or w/o pres: 0.8	with: 0

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

For impact assessment areas
FL = delta x acres = 0.254

Delta = [with-current]
0.8

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 54 PD&E		Wetland 21 (Red)

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
640	PSS1C	Impact	0.533

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
New River/Bassett Brranch	Class III	N/A

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

Wetland 21 is located on the south side of SR 54, opposite of Wetland 20. It is located to the east/northeast of the ongoing Ashton Oaks development, which is located west of Ashton Oaks Blvd. There is a mobile home park and a few single family residences located to the east/southeast of this wetland. Linda Dr is also located near the east side of this wetland.

Assessment area description

Wetland 21 is a pocket wetland consisting of shrub and lower-lying subcanopy type species, including carolina willow,*Ludwigia sp.* , cattails, and *Juncus* sp.. There are quite a few trees (approx 15-25 ft in height) that border portions of the wetland. There were hydrologic indicators, such as adventitious rooting that the water levels in this wetland breach the surface by about 6 inches to 1 foot at times during the year.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
State Road 54 is located to the north, Ashton Oaks development is ongoing to the southwest, single family residences to the southeast, and wetland 20 to the north of SR 54 which is connected by a culvert.	This type of wetland is not unique to this area. There are many similar systems found within the project corridor and throughout Pasco County.

Functions	Mitigation for previous permit/other historic use
This wetland could provide habitat to song birds, amphibians and other wildlife. It also helps in filtering of nutrients and storage of runoff from the surrounding areas.	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)
two-toed amphiuma, lesser siren, greater siren, cricket frog, green treefrog, bull frog, pig frog, leopard frog, alligator, eastern mud snake, green water snake, banded water snake, striped swamp snake, black swamp snake, great blue heron, great egret, snowy egret, little blue heron, tricolored heron, bald eagle, northern harrier, wood stork	American alligator (SSC), Little blue heron (SSC), Snowy egret (SSC), Tricolored heron (SSC), White ibis (SSC), Sandhill crane (T), Wood stork (E)

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

There were songbirds heard within this wetland. No other obvious signs of wildlife were observed during the field visits.

Additional relevant factors:

This wetland is located within the Core Foraging Area (CFA) of wood storks, and could provide potential habitat for this species.

Assessment conducted by:	Assessment date(s):
Christopher Salicco	3/15/2007

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 54 PD&E		Wetland 21 (Red)
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
Impact	Christoper Salicco	15-Mar

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

	w/o pres or current	with	
.500(6)(a) Location and Landscape Support	6	0	Wetland 21 is located on the south side of SR 54 directly adjacent to the toe of slope of the existing roadway. There is ongoing development for a large subdivision to the west/southwest at Ashton Oaks Blvd. There is a mobile home park and other single family residences located to the east/southeast of the wetland. There are some undisturbed/undeveloped upland located directly to the south along with a large wetland located further to the south. Wetland 21 is connected to Wetland 20 to the north by a culvert.
.500(6)(b)Water Environment (n/a for uplands)	7	0	Wetland 21 was dry during field visits. There were hydologic indicators showing that water breaches the surface and inundates this wetland at times during the year. There were stain lines on some of the older Carolina willow, along with adventitious rooting observed on some of the vegetation. The cattails were also a good indication that this wetland receives periods of inundation and water at or near the surface for most of the year. Wetland 21 is connected hydrologically to the north to Wetland 20, which allows for normal flows to go to both sides of SR 54. The overall hydrology has been impacted by SR 54 and the residential units located to the east/southeast. Also the ongoing development of Ashton Oaks will probably alter the hydrology in this area as well.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	7	0	Wetland 21 is a shrubby/herbaceous wetland that borders the toe of slope of SR 54. The vegetation within this wetland consists of Carolina willow, *Juncus* sp., *Ludwigia*, cattails, sedges and rushes. The southern border of the wetland is lined with oak trees that range from 10' to 25' in height. They provide a good buffer along this portion of the weltand. According to the stain lines on some of the vegetation, the adventitious rooting, and some of the species present, there are healthy levels of water at times of the year to sustain this wetland.

Score = sum of above scores/30 (if uplands, divide by 20)	current or w/o pres	with
	0.67	0

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

For impact assessment areas
FL = delta x acres = 0.357

Delta = [with-current]
0.67

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 54 PD&E		Wetland 21 (Yellow)

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
640	PSS1C	Impact	1.437

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
New River/Bassett Brranch	Class III	N/A

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

Wetland 21 is located on the south side of SR 54, opposite of Wetland 20. It is located to the east/northeast of the ongoing Ashton Oaks development, which is located west of Ashton Oaks Blvd. There is a mobile home park and a few single family residences located to the east/southeast of this wetland. Linda Dr is also located near the east side of this wetland.

Assessment area description

Wetland 21 is a pocket wetland consisting of shrub and lower-lying subcanopy type species, including carolina willow,*Ludwigia sp.* , cattails, and *Juncus* sp.. There are quite a few trees (approx 15-25 ft in height) that border portions of the wetland. There were hydrologic indicators, such as adventitious rooting that the water levels in this wetland breach the surface by about 6 inches to 1 foot at times during the year.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
State Road 54 is located to the north, Ashton Oaks development is ongoing to the southwest, single family residences to the southeast, and wetland 20 to the north of SR 54 which is connected by a culvert.	This type of wetland is not unique to this area. There are many similar systems found within the project corridor and throughout Pasco County.

Functions	Mitigation for previous permit/other historic use
This wetland could provide habitat to song birds, amphibians and other wildlife. It also helps in filtering of nutrients and storage of runoff from the surrounding areas.	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)
two-toed amphiuma, lesser siren, greater siren, cricket frog, green treefrog, bull frog, pig frog, leopard frog, alligator, eastern mud snake, green water snake, banded water snake, striped swamp snake, black swamp snake, great blue heron, great egret, snowy egret, little blue heron, tricolored heron, bald eagle, northern harrier, wood stork	American alligator (SSC), Little blue heron (SSC), Snowy egret (SSC), Tricolored heron (SSC), White ibis (SSC), Sandhill crane (T), Wood stork (E)

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

There were songbirds heard within this wetland. No other obvious signs of wildlife were observed during the field visits.

Additional relevant factors:

This wetland is located within the Core Foraging Area (CFA) of wood storks, and could provide potential habitat for this species.

Assessment conducted by:	Assessment date(s):
Christopher Salicco	3/15/2007

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 54 PD&E		Wetland 21(Yellow)
Impact or Mitigation	Assessment conducted by:	Assessment date:
Impact	Christoper Salicco	3/15/07.

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

	w/o pres or current	with	
.500(6)(a) Location and Landscape Support	6	0	Wetland 21 is located on the south side of SR 54 directly adjacent to the toe of slope of the existing roadway. There is ongoing development for a large subdivision to the west/southwest at Ashton Oaks Blvd. There is a mobile home park and other single family residences located to the east/southeast of the wetland. There are some undisturbed/undeveloped upland located directly to the south along with a large wetland located further to the south. Wetland 21 is connected to Wetland 20 to the north by a culvert.
.500(6)(b)Water Environment (n/a for uplands)	7	0	Wetland 21 was dry during field visits. There were hydologic indicators showing that water breaches the surface and inundates this wetland at times during the year. There were stain lines on some of the older Carolina willow, along with adventitious rooting observed on some of the vegetation. The cattails were also a good indication that this wetland receives periods of inundation and water at or near the surface for most of the year. Wetland 21 is connected hydrologically to the north to Wetland 20, which allows for normal flows to go to both sides of SR 54. The overall hydrology has been impacted by SR 54 and the residential units located to the east/southeast. Also the ongoing development of Ashton Oaks will probably alter the hydrology in this area as well.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	7	0	Wetland 21 is a shrubby/herbaceous wetland that borders the toe of slope of SR 54. The vegetation within this wetland consists of Carolina willow, *Juncus* sp., *Ludwigia*, cattails, sedges and rushes. The southern border of the wetland is lined with oak trees that range from 10' to 25' in height. They provide a good buffer along this portion of the weltand. According to the stain lines on some of the vegetation, the adventitious rooting, and some of the species present, there are healthy levels of water at times of the year to sustain this wetland.

Score = sum of above scores/30 (if uplands, divide by 20)	current or w/o pres	with
	0.67	0

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

For impact assessment areas
FL = delta x acres = 0.963

Delta = [with-current]
0.67

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
State Road 54 - PD&E		Wetland 23-New River (Red)

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
510/653	R2OW	Impact	0.058

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
New River	Class III	N/A

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

This is an extension of New River. It is connected to Wetland 24 under SR 54 by a twin box culvert. The river runs north and south under SR 54. There appears to be a marsh area north of SR 54 and a small pond to the south of SR 54 that are connected by this waterbody. The crossing is surround by uplands with large oaks to the north and open uplands to the south.

Assessment area description

The area is usually inundated during the wet season and may be dry during the dry season. The south side of the crossing consists of Carolina willow, pickerelweed, water hyacinth and other aquatic species. The north side of the crossing consists of grass and wetland ground cover. The flow of water has carved steep slopes into portions of the adjacent uplands.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
The crossings passes under SR 54. To the north, there appears to be a large wet prairie/marsh as well as land used for grazing cattle and to the south, the creek flows toward a small pond. There is a church to the east of the crossing and undeveloped uplands to the west, north of SR 54.	There is no significant uniqueness to this crossing. However, it does connect the south portion of New River Basin with the northern portion of the basin. It is located within the 100-year flood zone.

Functions	Mitigation for previous permit/other historic use
Provides water flow to both the north and south of SR 54. May provide habitat and breeding grounds for wading birds and other wildlife, especially during the wet season. Also, this system provides water attenuation during rain events.	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)
salamanders, southern toad, cricket frog, bullfrog, tree frogs, alligator, river cooter, skinks, mud snake, rainbow snake, brown water snake, yellow-crowned night heron, wood duck, swallowtail kite, red-shouldered hawk, woodcock, barred owl, hairy woodpecker, Carolina wren, white-eyed vireo, cardinal, towhee, opossum, southeastern shrew, beaver, wood rat, cotton mouse, bear, raccoon, bobcat, little blue heron, snowy egret, tricolored heron, white ibis, sandhill crane, wood stork	American alligator (SSC), Little blue heron (SSC), snowy egret (SSC), tricolored heron (SSC), white ibis (SSC), Flroida sandhill crane (T), wood stork (E)

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

Numerous mollusks were obsereved within base of creek (empty shells), raccoon tracks were seen in mud, and a squirrel tree frog was observed.

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Christopher Salicco	Mar-07

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
State Road 54 - PD&E		Wetland 23 (Red)
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
Impact	Christopher Salicco	15-Mar

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

		w/o pres or current	with
.500(6)(a) Location and Landscape Support	This site is a flow channel for New River. Some of the surrounding area consists of undisturbed uplands with numerous live oaks as well as land used for grazing cattle. There is a church to the east of the impact area on the north side of SR 54, and there is developed residential land to the east and west of the impacted area. The flow channel provides hydrologic connectivity to the north and south of SR 54. The box culverts will be extended to the width of the proposed roadway. Water shall still be able to flow through to the north and south. The surrounding areas should have minimal impact as a result of the proposed roadway widening.	6	4
.500(6)(b)Water Environment (n/a for uplands)	Moving water is located at this site thougout most of the year. This is a flow channel that connects New River from the north to the south of SR 54. There are periods during the year when this crossing is relatively dry and there is no standing water, especially to the north of SR 54. Signs of aquatic life, such as numerous mollusk shells, were observed during a site visit in March, 2007. During this visit, the crossing was dry. The area has been impacted by the surrounding development, and the water can become stagnant during the dry season when there is no water flowing through this area. The box culvert shall be extended for the roadway widening, causing an increase in shading. The box culvert extension should have minimal effects to the water quality within this area. Hydologic connectivity between the north and south of SR 54 should not be affected.	7	3
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	The north side of SR 54 had minimal wetland species observed within the crossing. Most of the area is low-lying grass that may die when the area is innundated for long periods of time. There are oaks at the banks of the crossing. Area could be used as a breeding grounds and food source for different wildlife, especially when standing water is present. The minimal vegetation that is present would be destroyed by the installation of the box culvert. Water will be able to flow through the culvert, but the vegetation would not be able to thrive in this area.	4	0

Score = sum of above scores/30 (if uplands, divide by 20)	current or w/o pres	with
	0.57	0.23

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

For impact assessment areas
FL = delta x acres = 0.020

Delta = [with-current]
0.34

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
State Road 54 - PD&E		Wetland 23-New River (Yellow)

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
510/653	R2OW	Impact	0.03

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
New River	Class III	N/A

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

This is an extension of New River. It is connected to Wetland 24 under SR 54 by a twin box culvert. The river runs north and south under SR 54. There appears to be a marsh area north of SR 54 and a small pond to the south of SR 54 that are connected by this waterbody. The crossing is surround by uplands with large oaks to the north and open uplands to the south.

Assessment area description

The area is usually inundated during the wet season and may be dry during the dry season. The south side of the crossing consists of Carolina willow, pickerelweed, water hyacinth and other aquatic species. The north side of the crossing consists of grass and wetland ground cover. The flow of water has carved steep slopes into portions of the adjacent uplands.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
The crossings passes under SR 54. To the north, there appears to be a large wet prairie/marsh as well as land used for grazing cattle and to the south, the creek flows toward a small pond. There is a church to the east of the crossing and undeveloped uplands to the west, north of SR 54.	There is no significant uniqueness to this crossing. However, it does connect the south portion of New River Basin with the northern portion of the basin. It is located within the 100-year flood zone.

Functions	Mitigation for previous permit/other historic use
Provides water flow to both the north and south of SR 54. May provide habitat and breeding grounds for wading birds and other wildlife, especially during the wet season. Also, this system provides water attenuation during rain events.	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)
salamanders, southern toad, cricket frog, bullfrog, tree frogs, alligator, river cooter, skinks, mud snake, rainbow snake, brown water snake, yellow-crowned night heron, wood duck, swallowtail kite, red-shouldered hawk, woodcock, barred owl, hairy woodpecker, Carolina wren, white-eyed vireo, cardinal, towhee, opossum, southeastern shrew, beaver, wood rat, cotton mouse, bear, raccoon, bobcat, little blue heron, snowy egret, tricolored heron, white ibis, sandhill crane, wood stork	American alligator (SSC), Little blue heron (SSC), snowy egret (SSC), tricolored heron (SSC), white ibis (SSC), Flroida sandhill crane (T), wood stork (E)

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

Numerous mollusks were obsereved within base of creek (empty shells), raccoon tracks were seen in mud, and a squirrel tree frog was observed.

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Christopher Salicco	Mar-07

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
State Road 54 - PD&E		Wetland 23 (Yellow)
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
Impact	Christopher Salicco	15-Mar

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

.500(6)(a) Location and Landscape Support	w/o pres or current: 6	with: 4
This site is a flow channel for New River. Some of the surrounding area consists of undisturbed uplands with numerous live oaks as well as land used for grazing cattle. There is a church to the east of the impact area on the north side of SR 54, and there is developed residential land to the east and west of the impacted area. The flow channel provides hydrologic connectivity to the north and south of SR 54. The box culverts will be extended to the width of the proposed roadway. Water shall still be able to flow through to the north and south. The surrounding areas should have minimal impact as a result of the proposed roadway widening.		
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current: 7	with: 3
Moving water is located at this site thougout most of the year. This is a flow channel that connects New River from the north to the south of SR 54. There are periods during the year when this crossing is relatively dry and there is no standing water, especially to the north of SR 54. Signs of aquatic life, such as numerous mollusk shells, were observed during a site visit in March, 2007. During this visit, the crossing was dry. The area has been impacted by the surrounding development, and the water can become stagnant during the dry season when there is no water flowing through this area. The box culvert shall be extended for the roadway widening, causing an increase in shading. The box culvert extension should have minimal effects to the water quality within this area. Hydologic connectivity between the north and south of SR 54 should not be affected.		
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current: 4	with: 0
The north side of SR 54 had minimal wetland species observed within the crossing. Most of the area is low-lying grass that may die when the area is innundated for long periods of time. There are oaks at the banks of the crossing. Area could be used as a breeding grounds and food source for different wildlife, especially when standing water is present. The minimal vegetation that is present would be destroyed by the installation of the box culvert. Water will be able to flow through the culvert, but the vegetation would not be able to thrive in this area.		

Score = sum of above scores/30 (if uplands, divide by 20)	current or w/o pres: 0.57	with: 0.23

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

For impact assessment areas
FL = delta x acres = 0.010

Delta = [with-current]
0.34

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
State Road 54 - PD&E		Wetland 24-New River (Red)

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
510	R2OW	Impact	0.028

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
New River / Bassett Branch	Class III	N/A

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

This wetland is located just west of the newly constructed New River Blvd. The wetland is connected by three large culverts extending north and south of SR 54. The south of SR 54 is open rangeland, and to the north of SR 54, a new development is being constructed near this wetland. A new road has been constructed to the east of this wetland, and borders the east side of this wetland.

Assessment area description

The wetland is dominated by *Juncus spp, Pontederia cordata,* and *Ludwigia spp.* There was standing water present during the field review in March 2007. Development is ongoing on the northside of SR 54 and a road has been constructed along the eastside of the wetland. To the south of SR 54, the wetland is surrounded by open rangeland, which had cattle grazing on it.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
State Road 54 bisects the wetland, but it is connected by three large culverts. A new road has been constructed to the east of the wetland on the north side of SR 54. Development is ongoing in this area, especially to the north of this wetland. Aerial review shows that the wetland connects two larger wetlands, one to the north and one to the south	There is no significant uniqueness to this crossing. However, it does connect the south portion of New River Basin with the northern portion of the basin. It is located within the 100-year flood zone.

Functions	Mitigation for previous permit/other historic use
Provides water flow to both the north and south of SR 54. May provide habitat and breeding grounds for wading birds and other wildlife. Also, this system provides water attenuation during rain events and helps to filter nutrients.	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)
salamanders, southern toad, cricket frog, bullfrog, tree frogs, American alligator, skinks, mud snake, rainbow snake, brown water snake, yellow-crowned night heron, great blue heron, great egret, snowy egret, red-shouldered hawk, little blue heron, tricolored heron, black-crowned night-heron, northern harrier, sandhill crane, raccoon, river otter	American alligator, raccoon, wading birds, salamanders, various frogs and other amphibians, sandhill crane

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

No species were observed utilizing this wetland at the time of inspection in March 2007. Raccoon tracks and mollusk shells were observed within this wetland.

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Christopher Salicco	Mar-07

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
State Road 54 - PD&E		Wetland 24 (Red)
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
Impact	Christopher Salicco	15-Mar

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

.500(6)(a) Location and Landscape Support w/o pres or current: 6 with: 3	This portion of the river to the south of SR 54 is adjacent to a mobile home park to the east and a residential unit located to the west. The flow channel continues to the south. It is connected to the north of SR 54 by a twin box culvert. That area opens up into a large marsh. To the south of the project area, the river continues into an area that consists of single family residential units. The box culvert will be extended to the width of the roadway improvements, but will continue to allow water to flow to the north and south. The impact will not be as great as if this area were to be filled to the height of the existing road.
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current: 7 with: 3	There was some standing water observed during the site visits in March 2007, and there were high water levels observed in September 2006. The water that was present in March was stagnant, since the river was not flowing. The area is usually inundated. Indications of this inundation were a thick organic/muck layer, aquatic/wetland species that were present, and mollusk shells observed throughout the channel. The river is continuous to the north of SR 54 by a twin box culvert under the roadway. The box culvert will be extended to the width of the roadway improvements reducing the hydrologic function of this area, but maintaining a steady flow to the north and south of SR 54.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community w/o pres or current: 7 with: 0	There were many aquatic/wetland vegetation species observed within the south side of SR 54. Vegetation consisted of Carolina willow, pickerelweed, water hyacinth, beggars tick, and water primrose. Moving water is usually found within this portion of the crossing, but was relatively dry during the March 2007 visits. Mollusks shells were observed within the base of the flow channel and along the banks. There was a thick layer of organic material and mucky soil at the surface. The existing box culvert will be extended to the width of the proposed roadway improvements. This will eliminate all vegetation from growing in this area. Water will continue to flow to the north and south with the widening of the culvert, not eliminating all hydrologic function.

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	0.67
with	0.2

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

For impact assessment areas
FL = delta x acres = 0.013

Delta = [with-current]
0.47

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
State Road 54 - PD&E		Wetland 24-New River (Yellow)

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
510	R2OW	Impact	0.062

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
New River / Bassett Branch	Class III	N/A

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

This wetland is located just west of the newly constructed New River Blvd. The wetland is connected by three large culverts extending north and south of SR 54. The south of SR 54 is open rangeland, and to the north of SR 54, a new development is being constructed near this wetland. A new road has been constructed to the east of this wetland, and borders the east side of this wetland.

Assessment area description

The wetland is dominated by *Juncus spp, Pontederia cordata,* and *Ludwigia spp.* There was standing water present during the field review in March 2007. Development is ongoing on the northside of SR 54 and a road has been constructed along the eastside of the wetland. To the south of SR 54, the wetland is surrounded by open rangeland, which had cattle grazing on it.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
State Road 54 bisects the wetland, but it is connected by three large culverts. A new road has been constructed to the east of the wetland on the north side of SR 54. Development is ongoing in this area, especially to the north of this wetland. Aerial review shows that the wetland connects two larger wetlands, one to the north and one to the south	There is no significant uniqueness to this crossing. However, it does connect the south portion of New River Basin with the northern portion of the basin. It is located within the 100-year flood zone.

Functions	Mitigation for previous permit/other historic use
Provides water flow to both the north and south of SR 54. May provide habitat and breeding grounds for wading birds and other wildlife. Also, this system provides water attenuation during rain events and helps to filter nutrients.	N/A

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salamanders, southern toad, cricket frog, bullfrog, tree frogs, American alligator, skinks, mud snake, rainbow snake, brown water snake, yellow-crowned night heron, great blue heron, great egret, snowy egret, red-shouldered hawk, little blue heron, tricolored heron, black-crowned night heron, northern harrier, sandhill crane, raccoon, river otter	American alligator, raccoon, wading birds, salamanders, various frogs and other amphibians, sandhill crane

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

No species were observed utilizing this wetland at the time of inspection in March 2007. Raccoon tracks and mollusk shells were observed within this wetland.

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Christopher Salicco	Mar-07

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
State Road 54 - PD&E		Wetland 24 (Yellow)
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
Impact	Christopher Salicco	15-Mar

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

.500(6)(a) Location and Landscape Support w/o pres or current: 6 with: 3	This portion of the river to the south of SR 54 is adjacent to a mobile home park to the east and a residential unit located to the west. The flow channel continues to the south. It is connected to the north of SR 54 by a twin box culvert. That area opens up into a large marsh. To the south of the project area, the river continues into an area that consists of single family residential units. The box culvert will be extended to the width of the roadway improvements, but will continue to allow water to flow to the north and south. The impact will not be as great as if this area were to be filled to the height of the existing road.
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current: 7 with: 3	There was some standing water observed during the site visits in March 2007, and there were high water levels observed in September 2006. The water that was present in March was stagnant, since the river was not flowing. The area is usually inundated. Indications of this inundation were a thick organic/muck layer, aquatic/wetland species that were present, and mollusk shells observed throughout the channel. The river is continuous to the north of SR 54 by a twin box culvert under the roadway. The box culvert will be extended to the width of the roadway improvements reducing the hydrologic function of this area, but maintaining a steady flow to the north and south of SR 54.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community w/o pres or current: 7 with: 0	There were many aquatic/wetland vegetation species observed within the south side of SR 54. Vegetation consisted of Carolina willow, pickerelweed, water hyacinth, beggars tick, and water primrose. Moving water is usually found within this portion of the crossing, but was relatively dry during the March 2007 visits. Mollusks shells were observed within the base of the flow channel and along the banks. There was a thick layer of organic material and mucky soil at the surface. The existing box culvert will be extended to the width of the proposed roadway improvements. This will eliminate all vegetation from growing in this area. Water will continue to flow to the north and south with the widening of the culvert, not eliminating all hydrologic function.

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.67	0.2

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

For impact assessment areas
FL = delta x acres = 0.029

Delta = [with-current]
0.47

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

APPENDIX C

Agency Coordination &
FDOT Contractor Requirements for
T&E Species

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
6620 Southpoint Drive, South
Suite 310
Jacksonville, Florida 32216-0912

IN REPLY REFER TO:

FWS LOG NO. 41910-2008-I-0386

June 16, 2008

Manuel Santos, E.I.
Project Manager
Florida Department of Transportation
11201 N. McKinley Drive, MS 7-500
Tampa, FL 33612

Dear Mr. Santos:

Our office has reviewed your correspondence requesting informal consultation and the accompanying *Draft Wetland Evaluation and Biological Assessment Report* for the SR 54 improvements. The applicant proposes widening the existing two-lane roadway to a four-lane and six-lane facility, from CR 577 to CR 579/CR 54, in Pasco County. The study corridor is approximately 4.5 miles. The Service submits 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.*), and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 *et seq.*).

ENDANGERED SPECIES ACT

The federally listed species identified in the correspondence are the threatened eastern indigo snake (*Drymarchon corais couperi*) and the endangered wood stork (*Mycteria americana*).

In regards to the eastern indigo snake, movements over large areas of fragmented habitats undoubtedly expose snakes to increased road mortality and likelihood of adverse human contact. In a recent Florida telemetry study, vehicles accounted for 40% of the in-field mortality to this species. The Service recommends implementing the *Standard Protection Measures for the Eastern Indigo Snake* (1999) during construction of the project. Those measures can be found at the Service's Jacksonville Ecological Service Field Office website at http://northflorida.fws.gov/IndigoSnakes/east-indigo-snake-measures-071299.htm. As a result, the project may affect, but is not likely to adversely affect, the eastern indigo snake.

The wetland impacts will occur within the Core Foraging Area (CFA) of existing wood stork colonies. The CFA in central Florida is defined as suitable foraging habitat within a distance of 15 miles (24 km) from a colony. The applicant proposes to mitigate the minor wetland impacts through Florida Statute 373.4137 or other off-site regional mitigation

banks. The mitigation should be in-kind and within the same watershed basin as the proposed impacts. The overall effects on wood storks will be insignificant and discountable. Therefore, the project may affect, but is not likely to adversely affect, the wood stork.

Although this does not represent a biological opinion as described in section 7 of the Act, it does fulfill the requirements of the Act and no further action is required. If modifications are made to the project or additional information becomes available on listed species, reinitiating consultation may be required.

FISH AND WILDLIFE COORDINATION ACT

The Service concludes after reviewing the extent of the proposed project, the proposed action will not significantly affect other fish and wildlife resources. If you have any questions regarding this response, contact Mr. Todd Mecklenborg at (727) 820-3705.

Sincerely,

David L. Hankla
Field Supervisor

American Consulting Engineers of Florida, LLC
2818 Cypress Ridge Blvd, Suite 200
Wesley Chapel, Florida 33544
Tel 813.435.2600 • Fax 813.435.2601
american@ace-fla.com • www.ace-fla.com

TELEPHONE CALL RECORD

Date: 3/6/09 **Date Issued:** 3/6/09

Time: 12:10 PM **Issued by:** Corey Carter

Contact: Todd Mecklenborg **Phone #:** 727-820-3705

Company: USFWS

Project: SR 54 PD&E

Subject: Wood Stork CFA Mitigation

The following notes reflect our understanding of the discussions and decisions made during this telephone conversation. If you have any questions, additions or comments, please contact us at the above address. We will consider the record to be accurate unless written notice is received within 10 working days of the date issued.

I spoke with Mr. Todd Mecklenborg with the USFWS today regarding the mitigation for the impacts to the foraging area Wood Stork. I explained to him the comment we have received from FHWA. Mr. Mecklenborg stated that they have been accepting the Senate Bill as mitigation for impacts to the foraging area for the Wood Stork. He stated that they do encourage on site mitigation, if possible, but that the Senate Bill is an acceptable form of mitigation. He told me to use this in the response to FHWA regarding this issue and that it would be acceptable.

American Project #: 5067054

Copies To: File

American Consulting Engineers of Florida, LLC
4111 Land O' Lakes Boulevard, Suite 210
Land O' Lakes, Florida 34639
Tel 813.996.2800 • Fax 813.996.1908
american@ace-fla.com • www.ace-fla.com

SWFWMD PRE APPLICATION MEETING MINUTES

Meeting Date: Feb 6, 2008 **Date Issued:** Mar 13, 2008

Location: SWFWMD Brooksville Office

Project Name: S.R. 54 PD&E Study from Curley Road to Morris Bridge Road

Purpose: To discuss stormwater management permitting criteria

Notes by: Michael Ryan **American Project #:** 5067054

Copies to: Attendees, Jeff Novotny, Bill Adams, File: **5067054.B.03**

Attendees	Representing	Phone	Fax or e-mail
Leonard Bartos	SWFWMD	352-796-7211	
David Urban	SWFWMD	352-796-7211	
John Kilgore	American Consulting Engineers	727-499-5764	jkilgore@ace-fla.com
Larry Weatherby	American Consulting Engineers	813-496-7409	lweatherby@ace-fla.com
Michael Ryan	American Consulting Engineers	813-996-2800	mryan@ace-fla.com

The following notes reflect our understanding of the discussions and decisions made at this meeting. If you have any questions, additions or comments, please contact us at the above address. We will consider the minutes to be accurate unless written notice is received within 10 working days of the date issued.

Project Introduction

The meeting began at about 1:05 p.m. American distributed a project fact sheet and an aerial overview sheet showing the project limits and currently proposed typical sections.

Existing Drainage Concerns

SWFWMD indicated that they have some issues with the permitted stormwater management system for the Wiregrass development concerning flood elevations and stormwater modeling. SWFWMD recommended that Andrea Bolling with SWFWMD be contacted during the design phase to discuss any proposed stormwater management system designs within this area. The Watergrass development should also be discussed with Andrea.

If the Wiregrass Development chooses to design their system to accept drainage from the roadway to meet development conditions as apposed to providing a separate facility there are concerns that the current design is not adequate. American's current evaluation identifies a separate stormwater management pond facility, not connected to the Wiregrass Development SWM facility.

SWFWMD identified that there are areas within the New River Basin with flooding issues. American was advised to contact Richard Mayor and Dave Arnold at SWFWMD regarding Trout Creek Basin, Cypress Creek Basin and New River Basin.

THIS SPACE IS FORMATTED TO FACILITATE AND GUIDE THE DIALOGUE DURING A PRE-APPLICATION MEETING AND PROVIDE NOTE TAKING SPACE. A SUPPLEMENTAL "PROMPT LIST" OF DISCUSSION ITEMS IS ATTACHED, WHICH SHOULD BE EXAMINED BY THE APPLICANT PARTIES PRIOR TO THE MEETING TO IDENTIFY TOPICS FOR DISCUSSION.

Southwest Florida Water Management District
Resource Regulation Division

ERP Pre-Application Meeting NOTES

FILE No.

Date: 2.6.08
Time: 1:00 PM
Project Name: SR 54
Attendees: DANE URBAN
LEN PODRATOS
MIKE RYAN

County: PASCO
Total Land acreage: 90 Ac.
Prior Onsite/Offsite Permit activity:

S/T/R: 9,10,13,14,15/26/20
Project acreage: 18/26/21
90 Ac.
4.5 miles

Project Overview:
Widening of an existing two lane. to 4 lane & 6 lane.

Site Information Discussion: (Site Topography, SHW Levels, Flood plain Elevations, Conveyance and Storage, Tailwater Conditions, Adjacent Offsite Contributing Sources, Receiving Waterbody, Karst Formations, Existing Wells, Contaminated Sites / Coordination w/ FDEP, etc.)

- Open Basin

Environmental Discussion: (Wetlands Onsite, Wetlands On Adjacent Properties, Site Visit, Delineation, Permanent/Temporary Impacts, SHWL, Wetland Hydrology, Drawdown Issues, Alternatives Analysis, Elimination/Reduction, Secondary and Cumulative Impacts, T&E species, Conservation Easements, Buffers, Mitigation Options, Mitigation Costs, OFW, Aquatic Preserve, etc.)

- WETLANDS — 7 / ACRE IMPACTS — . NOT DISCUSSED
— SENATE BILL MITIGATION — POSSIBLE ??

Sovereign Lands Discussion: (Title Determination, Delegated Authority, Correct Form of Authorization, Content of Application, Assessment of Fees, Coordination with FDEP, etc.)

- NEW RIVER (POSSIBLE) PROBABLY NOT

Water Quantity Discussion: (Basin Description, Design Storm Event, Pre/Post Volume, Pre/Post Discharge, Local Requirements, Other)

- 25yr. Assumed design for 6 lane — Build 4 & 6
Flood plain comp reqd. Cup for cup.

Water Quality Discussion: (Type of Stormwater Treatment, Technical Characteristics, Non-presumptive Alternatives, Construction Phase Water Management and Erosion Control, Contaminated Sites, Ground Water Protection, etc.)

- Wet Systems

Discuss with Voytek regarding sensitive basin criteria and event frequency.
Adjacent property owner notification for taking
Electronic copy

Operation And Maintenance, Legal Information: (Ownership or Perpetual Control, Eminent Domain, Work on District Property, Inspections During Const., O&M Entity, System O&M Instructions, Homeowner Association Documents, Coastal Zone Requirements, Public Safety, etc.)

- County

Application Type And Fee Required: (40D-4.041Permits Required, 40D-1.607 Fee Schedule, etc.)

- Individual 2500. —

Other: (Future Pre-Application Meetings, Fast Track, Submittal Date, Construction Start Date, Required District Permits - WUP, WOD, Well Construction, etc.)

-

Disclosure: The District ERP pre-application meeting process is a service made available to the public to assist interested parties in preparing for submittal of a complete permit application. Information shared at pre-application meetings is superseded by the actual permit application submittal. District permit decisions are based upon information submitted during the application process and Rules in effect at the time the application is complete.

The following person was present and authored these ERP Pre-Application Meeting NOTES on behalf of the SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT:

District Staff Representative	Name and Title
Signed	Date

Calendar Entry

Meeting

☐ Notify me ☐ Mark Private ☐ Pencil In

Subject	Mike Ryan- 813-996-2800				
When	Starts	Wed 02/06/2008	01:00 PM	30 mins	
	Ends	Wed 02/06/2008	01:30 PM		
Invitees	Required (to)	Len Bartos/BKV_REG/swfwmd@swfwmd, Wojciech Mroz/BKV_REG/swfwmd@swfwmd			
	Optional (cc)	mryan@ace-fla.com			

Chair	Pre-Application Brooksville-Regulation/BKV_REG/swfwmd
	Sent By Zulima Lugo
Where	Location
Categorize	

Description

Name: Mike Ryan
Address: Curley Rd. to Morris Bridge Rd.
Attendees: WMM,LFB
Project Name: SR 54 P, D, & E

Phone: 813-996-2800
County: Pasco
STR: 9,10,13,14,15/26S/20E & 18/26S/21E

Your Notes

TROUT CREEK, CYPRESS CREEK
NEW RIVER WATERSHEDS
— SOURCE OF FLOOD INFO —
RICHARD BAYER
& DAVE ARNOLD

New Requirement → ALSO → NEW RIVER DRI (HYDRO)
& WIREGRASS (ANDREA)
& WATERGRASS (ANDREA)

American Consulting Engineers of Florida, LLC
210 Crystal Grove Blvd. • Lutz, Florida 33548
Tel 813.496.7400 • Fax 813.496.7401
american@ace-fla.com • www.ace-fla.com

October 19, 2006

Christina Williams
Florida Fish and Wildlife Conservation Commission
620 South Meridian St
Mail Station 5B6
Tallahassee, FL 32399-1600

Re: Request for natural resource assessment on the SR 54 PD&E Project. Located in Sections 9, 10, 13, 14, 15, Township 26S, Range 20E and Section 18, Township 26S, Range 21E of Pasco County, Florida.

Dear Christina Williams:

American Consulting Engineers of Florida, LLC (American) is conducting a review for listed species occurrence records, critical habitats, and Strategic Habitat Conservation Areas within the above-referenced corridor study area. The project involves a Project Development and Environment study for State Road 54 in Pasco County from west of Curley Road to Morris Bridge Road including an Biological Assessment.

American is requesting an assessment of the flora and fauna of this site. Included with this request letter is a location map for this site. We are interested in the results of your preliminary survey assessing any known or potentially significant ecological resources on the site that may warrant further study. Ideally, we would like information for at least one mile in any direction of the highlighted area.

I would greatly appreciate as prompt attention to this sites file check as you can offer. If you need any other information or have any questions about this natural resources assessment, please call me at (813) 496-7405 or email me at rcarter@ace-fla.com.

Thank you.

Sincerely,
American Consulting Engineers of Florida, LLC

Corey Carter
Environmental Scientist

cc: file, Larry Weatherby, Jeff Novotny

F:\Project\5067054\FileCabinet\E. Environmental\E.01 Agency Coordination\LET FWC listed spp 061019.doc

SR 54 PD&E Study
from Curley Road to Morris Bridge Road
Pasco County, Florida
FPID: 416561-1-22-01
USGS Quadrangle: Wesley Chapel and Zephyrhills

Project Location Map

Legend

Approximate Study Area

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

Fish and Wildlife Research Institute
(850) 488-5460 Fax: (850) 413-0381

October 30, 2006

Mr. Corey Carter
American Consulting
Engineers of Florida, LLC
210 Crystal Grove Blvd.
Lutz, Florida 33548

Dear Mr. Carter:

This letter is in response to your request for listed species occurrence records and critical habitats for your project (PD&E Study State Road 54) located in Pasco County, Florida. Records from The Florida Fish and Wildlife Conservation Commission's database indicate that listed species occurrence data are located within or adjacent to the project area. Enclosed are 8.5 x 11 maps showing listed species locations, biodiversity hotspots, priority wetlands for listed species, SHCA's for the Burrowing owl, and land cover in close proximity of the project area.

Please note that our database does not necessarily contain records of all listed species that may occur in a given area. Our data is limited to sites that we surveyed or sites that others have surveyed and provided us with their data. Also, data on certain species, such as gopher tortoises, are not entered into our database on a site-specific basis. **Therefore, one should not assume that an absence of occurrences in our database indicates that species of significance do not occur in the area.**

The Florida Natural Areas Inventory (FNAI) maintains a separate database of listed plant and wildlife species, please contact FNAI directly for specific information on the location of element occurrences within the project area. Because FNAI is funded to provide information to public agencies only, you may be required to pay a fee for this information. County-wide listed species information can be located at their website (http://www.fnai.org).

Please credit the Florida Fish and Wildlife Conservation Commission in any publication or presentation of these data. If you have any questions or further requests, please contact me at (850) 488-6661 or gisrequests@myfwc.com.

Sincerely,

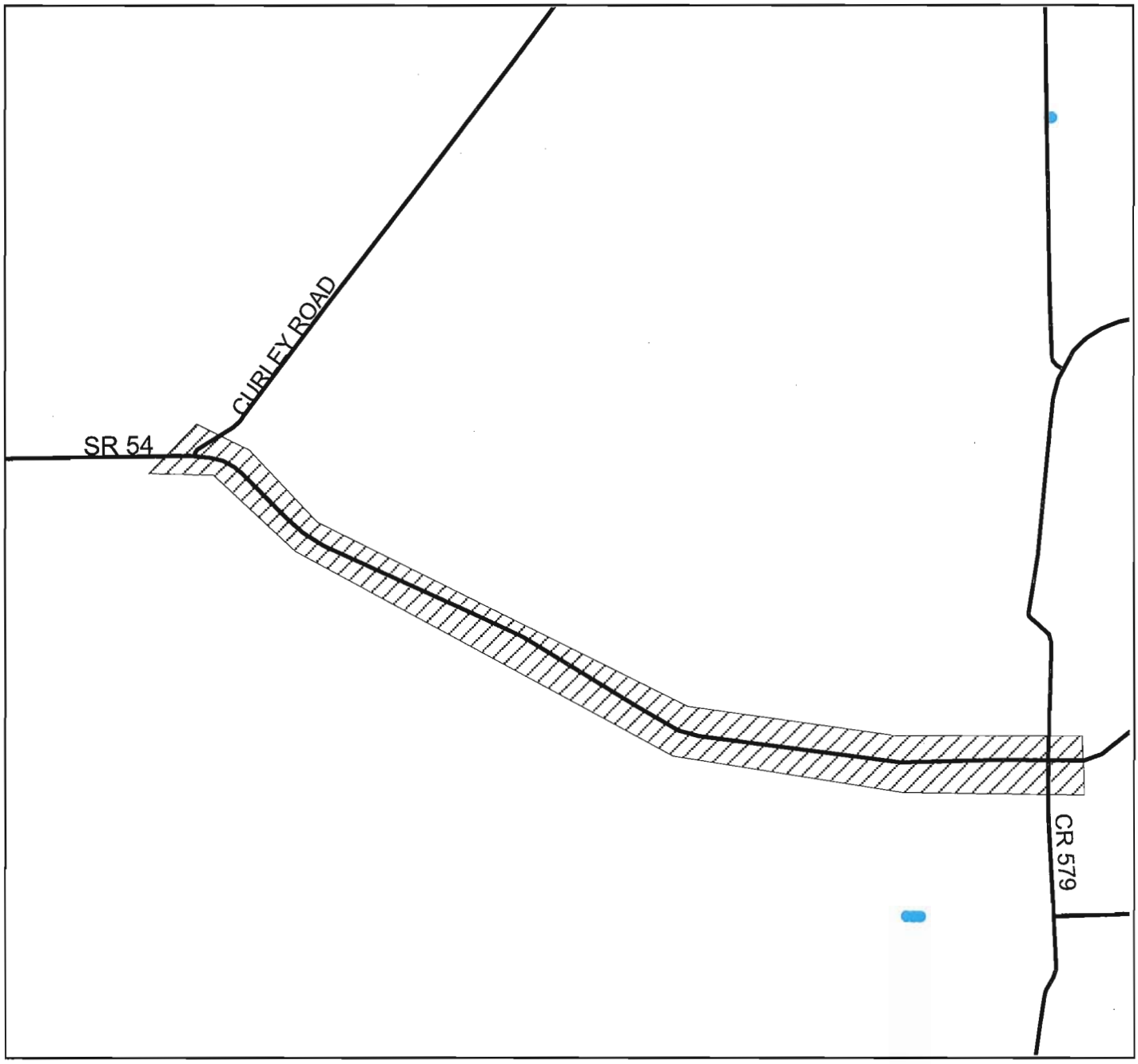
Jan Stearns

Jan Stearns
Staff Assistant

js
ENV 8-7/8
2006_4255
Enclosures

Species Occurrence

PD&E Study State Road 54



Project Site
Flcnty
Major Roads
Wildlife observations
Burrowing owl

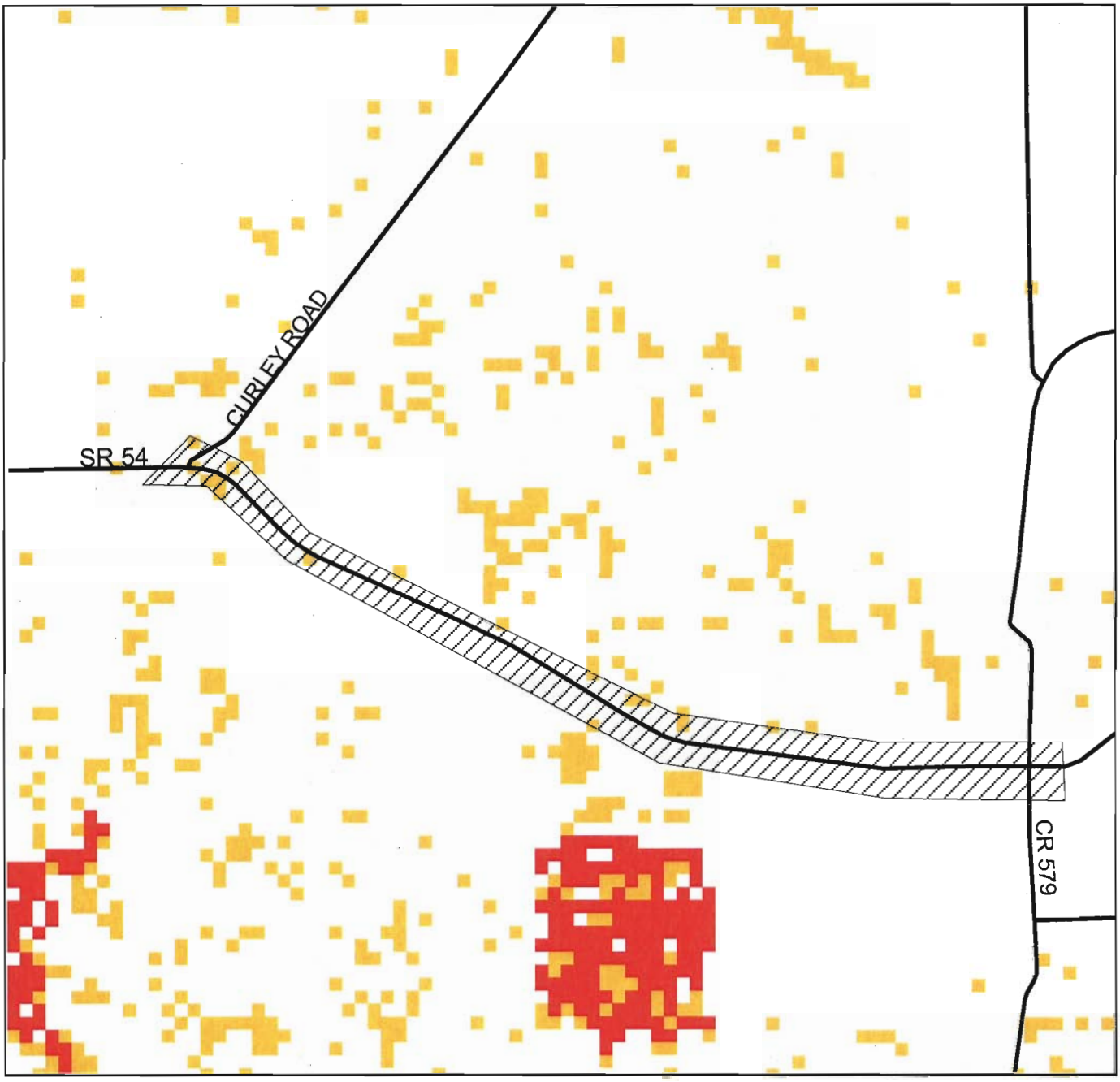
0.3 0 0.3 0.6 0.9 1.2 1.5 1.8 Miles

N

2006_4255

Biodiversity Hot Spots

PD&E Study State Road 54



Project Site
Flcnty
Major Roads
3 - 4 Focal Species
5 - 6 Focal Species
7+ Focal Species

0.5 0 0.5 1 1.5 Miles

N

2006_4255

Priority Wetlands

PD&E Study State Road 54

Project Site
Flcnty
Major Roads
1-3 species, wetland habitat
4-6 species, wetland habitat
7-9 species, wetland habitat
10-11 species, wetland habitat
1-3 species, upland habitat
4-6 species, upland habitat

0.3 0 0.3 0.6 0.9 1.2 Miles

N

2006_4255

Strategic Habitat Conservation Areas

PD&E Study State Road 54

Project Site
Flcnty
Major Roads
Strategic Habitat Conservation Areas

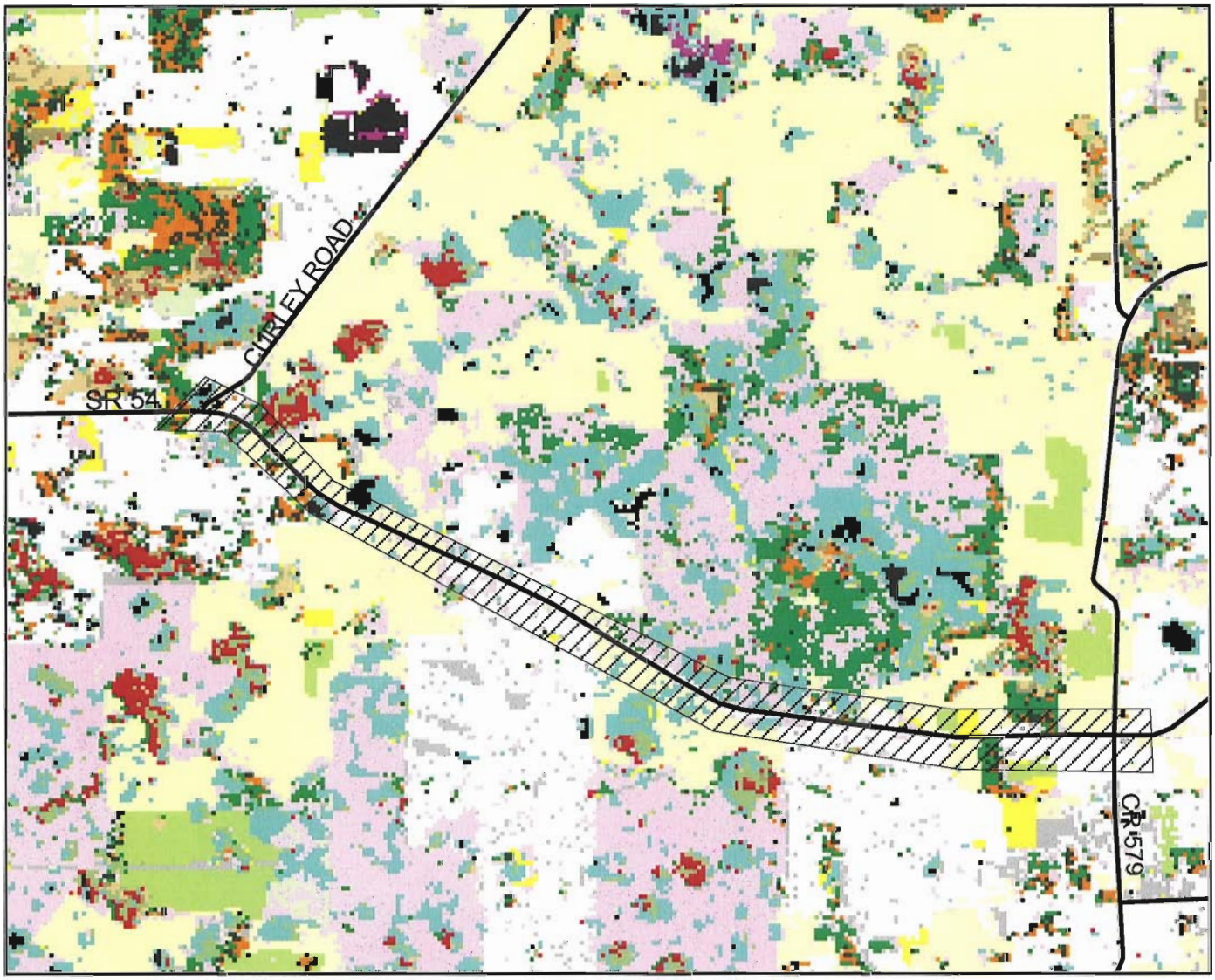
N

0.3 0 0.3 0.6 0.9 1.2 Miles

2006_4255

Florida Land Cover - 2003

PD&E Study State Road 54



Project Site
Flcnty
Major Roads

- 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
- Other Ag
- Citrus
- Exotic Plants
- High and Low Impact Urban
- Extractive

0.3 0 0.3 0.6 0.9 1.2 1.5 1.8 Miles

N

2006_4255

Carter, R. Corey

From: Terry_Gilbert@URSCorp.com
Sent: Thursday, March 26, 2009 3:33 PM
To: Carter, R. Corey
Subject: Re: SR 54 PD&E Trout Creek ETDM 6651Comment

I have reviewed the information you provided including the maps related to our comments which were submitted in October 2005 on ETDM 6651 to expand SR-54 from two to four lanes from Curly Road to Morris Bridge Road in Pasco County. In our comments we had requested an analysis of habitat connectivity needs along SR-54. We now note that there have been no public conservation lands established in this area to provide long-term protection of regional habitat systems associated with a wildlife underpass. Furthermore, past and recent residential development has significantly encroached into areas south of the SR-54 project area so that a habitat connectivity structure is not now an issue. Our letter also called for compensatory mitigation for wetland and upland habitat loss be carried out in the undisturbed areas of the Trout Creek system located southwest of SR-54. If wetland impacts are mitigated under the provisions of Chapter 373.4137 F.S. (Senate Bill 1986), the replacement wetlands should be functionally equivalent; equal to or of higher functional value; and as or more productive as the impacted wetlands. Land acquisition and restoration of appropriate tracts adjacent to lands previously placed under conservation easement or located adjacent to large areas of jurisdictional wetlands that currently serve as regional core habitat areas has been an appropriate and routine way to address this issue in the past. An all-important focus of the selection process for mitigation lands for this project should include a strong consideration of the quality, functionality, and suitability of the replacement habitat for the birds, mammals, amphibians, and reptiles which will be impacted during future construction work in the project area. If the above wetland mitigation recommendation is made a project stipulation in the committments section of the PD&E Study, for consideration by the Southwest Florida Water Management District during their wetland mitigation evaluation for the Environmental Resources Permit, no further issues remain on the project. Please e-mail me a response for the files if this is agreeable. Thanks you for the very good habitat and drainage basin maps, and other coordination and information provided on the project.

Terry Gilbert
Consulting Wildlife Biologist
URS Corporation
1625 Summit Lake Drive
Tallahassee, FL 32327
Tel. Direct:: (850) 402-6311
Cell: (850) 251-6439
Fax: (850) 402-6490
E-mail: Terry_Gilbert@urscorp.com

"Carter, R. Corey" <RCarter@ace-fla.com>

"Carter, R. Corey" <RCarter@ace-fla.com>

To<terry_gilbert@urscorp.com>
cc
SubjectSR 54 PD&E Trout Creek ETDM Comment

03/24/2009 07:48 AM

Mr. Gilbert

As we had discussed on the phone Wednesday, March 18, American is currently working to resolve a comment received from FHWA on the SR 54 PD&E Document. This limits of this PD&E study are from Curley Road to

Morris Bridge Road in Pasco County, Florida (see attached map). This comment is specifically referring to a statement made by the FFWCC during the ETDM process for this project. This comment referred to Trout Creek and its basin and the request for the PD&E to consider the possibility of providing wildlife movement across SR 54 within the basin. SR 54 acts as the dividing line in our project area with the Trout Creek Basin located to the south and the New River Basin to the north. As we discussed on the phone, this project is within a heavily developed area of SR 54 with development continuing to this day. We have looked into the possibility of providing this movement during our field reviews and development of the Wetland and Biological Assessment Report (WEBAR). There is an existing 2x30-inch crossdrain pipes under SR 54 that drains the north side of SR 54 to the south near the northern extent of this basin, however the wetland/natural area this drains to within the Trout Creek Basin is completely isolated from the large expansive natural corridor located further to the south. The system of wetlands within this basin located adjacent to SR 54 have been heavily disturbed and bisected by residential development including Saddlebrook and numerous other homes around Wesley Chapel Loop, so there is not a direct connection from SR 54 to Trout Creek itself. It is possible that historically, the connection up to SR 54 was more prominent. We don't see that a wildlife crossing so far from the actual resource is beneficial to wildlife in the area, nor would this be cost-beneficial to construct. Also please note the attached map that shows the extent of the Trout Creek Basin and an aerial of the area depicting what I have discussed above. SR 54 acts as the dividing line in our project area with the Trout Creek Basin located to the south and the New River Basin to the north. As we discussed I would appreciate you taking a look at this information and providing American with a brief email concurrence on this issue at your earliest convenience.

Thank You,

Corey Carter
American Consulting Engineers
2818 Cypress Ridge Blvd, Suite 200
Wesley Chapel, FL 33544
Email: ccarter@ace-fla.com
Direct: 813.435.2643
Cell: 813.927.5736
Fax: 813.435.2701
[attachment "TroutCreek.pdf" deleted by Terry Gilbert/Tallahassee/URSCorp]
[attachment "SR 54 Drainage Basins.pdf" deleted by Terry Gilbert/Tallahassee/URSCorp]

American Consulting Engineers of Florida, LLC
4111 Land O' Lakes Boulevard, Suite 210
Land O' Lakes, Florida 34639
Tel 813.996.2800 • Fax 813.996.1908
american@ace-fla.com • www.ace-fla.com

October 19, 2006

Edwin Abbey
Environmental Reviewer
Florida Natural Areas Inventory
1018 Thomasville Road, Suite 200-C
Tallahassee, FL 32303

Re: Request for natural resource assessment on the SR 54 PD&E Project. Located in Sections 9, 10, 13, 14, 15, Township 26S, Range 20E and Section 18, Township 26S, Range 21E of Pasco County, Florida.

Dear Edwin Abbey:

American Consulting Engineers of Florida, LLC (American) is conducting a review for listed species occurrence records, potential natural areas, and other significant ecological resources within the above-referenced corridor study area. The project involves a Project Development and Environment study for State Road 54 in Pasco County from west of Curley Road to Morris Bridge Road including a Biological Assessment.

American is requesting an assessment of the flora and fauna of this site. Included with this request letter is a location map for this site. We are interested in the results of your preliminary survey assessing any known or potentially significant ecological resources on the site that may warrant further study. Ideally, we would like information for at least one mile in any direction of the project limits indicated on the enclosed map.

I would greatly appreciate as prompt attention to this sites file check as you can offer. If you need any other information or have any questions about this natural resources assessment, please call me at (813) 996-2800 ext 5287 or email at anna.peterfreund@ace-fla.com.

Thank you.

Sincerely,
American Consulting Engineers of Florida, LLC
Anna Peterfreund

Anna B. Peterfreund
Environmental Scientist

cc: file, Larry Weatherby, Jeff Novotny

(This page intentionally left blank)

FLORIDA
Natural Areas
INVENTORY

1018 Thomasville Road
Suite 200-C
Tallahassee, FL 32303
850-224-8207
fax 850-681-9364
www.fnai.org

October 30, 2006

Anna B. Peterfreund
American Consulting Engineers of Florida, LLC.
4111 Land O' Lakes Boulevard, Suite 210
Land O' Lakes, FL 34639

Dear Ms. Peterfreund:

Thank you for your request for information from the Florida Natural Areas Inventory (FNAI). We have compiled the following information for your project area.

Project:	Project Development and Environment Study for State Road 54
Date Received:	October 23, 2006
Location:	Township 26 S, Range 20 E, Sections 9, 10, & 13-15 Township 26 S, Range 21 E, Section 18 Pasco County

Element Occurrences

A search of our maps and database indicates that currently we have three Element Occurrences mapped within the vicinity of the study area (see enclosed map and element occurrence table). Please be advised that a lack of element occurrences in the FNAI database is not a sufficient indication of the absence of rare or endangered species on a site.

The Element Occurrences data layer includes occurrences of rare species and natural communities. The map legend indicates that some element occurrences occur in the general vicinity of the label point. This may be due to lack of precision of the source data, or an element that occurs over an extended area (such as a wide ranging species or large natural community). For animals and plants, Element Occurrences generally refer to more than a casual sighting; they usually indicate a viable population of the species. Note that some element occurrences represent historically documented observations which may no longer be extant.

Likely and Potential Rare Species

In addition to documented occurrences, other rare species and natural communities may be identified on or near the site based on habitat models and species range models (see enclosed Biodiversity Matrix Report). These species should be taken into consideration in field surveys, land management, and impact avoidance and mitigation.

FNAI habitat models indicate areas, which based on landcover type, offer suitable habitat for one or more rare species that is known to occur in the vicinity. Habitat models have been developed for approximately 300 of the most rare species tracked by the Inventory, including all federally listed species.

Florida Resources
and Environmental
Analysis Center

Institute of Science
and Public Affairs

The Florida State University

FNAI species range models indicate areas that are within the known or predicted range of a species, based on climate variables, soils, vegetation, and/or slope. Species range models have been developed for approximately 340 species, including all federally listed species.

The FNAI Biodiversity Matrix Geodatabase compiles Documented, Likely, and Potential species and natural communities for each square mile Matrix Unit statewide.

The Inventory always recommends that professionals familiar with Florida's flora and fauna should conduct a site-specific survey to determine the current presence or absence of rare, threatened, or endangered species.

Please visit www.fnai.org/trackinglist.cfm for county or statewide element occurrence distributions and links to more element information.

The database maintained by the Florida Natural Areas Inventory is the single most comprehensive source of information available on the locations of rare species and other significant ecological resources. However, the data are not always based on comprehensive or site-specific field surveys. Therefore, this information should not be regarded as a final statement on the biological resources of the site being considered, nor should it be substituted for on-site surveys. Inventory data are designed for the purposes of conservation planning and scientific research, and are not intended for use as the primary criteria for regulatory decisions.

Information provided by this database may not be published without prior written notification to the Florida Natural Areas Inventory, and the Inventory must be credited as an information source in these publications. FNAI data may not be resold for profit.

Thank you for your use of FNAI services. If I can be of further assistance, please give me a call at (850) 224-8207.

Sincerely,

Jason A. Griffin

Jason A. Griffin
Data Services Coordinator

encl

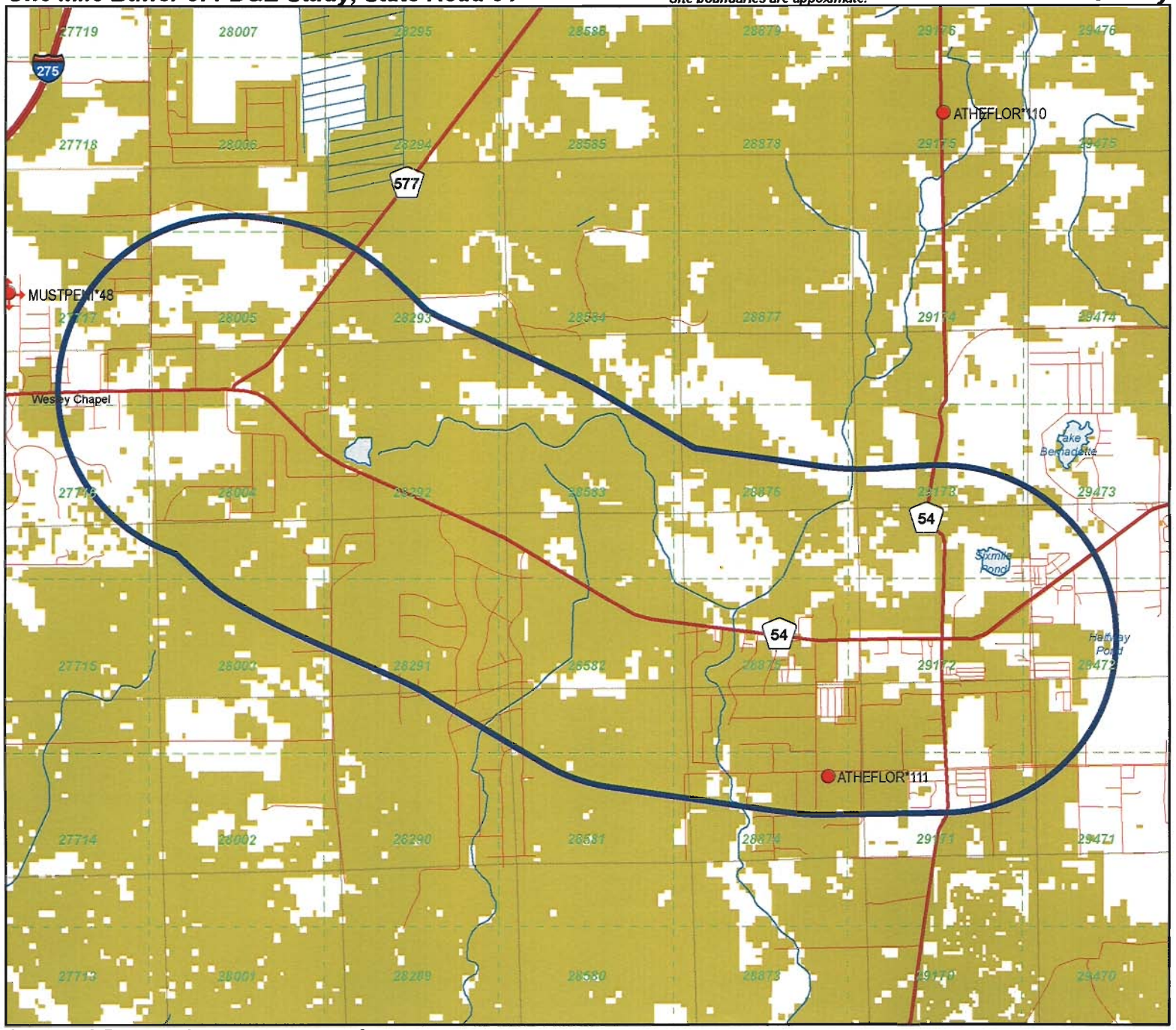
One Mile Buffer of PD&E Study, State Road 54

Site boundaries are appoximate.

Pasco County

1018 Thomasville Road
Suite 200-C
Tallahassee, FL 32303
(850) 224-8207
(850) 681-9364 Fax
www.fnai.org

FLORIDA Natural Areas INVENTORY



0 0.5 1 2 Miles

Element Occurrences

- Animals
- Plants
- Communities
- Other
- Data Sensitive
- Point Indicates General Vicinity of Element
- U.S. Fish & Wildlife Service Scrub Jay Survey 1992-96

Conservation Lands

- Federal
- State
- Local
- Private
- State Aquatic Preserves

Land Acquisition Projects

- Florida Forever Board of Trustees Projects

- FNAI Rare Species Habitat
- FNAI Biodiversity Matrix Square Mile Units

- County Boundary
- Interstate
- Turnpike
- Major Highway
- Local Road
- Water

N W E S

NOTE
Map should not be interpreted without accompanying documents.

Map produced by JAG
Map Date: 30 OCT 2006

1018 Thomasville Road
Suite 200-C
Tallahassee, FL 32303
(850) 224-8207
(850) 681-9364 Fax
www.fnai.org

Florida Natural Areas Inventory

ELEMENT OCCURRENCES DOCUMENTED ON OR NEAR *PROJECT SITE*

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
MUSTPENI*48	Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N	1969-01-20	Open fields and pine.	1969-01-20: L. N. Brown, ISU, observation. Animals found run over together at edge of southbound lane. Specimens in private collection of L.N. Brown (numbers unknown).
ATHEFLOR*110	Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS	999-Sprg, Sumi	1999: Pasture (U99BOW01FLUS).	1999: 3 adults and no young observed (U99BOW01FLUS).
ATHEFLOR*111	Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS	999-Sprg, Sumi	1999: Pasture in more urban than rural residential setting (U99BOW01FLUS, PNDNES03FLUS).	1999: Three burrows observed with 2 adults each and no young (U99BOW01FLUS).

1018 Thomasville Road
Suite 200-C
Tallahassee, FL 32303
(850) 224-8207
(850) 681-9364 Fax
www.fnai.org

Florida Natural Areas Inventory

Biodiversity Matrix Report

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Matrix Unit ID: 27716					
Likely					
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Matrix Unit ID: 27717					
Likely					
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Mycteria americana	Wood Stork	G4	S2	LE	LE
Matrix Unit ID: 28003					
Likely					
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Matrix Unit ID: 28004					
Likely					
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Matrix Unit ID: 28005					
Likely					
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Matrix Unit ID: 28006					
Likely					
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Matrix Unit ID: 28291					
Likely					
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Matrix Unit ID: 28292					
Likely					
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Matrix Unit ID: 28293					

Definitions: *Documented - Rare species and natural communities documented on or near this site.*
Documented-Historic - Rare species and natural communities documented, but not observed/reported within the last twenty years.
Likely - Rare species and natural communities likely to occur on this site based on suitable habitat and/or known occurrences in the vicinity.
Potential - This site lies within the known or predicted range of the species listed.

1018 Thomasville Road
Suite 200-C
Tallahassee, FL 32303
(850) 224-8207
(850) 681-9364 Fax
www.fnai.org

Florida Natural Areas Inventory

Biodiversity Matrix Report

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Likely					
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Matrix Unit ID: 28581					
Likely					
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Matrix Unit ID: 28582					
Likely					
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Matrix Unit ID: 28583					
Likely					
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Matrix Unit ID: 28584					
Likely					
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Matrix Unit ID: 28874					
Documented					
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Likely					
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Matrix Unit ID: 28875					
Likely					
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Matrix Unit ID: 28876					
Likely					
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE

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Potential - This site lies within the known or predicted range of the species listed.

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Florida Natural Areas Inventory

Biodiversity Matrix Report

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Matrix Unit ID: 29171					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Matrix Unit ID: 29172					
Likely					
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Matrix Unit ID: 29173					
Likely					
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Matrix Unit ID: 29471					
Likely					
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Matrix Unit ID: 29472					
Likely					
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Matrix Unit ID: 29473					
Likely					
Grus canadensis pratensis	Florida Sandhill Crane	G5T2T3	S2S3	N	LT
Mycteria americana	Wood Stork	G4	S2	LE	LE
Potential from any/all selected units					
Aimophila aestivalis	Bachman's Sparrow	G3	S3	N	N
Andropogon arctatus	Pine-woods Bluestem	G3	S3	N	LT
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	LS
Bonamia grandiflora	Florida Bonamia	G3	S3	LT	LE
Calamintha ashei	Ashe's Savory	G3	S3	N	LT
Calopogon multiflorus	Many-flowered Grass-pink	G2G3	S2S3	N	LE
Carex chapmanii	Chapman's Sedge	G3	S3	N	LE
Centrosema arenicola	Sand Butterfly Pea	G2Q	S2	N	LE
Chionanthus pygmaeus	Pygmy Fringe Tree	G3	S3	LE	LE
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	LT
Eriogonum longifolium var. gnaphalifo	Scrub Buckwheat	G4T3	S3	LT	LE

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Florida Natural Areas Inventory

Biodiversity Matrix Report

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Eumeces egregius lividus	Blue-tailed Mole Skink	G4T2	S2	LT	LT
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	LS
Gymnopogon chapmanianus	Chapman's Skeletongrass	G3	S3	N	N
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Lechea cernua	Nodding Pinweed	G3	S3	N	LT
Liatris ohlingerae	Florida Blazing Star	G3	S3	LE	LE
Litsea aestivalis	Pondspice	G3	S2	N	LE
Lupinus aridorum	Scrub Lupine	G3T1	S1	LE	LE
Matelea floridana	Florida Spiny-pod	G2	S2	N	LE
Mesic flatwoods		G4	S4	N	N
Monotropsis reynoldsiae	Pigmy Pipes	G1Q	S1	N	LE
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3	S3	N	N
Nemastylis floridana	Celestial Lily	G2	S2	N	LE
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Nolina atopocarpa	Florida Beargrass	G3	S3	N	LT
Nolina brittoniana	Britton's Beargrass	G3	S3	LE	LE
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Panicum abscissum	Cutthroat Grass	G3	S3	N	LE
Paronychia chartacea ssp. chartacea	Paper-like Nailwort	G3T3	S3	LT	LE
Picoides borealis	Red-cockaded Woodpecker	G3	S2	LE	LS
Podomys floridanus	Florida Mouse	G3	S3	N	LS
Polygala lewtonii	Lewton's Polygala	G3	S3	LE	LE
Pteroglossaspis ecristata	Giant Orchid	G2G3	S2	N	LT
Rana capito	Gopher Frog	G3	S3	N	LS
Rostrhamus sociabilis plumbeus	Snail Kite	G4G5T2	S2	LE	LE
Salix floridana	Florida Willow	G2	S2	N	LE
Sandhill		G3	S2	N	N
Sciurus niger shermani	Sherman's Fox Squirrel	G5T3	S3	N	LS
Triphora craigheadii	Craighead's Nodding-caps	G1	S1	N	LE
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	LT*
Warea carteri	Carter's Warea	G3	S3	LE	LE

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Potential - This site lies within the known or predicted range of the species listed.

GLOBAL AND STATE RANKS

Florida Natural Areas Inventory (FNAI) defines an **element** as any rare or exemplary component of the natural environment, such as a species, natural community, bird rookery, spring, sinkhole, cave, or other ecological feature. FNAI assigns two ranks to each element found in Florida: the **global rank**, which is based on an element's worldwide status, and the **state rank**, which is based on the status of the element within Florida. Element ranks are based on many factors, including estimated number of occurrences, estimated abundance (for species and populations) or area (for natural communities), estimated number of adequately protected occurrences, range, threats, and ecological fragility.

GLOBAL RANK DEFINITIONS

G1	Critically imperiled globally because of extreme rarity (5 or fewer occurrences or less than 1000 individuals) or because of extreme vulnerability to extinction due to some natural or man-made factor.
G2	Imperiled globally because of rarity (6 to 20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor.
G3	Either very rare and local throughout its range (21-100 occurrences or less than 10,0000 individuals) or found locally in a restricted range or vulnerable to extinction from other factors.
G4	Apparently secure globally (may be rare in parts of range).
G5	Demonstrably secure globally.
G#?	Tentative rank (e.g., G2?)
G#G#	Range of rank; insufficient data to assign specific global rank (e.g., G2G3)
G#T#	Rank of a taxonomic subgroup such as a subspecies or variety; the G portion of the rank refers to the entire species and the T portion refers to the specific subgroup; numbers have same definition as above (e.g., G3T1)
G#Q	Rank of questionable species - ranked as species but questionable whether it is species or subspecies; numbers have same definition as above (e.g., G2Q)
G#T#Q	Same as above, but validity as subspecies or variety is questioned.
GH	Of historical occurrence throughout its range, may be rediscovered (e.g., ivory-billed woodpecker)
GNA	Ranking is not applicable because element is not a suitable target for conservation (e.g. as for hybrid species)
GNR	Not yet ranked (temporary)
GNRTNR	Neither the full species nor the taxonomic subgroup has yet been ranked (temporary)
GX	Believed to be extinct throughout range
GXC	Extirpated from the wild but still known from captivity/cultivation
GU	Unrankable. Due to lack of information, no rank or range can be assigned (e.g., GUT2).

STATE RANK DEFINITIONS

Definition parallels global element rank: substitute "S" for "G" in above global ranks, and "in Florida" for "globally" in above global rank definitions.

FEDERAL AND STATE LEGAL STATUSES PROVIDED BY FNAI FOR INFORMATION ONLY.

For official definitions and lists of protected species, consult the relevant state or federal agency.

FEDERAL LEGAL STATUS

Definitions derived from U.S. Endangered Species Act of 1973, Sec. 3. Note that the federal status given by FNAI refers only to Florida populations and that federal status may differ elsewhere.

LE Listed as Endangered Species in the List of Endangered and Threatened Wildlife and Plants under the provisions of the Endangered Species Act. Defined as any species which is in danger of extinction throughout all or a significant portion of its range.

LE,XN An experimental population of a species otherwise Listed as an Endangered Species in the List of Endangered and Threatened Wildlife and Plants.

PE Proposed for addition to the List of Endangered and Threatened Wildlife and Plants as Endangered Species.

LT Listed as Threatened Species. Defined as any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

LT,PDL Species currently listed threatened but has been proposed for delisting.

PT Proposed for listing as Threatened Species.

C Candidate Species for addition to the list of Endangered and Threatened Wildlife and Plants, Category 1. Taxa for which the USFWS currently has substantial information on hand or in possession to support the biological appropriateness of proposing to list the species as endangered or threatened.

PS Partial listing status (species is listed for only a portion of its geographic range).

SAT Threatened due to similarity of appearance to a threatened species.

SC Species of concern. Species is not currently listed but is of management concern to USFWS.

N Not currently listed, nor currently being considered for addition to the List of endangered and Threatened Wildlife and Plants.

FLORIDA LEGAL STATUSES

Animals: Definitions derived from "Florida's Endangered Species and Species of Special Concern, Official Lists" published by Florida Fish and Wildlife Conservation Commission, 1 August 1997, and subsequent updates.

Animals (Florida Fish and Wildlife Conservation Commission- FFWCC)

LE Listed as Endangered Species by the FGFWFC. Defined as a species, subspecies, or isolated population which is so rare or depleted in number or so restricted in range of habitat due to any man-made or natural factors that it is in immediate danger of extinction or extirpation from the state, or which may attain such a status within the immediate future.

LT Listed as Threatened Species by the FGFWFC. Defined as a species, subspecies, or isolated population which is acutely vulnerable to environmental alteration, declining in number at a rapid rate, or whose range or habitat is decreasing in area at a rapid rate and as a consequence is destined or very likely to become an endangered species within the foreseeable future. LT* (for Florida black bear) indicates that LT status does not apply in Baker and Columbia counties and in the Apalachicola National Forest.

LS Listed as Species of Special Concern by the FGFWFC. Defined as a population which warrants special protection, recognition, or consideration because it has an inherent significant vulnerability to habitat modification, environmental alteration, human disturbance, or substantial human exploitation which, in the foreseeable future, may result in its becoming a threatened species. LS* indicates that a species has LS status only in selected portions of its range in Florida.

N Not currently listed, nor currently being considered for listing.

Plants: Definitions derived from Sections 581.011 and 581.185(2), Florida Statutes, and the Preservation of Native Flora of Florida Act, 5B-40.001. FNAI does not track all state-regulated plant species; for a complete list of state-regulated plant species, call Florida Division of Plant Industry, 352-372-3505.

LE Listed as Endangered Plants in the Preservation of Native Flora of Florida Act. Defined as species of plants native to the state that are in imminent danger of extinction within the state, the survival of which is unlikely if the causes of a decline in the number of plants continue, and includes all species determined to be endangered or threatened pursuant to the Federal Endangered Species Act of 1973, as amended.

PE Proposed by the FDACS for listing as Endangered Plants.

LT Listed as Threatened Plants in the Preservation of Native Flora of Florida Act. Defined as species native to the state that are in rapid decline in the number of plants within the state, but which have not so decreased in such number as to cause them to be endangered. LT* indicates that a species has LT status only in selected portions of its range in Florida.

PT Proposed by the FDACS for listing as Threatened Plants.

CE Listed as a Commercially Exploited Plant in the Preservation of Native Flora of Florida Act. Defined as species native to state which are subject to being removed in significant numbers from native habitats in the state and sold or transported for sale.

PC Proposed by the FDACS for listing as Commercially Exploited Plants.

(LT) Listed threatened as a member of a larger group but not specifically listed by species name.

N Not currently listed, nor currently being considered for listing.

FLORIDA
Natural Areas
INVENTORY

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Agency Comments - Project Effects

#6651 SR 54 From Curley Road to Morris Bridge Road			
District:	District 7	**Phase:**	Programming Screen
County:	Pasco County	**From:**	Curley Road
Planning Organization:	FDOT District 7	**To:**	Morris Bridge Road

Alternative #1

Natural

Air Quality

US Environmental Protection Agency

Issue	Air Quality
Effect	Minimal to None
Review Date	11/16/2005
Identified Resources and Level of Importance:	Resources: Air quality Level of Importance: Low, due to minimal degree of effect
Comments on Effects to Resources:	Since the north Tampa area and Pasco County do not have any national ambient air quality standards non-attainment areas or maintenance areas at this time, EPA has no comment on air quality issues at this time. Would like to continue agency involvement in the future, if necessary.
Additional Comments:	As populations growth and vehicle volumes increase, there is the potential to have air quality non-attainment issues in the future. FDOT, MPOs, municipalities, and regional planning agencies should conduct air quality modeling as traffic forecasts increase. If the proposed project is located directly adjacent to residential homes, there may be a potential for short-term health exposure from construction vehicles and particulates. To eliminate this potential for exposure, construction vehicles could be retrofit with diesel oxidation catalysts or particulate filters.

Coastal and Marine

Southwest Florida Water Management District

Issue	Coastal and Marine
Effect	Minimal to None
Review Date	11/17/2005
Comments on Effects to Resources:	No adverse impacts to coastal and marine resources are anticipated.

Comments on Effects to Resources:	This segment of roadway crosses two surface water bodies, Basset Branch and New River. A review of GIS analysis data in the EST indicates that the project is located in the following drainage basins: TROUT CREEK BASSET BRANCH NEW RIVER INDIAN CREEK Trout Creek and New River are listed on the Clean Water Act 303(d) list of impaired waters. The 303(d) list includes surface waters which exceed surface water quality standards for certain pollutants, based upon the designated use of the water body. Trout Creek is listed on the 303(d) list of impaired waters for exceedances of water quality standards for nutrients, coliforms and dissolved oxygen. Trout Creek is currently scheduled for total maximum daily loads (TMDL) development by 12/31/08. New River is listed on the 303(d) list of impaired waters for exceedances of water quality standards for nutrients, turbidity, coliforms, dissolved oxygen, and total suspended solids. TMDLs were developed and approved for fecal and total coliforms on March 28, 2005. Information onthe TMDLs can be obtained from EPA Region 4 and Florida Department of Environmental Protection (FDEP) and their regulatory agency websites. This project is located within the Hillsborough River watershed. Hillsborough River is designated as a Florida Outstanding Water (OFW) and is provided additional protection under the Florida Administrative Code due to the OFW designation. Further impairment to Trout Creek, New River, and Hillsborough River is a concern from both point and nonpoint sources. Potential impacts due to nonpoint source runoff (stormwater) into these waters include sedimentation runoff during construction and increased stormwater runoff containing sediments, petroleum products, and other pollutants. Additional widening of roadways and further development in an area increases impervious surface area and the potential for increased stormwater runoff into nearby surface waters such as creeks and rivers. All stormwater regulations and guidelines must be met during design and construction with regard to stormwater ponds, erosion and sedimentation control and best management practices.
Additional Comments:	Review of the terms and conditions outlined in the TMDLs is recommended.

Wetlands	
US Environmental Protection Agency	
Issue	Wetlands
Effect	Minimal to None
Review Date	11/17/2005
Identified Resources and Level of Importance:	Resources: Wetlands Level of Importance: Moderate

Comments on Effects to Resources:	A review of GIS analysis data in the EST indicates that the following number of acres of primarily palustrine wetlands are located within proximity of the proposed project. The wetlands information is according to National Wetlands Inventory data. 100-foot buffer distance: 1.2 acres - 1.1% of total acres 200-foot buffer distance: 8.1 acres - 3.7% of total acres 500-foot buffer distance: 55.2 acres - 9.9% of total acres The wetlands are comprised of freshwater marsh and wet prairies, along with some cypress wetlands. EPA recommends that a wetland assessment acceptable to EPA and USACOE be conducted on wetland areas expected to be impacted by the proposed project. Roadway widening alternatives which avoid or minimize impact to wetlands should be evaluated and considered. Direct impacts to wetlands will require mitigation and/or compensation according to all applicable regulations and/or permitting requirements.
National Marine Fisheries Service	
Issue	Wetlands
Effect	Minimal to None
Review Date	11/2/2005
Identified Resources and Level of Importance:	None.
FL Department of Environmental Protection	
Issue	Wetlands
Effect	Moderate
Review Date	12/1/2005
Identified Resources and Level of Importance:	A review of the GIS database associated with the Environmental Screening Tool shows isolated palustrine wetlands within the 100 foot buffer zone covering 1.2 acres, within the 200 foot buffer covering 8.1 acres and within the 500 foot buffer covering 55.2 acres.
Comments on Effects to Resources:	Development of these wetlands may hydrologically affect and likely reduce natural watershed functions such as the collection, storage, filtering and discharge of runoff. During the environmental resource permit process, the applicant will be required to eliminate or reduce the proposed wetland resource impacts of the road 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. -The cumulative impacts of concurrent and future road improvement projects in the vicinity of the subject project should also be addressed.
Southwest Florida Water Management District	
Issue	Wetlands

Effect	Substantial
Review Date	11/17/2005
Identified Resources and Level of Importance:	While wetlands are common, there is no large expanse of wetland in the project corridor. Wetlands typically are disturbed palustrine systems associated with the waterways in the corridor, particularly New River. There are a small number of small, isolated systems in the area not associated directly with waterways except at extreme high water. Considerable alteration of the wetlands has occurred in the area due to agriculture (cattle, pine plantations, and citrus) and residential development. The FFWCC 2003 Habitat & Landcover data shows that wetlands are comprised of: hardwood swamp (610), cypress swamp (621), and mixed wetland forest (630), shrub swamps composed chiefly of willow and elderberry (618), freshwater marshes (641), and wet prairies (643). Permanent open water occurs in Sixmile Pond (523) east of Morris Bridge Road, the stormwater pond in the former depressional site at SR 54/Curley Road (534), and numerous small ponds <10 acres throughout the project area. Stormwater swales paralleling SR 54, in some cases, support herbaceous wetland plants and serve as foraging areas for wading birds, including wood storks. There are 14.25 acres of wetlands within 200 feet of project corridor (FFWCC, 2003) and there are 72.3 acres within 500 feet. The NWI tally of wetlands reports less acreage and only palustrine systems within 1.0 mile of the project, while FFWCC data are more recent and detailed. The acreage of Priority Wetlands supporting one to three Focal Species within 200 feet of the project corridor (FFWCC) is 2.5 acres and within 500 feet of the project corridor, there are 12.3 acres of Priority Wetlands. Wetlands immediately adjacent to the project are disturbed for the most part, but there are significant wetlands within the regional environmental setting.
Comments on Effects to Resources:	The project will result in further physical alterations of the crossing of SR 54 and New River, Basset Branch, and, possibly, Trout Creek. The project may result in alterations to the SR 54 crossing of Indian Creek east of the SR 54/Morris Bridge Road intersection. Some modifications may require work outside of the existing right-of way
US Army Corps of Engineers	
Issue	Wetlands
Effect	Moderate
Review Date	11/14/2005
Identified Resources and Level of Importance:	Based on the NWI and Wetlands 2000 GIS information and a site visit of the existing alignment, approximately 50-60 acres of freshwater wetlands fall within a 500' buffer. These wetlands are predominantly herbaceous, with some cypress wetlands also present. Both wetland types are common in the area.
Comments on Effects to Resources:	The acreage of direct impacts needs to be determined. However, based on the site visit, the project may require an Individual Permit from the Corps. FDOT should include avoidance and minimization measures in their project design.
Wildlife and Habitat	
FL Fish and Wildlife Conservation Commission	
Issue	Wildlife and Habitat
Effect	Substantial

Review Date	11/2/2005
Comments on Effects to Resources:	Impacts from the project could be substantial due to habitat loss from construction, and from secondary and cumulative impacts from residential and commercial development facilitated by the planned road capacity improvements. A moderate number of listed species could be adversely affected due to habitat loss and degradation. The expanded roadway could also result in increased roadkills for many species, including several listed species, and create a formidable barrier to normal and necessary wildlife movement patterns to fully access available habitat north and south of the road for food, cover, dispersal, and breeding opportunities.
Additional Comments:	We recommend plant community mapping and surveys for the occurrence of listed wildlife species, both along the right-of-way, and within sites proposed for Drainage Retention Areas (DRAs). DRAs should also be located in previously disturbed sites if possible, to protect and conserve habitat resources. A plan should also be formulated for avoidance, minimization, and mitigation of project impacts. A compensatory mitigation plan should be designed to replace wetland and upland habitat lost as a result of the project; and land acquisition adjacent to core habitat areas on existing public land is very worthy of consideration. Location of potential habitat mitigation areas adjacent to the Trout River floodplain by the use of a perpetual conservation easement would compliment ongoing conservation efforts along this regional habitat system, and would also be supported by our agency. Coordination with FWC biologists in planning this effort is requested. Replacement habitat for mitigation should be type for type, functionally equivalent, and equal to or of higher functional value. We strongly recommend that a study and analysis of habitat connectivity needs in this area be accomplished as part of the Project Development and Environment Study (PD&E), and expanded bridges which span the stream, floodplain, and a portion of the upland floodplain transitional area along with exclusionary fencing should be evaluated, especially within the Trout River system. We believe that protection of the functionality of the Trout River system is an important consideration in this developing region. In addition, bridging other selected high quality wetland areas is also an option which should be addressed for avoidance and minimization measures required by the Environmental Resource Permit to protect and conserve isolated wetland systems. FWC biologists are available to provide technical assistance in the design of these roadway structures to benefit a broad array of species. We appreciate the opportunity to provide input on highway design and the conservation of fish and wildlife resources. Please contact Mr. Lee Taylor at (863) 701-1439 for further coordination on this project.
US Fish and Wildlife Service	
Issue	Wildlife and Habitat
Effect	Moderate
Review Date	11/10/2005
Identified Resources and Level of Importance:	Federally listed plant and animal species, migratory birds, the habitats that support them and wetlands. High level of importance.
Southwest Florida Water Management District	
Issue	Wildlife and Habitat
Effect	Substantial
Review Date	11/17/2005

Comments on Effects to Resources:	The project will result in adverse impacts to wildlife and habitat. Wildlife impacts include disruption of breeding activity and the elimination or degradation of foraging and roosting habitat. Species affected are wetland-dependent and/or upland species, including Listed Species such as wood stork and sandhill crane. The project may cause additional isolation of floral and faunal species populations on either side of the roadway, particularly in the waterway corridors of New River and Basset Branch as a result of the expanded cross section of the facility to accommodate both new travel lanes and a median. The expanded cross section has the potential to result in additional wildlife fatalities, particularly turtles, other reptiles, and amphibians. Habitat impacts include loss of foraging, roosting, and breeding habitat through direct destruction and indirect encroachment. The functions and values of both upland and wetland habitat will be lost or degraded, with the result that sensitive species may abandon the area altogether
Cultural	
Historic and Archaeological Sites	
FL Department of State	
Issue	Historic and Archaeological Sites
Effect	Minimal to None
Review Date	11/14/2005

FDOT Contractor Requirements for Unexpected Interaction with Certain Protected Species During Work Activities

These Requirements are utilized for all FDOT projects and specifically apply when the project has no other identified mitigation measures or permit conditions related to the species encountered.

NOTE: These Requirements represent the species most likely to be unexpectedly encountered on FDOT projects. These Requirements *DO NOT* address all Protected Species that are found in Florida. In the event a species is encountered during project activities and that species' protection status is in question, immediately contact the Engineer.

Bald Eagle

Stop work if live Bald Eagles (*Haliaeetus leucocephalus*) are found in the work area. Work may resume after the bird or birds are allowed to leave the area of their own volition.

Report live sightings of Bald Eagles immediately to the District Environmental Administrator or Construction Environmental Coordinator and the Engineer.

If a Bald Eagle is found nesting within 660 feet of the project limits, cease all work in the area until FDOT (Florida Department of Transportation) has coordinated with USFWS (United States Fish and Wildlife Service).

Crested Caracara

Stop work if live Audubon's Crested Caracara (*Caracara cheriway audubonii*) are found in the work area. Work may resume after the bird or birds are allowed to leave the area of their own volition.

Report live sightings of Audubon's Crested Caracara immediately to the District Environmental Administrator or Construction Environmental Coordinator and the Engineer.

If an Audubon's Crested Caracara is found nesting within 1500 feet of the project limits, cease all work in the area until FDOT has coordinated with USFWS

.

Florida Burrowing Owl

Stop work if live Florida Burrowing Owls (*Athene cunicularia floridana*) are found in the work area. Work may resume after the bird or birds are allowed to leave the area of their own volition.

Report live sightings of Florida Burrowing Owls immediately to the District Environmental Administrator or Construction Environmental Coordinator and the Engineer.

If a Florida Burrowing Owl is found nesting within 1000 feet of the project limits, cease all work in the area until FDOT has coordinated with the Florida Fish and Wildlife Conservation Commission (FWC). Take cautionary measures to guard against accidental destruction of the nest. Do not plug the burrow entrance or cause the burrow to collapse, as this would effectively destroy the nest, and requires a permit.

Red-Cockaded Woodpecker

Stop work if live Red-Cockaded Woodpeckers (*Picoides borealis*) are found in the work area. Work may resume after the bird or birds are allowed to leave the area of their own volition.

Report live sightings of Red-Cockaded Woodpeckers immediately to the District Environmental Administrator or Construction Environmental Coordinator and the Engineer.

If a Red-Cockaded Woodpecker is found nesting within 1000 feet of the project limits, cease all work in the area until FDOT has coordinated with USFWS.

Florida Scrub Jay

Stop work if live Florida Scrub Jays (*Aphelocoma coerulescens*) are found in the work area. Work may resume after the bird or birds are allowed to leave the area of their own volition.

Report live sightings of Florida Scrub Jays immediately to the District Environmental Administrator or Construction Environmental Coordinator and the Engineer .

If a Florida Scrub Jay is found nesting within 1000 feet of the project limits, cease all work in the area until FDOT has coordinated with USFWS.

Everglade Snail Kite

Stop work if live Everglade Snail Kites (*Rostrhamus sociabilis plumbeus*) are found in the work area. Work may resume after the bird or birds are allowed to leave the area of their own volition.

Report live sightings of Everglade Snail Kite immediately to the District Environmental Administrator or Construction Environmental Coordinator and the Engineer.

If an Everglade Snail Kite is found nesting within 1000 feet of the project limits, cease all work in the area until FDOT has coordinated with USFWS.

Woodstork

Stop work if live Woodstorks (*Mycteria americana*) are found in the work area. Work may resume after the bird or birds are allowed to leave the area of their own volition.

Report live sightings of Woodstorks immediately to the District Environmental Administrator or Construction Environmental Coordinator and the Engineer.

If a Woodstork is found nesting within 1000 feet of the project limits, cease all work in the area until FDOT has coordinated with USFWS.

Gopher Tortoise

Stop work if live Gopher Tortoises (*Gopherus polyphemus*) are found in the work area. Work may resume after the Gopher Tortoises are allowed to leave the area of their own volition.

Report live sightings of Gopher Tortoises immediately to the District Environmental Administrator or Construction Environmental Coordinator and the Engineer.

If a Gopher Tortoise or burrow is found within an area of construction then the area must have staked silt fence partially encircling the burrow. The silt fence must be 25 feet from the apron of the burrow, and the half-radius configuration must prevent the occupant from entering the construction site, yet allow the tortoise to have access to the surrounding natural areas. Do not plug the burrow entrance or cause the burrow to collapse, as this would effectively destroy the burrow, and requires a permit.

Eastern Indigo Snake

If live Eastern Indigo Snakes (*Drymarchon corais couperi*) are found in the work area, stop all work. Work may resume after the snake or snakes are allowed to leave the area of their own volition.

Report live sightings of Eastern Indigo Snakes to the District Environmental Administrator or Construction Environmental Coordinator and the Engineer.

If a dead Eastern Indigo Snake is found on the project site, freeze the dead snake as soon as possible and immediately notify the District Environmental Administrator or Construction Environmental Coordinator and Construction Project Manager.

West Indian Manatee

If a manatee(s) (*Trichechus manatus*) is/are seen within 300 feet of the active daily construction/dredging operation or vessel movement, implement all appropriate precautions to ensure protection of the manatee. These precautions include:

(a) Do not operate moving equipment closer than 300 feet of a manatee.

(b) Shutdown the operation of any equipment closer than 300 feet to a manatee.

(c) Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, are properly secured, and are regularly monitored to avoid manatee entrapment. Barriers must not block manatee entry to or exit from essential habitat.

(d) All vehicles associated with the construction project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water where the draft of the vessel provides less than a four foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.

(e) Do not resume activities until the manatee(s) have departed the project area of its own volition.

Reporting of Manatee activity, and injury to listed species is required:

(a) Post Manatee Hotline number at on-site telephones to be used for information or help in dealing with manatee problems.

(b) Keep a log detailing sightings, collisions or other contact with Manatees as events occur during construction. When work is completed, forward this data to Florida Department of Environmental Protection, Marine Research Institute, Office of Protected Species Research, 100 Eighth Ave., S.E., St. Petersburg, FL 33701-5095.

(c) Immediately report any collision with and/or injury to a manatee to the "Manatee Hotline" at 1-888-404-FWCC (1-888-404-3922) and to the U.S. Fish and Wildlife Service Vero Beach office.

Post identification posters for easy recognition of listed species.

(a) Post, temporary signs concerning manatees prior to and during all construction/dredging activities. Remove the signs upon completion of the project. Post a sign measuring at least 3 feet by 4 feet which reads Caution: Manatee Area in a location prominently visible to water-related construction crews.

(b) If vessels are associated with the construction, Post a second sign so that it is visible to the vessel operator. The second sign should be at least 8 ½ inches by 11 inches and read: Caution: Manatee Habitat. Idle speed is required if operating a vessel in the construction area. Specific warning sign and design placement is a condition of the Water Management District.

Small Toothed Sawfish

If a small toothed sawfish (*Pristis pectinata*) is seen within 300 feet of the active daily construction/dredging operation or vessel movement, implement all appropriate precautions to ensure protection of the small toothed sawfish.

These precautions include:

(a) do not operate moving equipment closer than 50 feet of a small toothed sawfish.

(b) Shutdown the operation of any equipment closer than 50 feet to a small toothed sawfish.

(c) Siltation or turbidity barriers shall be made of material in which small toothed sawfish cannot become entangled, are properly secured, and are regularly monitored to avoid small toothed sawfish entrapment. Barriers must not block small toothed sawfish entry to or exit from essential habitat.

(d) All vehicles associated with the construction project shall operate at “no wake/idle” speeds at all times while in the construction area and while in water where the draft of the vessel provides less than a four foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.

(e) Do not resume activities until the small toothed sawfish have departed the project area of its own volition.

Reporting of small tooth sawfish activity, or injury to listed species is required:

(a) USFWS (1-561-562-3909), National Marine Fisheries Service at (727) 570-5344 numbers will be available at on-site telephones to be used for information or help in dealing with small tooth sawfish problems.

(b) Keep a log detailing sightings, collisions or other contact with small tooth sawfish as events occur during construction. Forward this information to the nearest regional U.S. Fish and Wildlife Service.

(c) Report any collision and/or injury to a small toothed sawfish to the U.S. Fish and Wildlife Service in Vero Beach (1-561-562-3909) in southern Florida, and National Marine Fisheries Service at (727) 570-5344

Post identification posters for easy recognition of listed species.

(a) Post, temporary signs concerning small tooth sawfish prior to, and during all construction/dredging activities. Remove the signs upon completion of the project.

(b) If vessels are associated with the construction, post a second sign so that it is visible to the vessel operator. The second sign should be at least 8 ½ inches by 11 inches and read: Caution: small tooth sawfish. Idle speed is required if operating a vessel in the construction area. Specific warning sign and design placement is a condition of the Water Management District.

Sea Turtle Species

If marine turtles {including Green Sea Turtles (*Chelonia mydas*), Hawksbill Sea Turtles (*Eretmochelys imbricata*), Kemp’s Ridley Sea Turtles (*Lepidochelys kempii*), Leatherback Sea Turtles (*Demochelys coriacea*), and Loggerhead Sea Turtles (*Caretta caretta*)} are seen within 300 feet of the active daily construction/dredging operation or vessel movement, implement all appropriate precautions to ensure protection of the marine turtles.


Green Sea Turtle

These precautions include:

(a) do not operate moving equipment closer than 50 feet of a marine turtle.

(b) Shutdown the operation of any equipment closer than 50 feet to a marine turtle.

(c) Siltation or turbidity barriers shall be made of material in which seaturtles cannot become entangled, are properly secured, and are regularly monitored to avoid small toothed sawfish entrapment. Barriers must not block seaturtle entry to or exit from essential habitat.


Hawksbill Sea Turtle

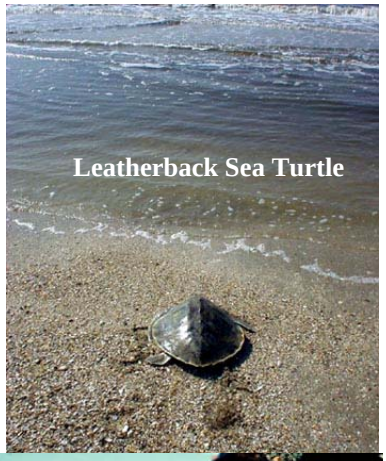
(d) All vehicles associated with the construction project shall operate at “no wake/idle” speeds at all times while in the construction area and while in water where the draft of the vessel provides less than a four foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.

(e) Do not resume activities until the marine turtles have departed the project area of its own volition.


Kemp’s Ridley Sea Turtle

Reporting of marine turtles, and injury to listed species is required:

(a) Post Hotline number at on-site telephones to be used for information or help in dealing with marine turtle problems.
(b) Keep a log detailing sightings, collisions or other contact with marine turtles as events occur during construction. When work is completed, forward this data to the nearest U.S. Fish and Wildlife Service regional office.
(c) Report any collision and/or injury to marine turtles to the U.S. Fish and Wildlife Service in Vero Beach (1-561-562-3909) in southern Florida, and National Marine Fisheries Service at (727) 570-5344


Leatherback Sea Turtle

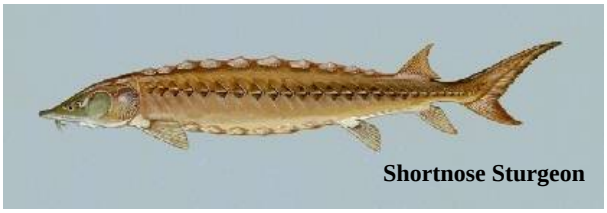
Post identification posters for easy recognition of listed species.

(a) Post, temporary signs concerning marine turtles prior to and during all construction/dredging activities. Remove the signs upon completion of the project. Post a sign measuring at least 3 feet by 4 feet which reads "Caution: Marine Turtles" in a location prominently visible to water-related construction crews.
(b) If vessels are associated with the construction, post a second sign so that it is visible to the vessel operator. The second sign should be at least 8 ½ inches by 11 inches and read: "Caution: Marine Turtle Habitat". Idle speed is required if operating a vessel in the construction area. Specific warning sign and design placement is a condition of the Water Management District.


Loggerhead Sea Turtle

Shortnose and Gulf Sturgeon

If a Shortnose sturgeon (*Acipenser brevirostrum*) or a Gulf sturgeon (*A. oxyrinchus desotoi*) is seen within 300 feet of active construction/dredging operation or vessel movement, implement all appropriate precautions to ensure protection of the sturgeon.


Shortnose Sturgeon

These precautions include:

(a) Use curtains of appropriate dimension to restrict the animal's access to the work area. Pollution booms or turbidity curtains should use tangle resistant or hemp rope when anchoring, or employ surface anchors to prevent entangling sturgeon.


Gulf Sturgeon

(b) Maintain continuous surveillance in order to free animals which may become trapped in silt or turbidity barrier.

(c) Post signs on site warning of the presence of sturgeon, of their endangered status, and precautions needed.

(d) Take care in lowering equipment or material below the water surface and into the stream bed to ensure no harm occurs to any sturgeon which may have entered the construction area undetected.

(e) Following completion of the project, prepare a report summarizing any involvement with sturgeon for NMFS and/or USFWS.

Florida Panther

Stop work if a live Florida panther (*Puma concolor coryi*) is found in the work area. Work may resume after the panther is allowed to leave the area of their own volition.

Report live sightings of the Florida panther immediately to the District Environmental Administrator or Construction Environmental Coordinator and the Engineer.

If a dead panther is observed within the project site or if any collision with and/or injury to a panther occurs they shall be reported within two hours to the FWC through their wildlife alert line (888-404-3922). Immediately notify the District Environmental Administrator or Construction Environmental Coordinator and the Engineer.

Florida Black Bear

Stop work if a live Florida black bear (*Ursus americanus floridanus*) is found in the work area. Work may resume after the bear (s) are allowed to leave the area of their own volition.

Report live sightings of the Florida black bear to the District Environmental Administrator or Construction Environmental Coordinator and the Engineer.

If a dead black bear is observed within the project site or if any collision with and/or injury to a black bear occurs they shall be reported within two hours to the FWC through their wildlife alert line (888-404-3922). Immediately notify the District Environmental Administrator or Construction Environmental Coordinator and the Engineer.

Florida Sandhill Crane

Stop work if a live Florida sandhill crane (*Grus canadensis pratenis*) is found in the work area. Work may resume after the sandhill crane(s) are allowed to leave the area of their own volition.

Report live sightings of Florida Sandhill Cranes immediately to the District Environmental Administrator or Construction Environmental Coordinator and the Engineer.

If an active nest is found within 400 feet of the project limits, cease all work in the area until FDOT has coordinated with the FWC. Immediately notify the District Environmental Administrator or Construction Environmental Coordinator and the Engineer.

Sherman's Fox Squirrel and Big Cypress Fox Squirrel

Stop work if a live Sherman's Fox Squirrel (*Sciurus niger shermani)* or a Big Cypress Fox Squirrel (*Sciurus niger avicennia)* is found in the work area. Work may resume after the fox squirrel(s) are allowed to leave the area of their own volition.

No trees are to be removed that contain active nest(s) being utilized by fox squirrels. If any nests are found and deemed to be active, a buffer of 125 feet will be established around the nest tree(s) and no clearing shall occur within the buffer until the nest becomes inactive.

Sherman's Fox Squirrel

Big Cypress Fox Squirrel

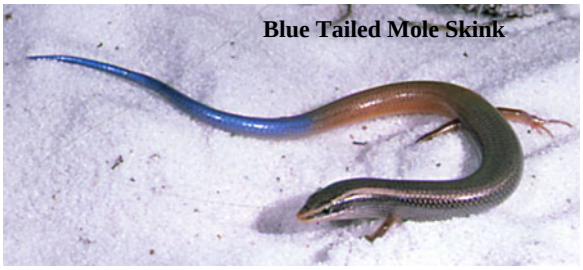
Sand Skink and Blue Tailed Mole Skink

Stop work if a live sand skink (*Neoseps reynoldsi)* or a live blue tailed mole skink (*Eumeces egregius lividus)* is found within the work area or adjacent to the work

Sand Skink

area. Work may resume after the skink(s) are allowed to leave the area of their own volition.

Report live sightings of skinks immediately to the District Environmental Administrator or Construction Environmental Coordinator and the Engineer.



Blue Tailed Mole Skink

American Crocodile

Stop work if a live American crocodile (*Crocodylus actus)* is found within the work area or adjacent to the work area. Work may resume after the crocodile(s) are allowed to leave the area of their own volition.

Report live sightings of crocodiles immediately to the District Environmental Administrator or Construction Environmental Coordinator and the Engineer.

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