Attachment F

Wetland Impacts

for:

Ridge Road Extension Alternatives Analysis

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1.0 Methodology

Wetland impacts were assessed in terms of acreage and quality of impacted wetlands. Direct impacts were considered to be areas where wetlands would be removed due to construction of the alternative. Indirect impacts were considered to be areas where wetlands would remain, but where construction of the alternative would result in secondary impacts either during or after construction.

Assessment Area

The Assessment Area consists of the area within 300 feet of each Ridge Road Alternative. Wetlands, including the wetlands along streams, were identified within the Assessment Area using the most recent FLUCFCS geographical information system (GIS) layer, as developed by the Southwest Florida Water Management District (SWFWMD) and included all 600 and all natural 500 series codes. Individual wetland polygons (wetland areas) were numbered and assigned the most detailed FLUCFCS code available in the SWFWMD layer. The SWFWMD 2011 FLUCFCS layer is the most current available. Note: individual mapped areas are referred to as "wetland areas" in this document, not "assessment areas."

The combination of site knowledge, and aerial photography was used to verify, and if necessary, correct the FLUCFCS. In general, there was high accuracy in areas where there has been little disturbance to wetlands. Areas of substantial disturbance had a higher level of errors. Errors were corrected when it appeared that they would have major impact on the subsequent analyses of wetland quality. Major changes included:

1. Correction of mapped polygons at Five-mile Creek (the creek in the vicinity of the Ridge Road alternative crossings had not been mapped as wetland).

2. Correction of ditches and roadside swales, mostly along SR 54, so that the ditches were mapped as surface waters, not wetlands.

3. Correction of wetland types so that riverine systems were mapped as riverine (FLUCFCS 615) and not as cypress swamp (FLUCFCS 621).

With the exception of Five-mile Creek, linework in the FLUCFCS layer was not changed.
No attempt was made to correct or refine any linework (wetland limits) for the mapped FLUCFCS areas in the Assessment Area unless noted on the Errata Map (Map F-1) and Errata Table (Table F-1).

Table F-1. Errata. The GIS ID in the table corresponds to the number of the polygon on Map F-1.

GIS ID	Updated FLUCFCS Code		Change	Area (acres)
3	530	RESERVOIRS	Changed from FLUCFCS 641	0.3
6	530	RESERVOIRS	Changed from FLUCFCS 653	0.9
27	530	RESERVOIRS	Changed from FLUCFCS 653	3.4
44	530	RESERVOIRS	Changed from FLUCFCS 641	2.6
45	530	RESERVOIRS	Changed from FLUCFCS 641	4.7
46	530	RESERVOIRS	Changed from FLUCFCS 644	1.2
47	530	RESERVOIRS	Changed from FLUCFCS 653	0.7
50	530	RESERVOIRS	Changed from FLUCFCS 643	0.5
58	530	RESERVOIRS	Changed from 643 (these are part of a ditch)	2.2
59	530	RESERVOIRS	Changed from 643 (these are part of a ditch)	0.9
61	530	RESERVOIRS	Changed from FLUCFCS 653	2.4
62	530	RESERVOIRS	Changed from FLUCFCS 641	1.0
71	530	RESERVOIRS	Changed from FLUCFCS 641	0.8
83	530	RESERVOIRS	Changed from FLUCFCS 644	1.7
96	530	RESERVOIRS	Changed from FLUCFCS 641	0.2
97	530	RESERVOIRS	Changed from FLUCFCS 641	0.8
98	530	RESERVOIRS	Changed from FLUCFCS 641	2.1
106	530	RESERVOIRS	Changed from FLUCFCS 641	0.7
107	530	RESERVOIRS	Changed from FLUCFCS 641	0.5
122	530	RESERVOIRS	Changed from FLUCFCS 641	1.6
137	530	RESERVOIRS	Changed from FLUCFCS 641	1.0
154	530	RESERVOIRS	Changed from FLUCFCS 641	0.2
157	530	RESERVOIRS	Changed from FLUCFCS 641	5.8
168	530	RESERVOIRS	Changed from 644 (floating vegetation in reservoir)	0.6
176	530	RESERVOIRS	Changed from FLUCFCS 643 -- it is a ditch	3.2
183	530	RESERVOIRS	Changed from FLUCFCS 653	1.7
206	530	RESERVOIRS	Changed from FLUCFCS 653	0.9
228	530	RESERVOIRS	Changed from FLUCFCS 644	2.2
233	530	RESERVOIRS	Changed from FLUCFCS 653	0.9
234	800	TRANSPORTATION & UTILITY	Changed from 641 (is roadside berm and road)	0.5
241	530	RESERVOIRS	Changed from 641	0.4
278	530	RESERVOIRS	Changed from FLUCFCS 641	2.4
279	530	RESERVOIRS	Changed from FLUCFCS 641	4.4
295	530	RESERVOIRS	Changed from FLUCFCS 641	0.8
322	530	RESERVOIRS	Changed from FLUCFCS 643, Suncoast Pkwy Borrow Pit	3.1
326	200	AGRICULTURE	Changed from 641	1.1
337	530	RESERVOIRS	Changed from FLUCFCS 653	1.9
356	530	RESERVOIRS	Changed from FLUCFCS 641	1.0

GIS ID	Updated FLUCFCS Code		Change	Area (acres)
390	530	RESERVOIRS	Changed from FLUCFCS 641	0.7
397	530	RESERVOIRS	Changed from FLUCFCS 520, Suncoast Pkwy Borrow Pit	2.7
445	530	RESERVOIRS	Changed from FLUCFCS 653	0.5
462	200	AGRICULTURAL	Changed from FLUCFCS 621	0.9
466	800	TRANSPORTATION & UTILITY	Changed from FLUCFCS 630	0.5
467	800	TRANSPORTATION & UTILITY	Changed from FLUCFCS 621	0.5
468	800	TRANSPORTATION & UTILITY	Changed from FLUCFCS 630	0.4
469	800	TRANSPORTATION & UTILITY	Changed from FLUCFCS 641	0.1
473	800	TRANSPORTATION & UTILITY	Changed from FLUCFCS 615	1.3
474	800	TRANSPORTATION & UTILITY	Changed from FLUCFCS 615	1.7
534	530	RESERVOIRS	Changed from FLUCFCS 641, Suncoast Pkwy Borrow Pit	5.1

Acreage of Impacted Areas

Acreage of direct impacts was computed by summing the acreage of each wetland or water polygon within the footprint of the roadway fill of the alternative. Acreage of indirect impacts was computed by summing the acreage of any wetland or water polygon under a bridge and/or within a 300 ft. area on each side of the roadway.

Quality of Impacted Areas

The qualitative scoring procedure described in the Florida Uniform Mitigation Assessment Method (UMAM) was used as a basis for determining the aquatic functions and a “quality score” was computed for each wetland area.

The full UMAM procedure is a multi-step procedure that begins with a standardized procedure for assessing the ecological functions provided by wetlands and other surface waters. Only the first steps, which evaluate wetland functions through consideration of an ecological community’s current condition, hydrologic connections, uniqueness, location, and fish and wildlife utilization were used for this purpose. This characterization provides a framework for comparison of each mapped wetland area relative to an “optimal” condition.

The assessment provided was intended for use at the scale and detail of an Alternative Analysis. The functional scores have been based on interpretation of aerial photography informed by Cardno-ENTRIX knowledge of the region in general. The end product of this functional assessment is a "quality score" of High, Medium or Low for each wetland along an alignment and a summary quality descriptor for the overall alignment. This assessment is not intended to be applied as a full UMAM for impact calculation or mitigation calculation purposes for any alignment.

Maps were prepared with the identified FLUCFCS polygons annotated with the identified "quality scores" (High, Medium or Low). The maps show the location of the particular alternative's alignment. The maps may cover larger areas where several alternatives are in close proximity to one another, such as Alternatives 2-7. In all cases mapping includes coverage of the direct impact area plus 300 feet on each side of the direct impact area. These prepared maps provide a visual presentation of the alignment and the aquatic FLUCFCS codes (with quality score) traversed.

For summary table presentation, the total acreage along each alignment of each FLUCFCS code (sorted by quality score) was reported. For example, if a particular FLUCFCS code with a High quality score was observed along an alignment two (or more) times the total acreage of direct impacts adding the two (or more) aquatic areas was reported in the summary table for that FLUCFCS code High Quality for that alignment. The same approach will be taken for indirect impacts.

The UMAM process as applied here consists of the following:

1. Assessment Area. The Assessment Area consists of the direct impact area plus the area within 300 ft. on each side of each Ridge Road Alternative direct impact area. For each alignment, wetlands and steams in the alignment (direct impacts) and wetlands and streams within 300 ft on each side of the alignment (indirect impacts) were identified and mapped with the totality of wetlands and streams within 300 ft. of any alignment being referenced as the Assessment Area.

2. A description of the “optimal” or “ideal” condition. The appropriate description is used for each area to be assessed and is a basis for scoring the quality or function of the actual wetlands in the Assessment Area. The “optimal” area would receive a perfect “10” score on each of the UMAM criteria (for an overalll UMAM quality score of 1.0). By contrast, an upland would receive a 0 on each criterion. For this assessment, the most complete available published descriptions of each wetland and stream type, without direct or indirect human impacts to the UMAM function considered, were used as a surrogate for a "reference wetland".

3. A description of the current condition.

4. Scoring of the current condition (the UMAM quality score between 0 to 1.0 for the polygon and the assigned "quality score").

Optimal Condition

For scoring, current condition is compared with “optimal condition” or “ideal condition” which requires a determination of what a wetland or stream area “should be” –To make this determination, a variety of tools were used:

- Historical aerial photography

- Hydrogeomorphic classification (HGM) Wetland Research Program Technical Report WRP-DE-4, Mark M. Brinson (August 1993), and more specifically for peninsular Florida depressional wetlands, Noble et al. (2004) and wet pine flats (Rheinhardt et al. 2002), and blackwater rivers (Uranowski et al. 2003).

- 26 Communities of Florida, Soils Conservation Service (February 1981) to the extent not superceeded by more recent methods.

- Florida Natural Areas Inventory (2010) Natural Communities of Florida and Florida Land Cover Classification System (Kawula 2009). The Florida Land Cover Classification was a joint effort by the FNAI and state agencies to develop a consistent classification system that can be used by state land managers, and it includes disturbed land cover types as well as the natural communities covered by the Natural Communities of Florida.

- Florida Land Use, Cover and Forms Classification System [FLUCFCS] (FDOT 1999). FLUCFCS is applicable to optimal condition only for those FLUCFCS codes that represent unaltered plant communities. FLUCFCS is based on aerial interpretation only and there is no distinction in the manual between natural communities and the types of land cover that can develop due to hydrologic alteration, fire exclusion, or other anthropogenic disturbances.

Of these, the most detailed relevant description of function is from an HGM procedures for depressional wetlands in central Florida (Noble et al. 2004), wet pinelands flats (Rheinhardt et al. 2002), and blackwater rivers (Uranowski et al. 2003). For each of these community types, the FNAI natural communities descriptions are also extensive (FNAI 2010), and the FNAI descriptions include other types of wetland communities that lack HGM studies. The HGM method, 26 Communities of Florida, and FLUCFCS are included by reference in the UMAM rule. The specific HGM methods and FNAI descriptions are generally both more recent than the UMAM rule and provide a much greater level of detail than the references in the rule.

The list of "optimal" or "ideal" conditions is provided below. Each of the optimal conditions listed below would not be impacted by anthropogenic impacts such as draining or flooding and would not have any invasive plant or animal species present.

- Dome swamp, cypress dome – Depressional wetland, generally round, closed or connected lows in a generally flat landscape. Soils are often, but not always, organic. When organic soils occur, they are thickest near the center of the wetland, which usually has the longest period of inundation. Small or large and shallow isolated depression in sand substrate with peat accumulating toward center; in the vicinity of the alternatives, partial clay lenses are known to occur at depth, occurring within a fire-maintained community; seasonally inundated typically with a hydroperiod averaging about 270 days; still water; occasional or rare fire; forested, canopy often tallest in center; pond cypress, swamp tupelo. Component wetland areas may be mapped as FLUCFCS 613, 617, 621, 627, or 630 depending on canopy, logging history, and hydrologic condition, and there can be areas of deep herbaceous marsh in the center where the wetland is too deep for trees. For analysis purposes, cypress fringes, where mapped, were considered to function similarly and are included in this ideal, they merely have deeper cores that are marsh or lake. Within the alternatives analysis area, most of these wetland areas were mapped as FLUCFCS 621. Detail:

    - HGM: http://el.erdc.usace.army.mil/elpubs/pdf/trel04-3.pdf,
    - FNAI : http://www.fnai.org/PDF/NC/Dome_Swamp_Final_2010.pdf

- Herbaceous marsh, depression marsh, basin marsh – Marshes are herbaceous wetlands ranging from very small to quite large. Larger wetlands have peat substrates toward the center. All are seasonally inundated; isolated or with drainage to other wetlands; and have occasional or rare fire which can be important to elimination of woody species that may otherwise colonize; Species composition varies with depth and hydroperiod. Component wetland areas are usually mapped with FLUCFCS as 641, 643, 616, or 644. Small areas with 500 series FLUCFCS codes were included within the marshes. Some have fringing cypress wetland areas which may or may not be mapped or which may be assigned 621 codes. Detail:

    - HGM: http://el.erdc.usace.army.mil/elpubs/pdf/trel04-3.pdf, and
    - FNAI: http://www.fnai.org/PDF/NC/Basin_Marsh_Final_2010.pdf

- Wet meadow, wet prairie, wiregrass savanna - Wet prairies and shallow wetlands with sand or clayey sand substrate; usually saturated but rarely inundated. Fire is frequent (2-3 years); treeless, dense herbaceous community with few shrubs; wiregrass, blue maidencane, cutthroat grass, wiry beaksedges, pipeworts, pitcherplants, yellow-eyed grasses. Component wetland areas are typically mapped as FLUCFCS 643 or not mapped, and the descriptors of the FLUCFCS 643 as mapped by SWFWMD (2010, 2011) are for short hydroperiod marshes. Others are mapped as FLUCFCS 625 or not specifically mapped. For detail:

    - FNAI: http://www.fnai.org/PDF/NC/Wet_Prairie_Final_2010.pdf

- Wet flatwoods, wet pine flat – Wet flatwoods are similar to wet prairies but have some trees, usually slash pine. They have sand substrates; seasonally inundated; frequent fire (2-4 years for

grassy wet flatwoods); closed to open pine canopy with grassy understory; slash pine, gallberry, sweetbay, cabbage palm, wiregrass, and little blue maidencane. Usually mapped as FLUCFCS 625 but may be lumped with other wetland types. For detail:

  - FNAI: http://www.fnai.org/PDF/NC/Wet_Flatwoods_Final_2010.pdf and
  - HGM: http://el.erdc.usace.army.mil/elpubs/pdf/trel02-9.pdf.

- Bottomland Forest and Floodplain swamp – Wetlands along or near rivers and streams with organic/alluvial substrate; seasonally inundated; rare or no fire; closed canopy dominated by cypress and/or black gum. Typically bordered by a narrow band of bottomland forest consisting of hardwoods, mostly laurel oak and red maple. In the study area, the bands of swamp and bottomland forest are typically narrow and not mapped separately. Found along Five-mile Creek, the Pithlachascotee River, the Anclote River and tributaries. Component wetland areas are typically mapped as FLUCFCSC 615, 617 or 621. The stream itself is not mapped with a FLUCFCS code in the study area. Detail:

  - FNAI: http://www.fnai.org/PDF/NC/Floodplain_Swamp_Final_2010.pdf and
  - HGM: http://el.erdc.usace.army.mil/wetlands/fl-riverine.cfm.

All of the marshes are Palustrine Emergent and all of the forested wetlands are Palustrine Forested in the Cowardin system (Cowardin et al. 1979).

Current Condition

Current condition was assessed based on best available data which included the FLUCFCS geographical information system (GIS) layer of the area as provided by the Southwest Florida Water Management District in 2011 (FDOT 1999, SWFWMD 2010, 2011), aerial photographic interpretation, and consultant site knowledge.

FLUCFCS was supplemented by current and recent aerial photography obtained from Google Earth (January 2014), and was supplemented by site knowledge based on previous site visits. Information from these general methods is supplemented by field experience. Since 1988, members of the field team have personally seen and assessed most of the wetlands along most of the alternatives. Many of them have been assessed multiple times. While many visits were not associated with this alternatives analysis, some occurred as recently as April, 2014.

The information provided by FLUCFCS included the dominant species that can be seen on aerial photography. The features were photointerpreted by SWFWMD at 1:8,000 using 2011 1-ft color infrared (CIR) digital aerial photographs. FLUCFCS describes cover and any one wetland can include multiple types of cover. FLUCFCS does not include any information on the subcanopy or groundcover or any information on hydrology or hydrologic change.

Scoring

Based on UMAM criteria, a “criteria score” from 0 to 10 was assigned to each wetland area, for each of the following UMAM evaluation criteria

- Location and landscape support,
- Water environment, and
- Community structure.

A single “quality score” was determined by summing the three criteria scores for each wetland area and dividing that value by 30 to yield a number between 0 and 1. These were interpreted as “high”, “medium”, “low” quality descriptors based on numeric quality score of 0.7 to 1.0 (High), 0.4 to 0.69 (Medium) and 0 to 0.39 (Low) as specific numeric values could lead to the assumption of a higher degree of precision and accuracy than is appropriate based on the underlying data used in the analysis.

To provide a summary for each alternative, an area weighted average of the numeric quality scores for the wetland areas was computed and a summary “high”, “medium”, “low” value was provided for the alternative.

The detailed scoring for location and landscape support, water environment and community structure were determined based on the data available for the alternatives analysis (FLUCFCS, aerial interpretation, previous experience with the systems in question). Personal experience includes site visits conducted for Ridge Road for wildlife surveys, for other projects potentially impacted by one or more alternatives, and during recreational visits to the Serenova Tract. No polygon specific onsite UMAM assessments were conducted for this alternatives analysis.

2.0 Findings

Acreage of Impacted Areas

Acreages of direct and indirect impacts are included below for each alternative.

Table F-2. Direct and Indirect impacts to wetlands, by alternative

Alternative	Acreage of Direct Impacts	Acreage of Indirect Impacts
2	21.6	192.9
3	27.1	206.6
4	27.2	204.3
5	27.9	204.5
6	21.8	199.1
7	21.8	207.0
8	2.6	112.0
9	1.2	155.8
10	22.2	171.7
11	0.2	134.0
12	13.4	265.2
13	1.4	208.0
14	14.3	269.2
15	26.5	342.7
16	13.4	286.7
17	13.7	281.6

These acreages differ from those previously provided in that shadows under bridges and other indirect impacts were treated differently. Overall, the acreage of direct impacts is lower than in previous analyses. The acreage of indirect impacts includes areas under bridges and is tallied as the entirety of the indirect impact acreage.

The direct impacts can be separated into forested (Palustrine Forested) and non-forested (Palustrine Emergent). In addition, most alternatives had some impact on man-made features (Surface Waters) notably drainage swales along roads, borrow ponds, and stormwater treatment areas. Total acreages of direct impacts to palustrine forested and emergent wetlands and to surface waters are shown in Table F-3. Map F-2 provides a summary of wetlands along the routes by Cowardin wetland type. Map Set F-8 provides detailed Cowarding wetland type maps for each alternative.

Table F-3. Summary of Direct Impacts by Cowardin wetland type. Acreage of impacts to surface waters is included.

Alternative	Total Direct Impacts to Wetlands	Acreage of Impacts to Palustrine Forested	Acreage of Impacts to Palustrine Emergent	Acreage of Impacts to Surface Waters
2	21.6	19.0	2.6	1.2
3	27.1	21.2	5.9	0.3
4	27.2	20.4	6.8	1.2
5	27.9	21.7	6.2	0.3
6	21.8	17.2	4.6	0.3
7	21.8	17.2	4.6	0.3
8	2.6	2.3	0.3	0.0
9	1.2	0.7	0.5	2.2
10	22.2	14.9	7.3	1.8
11	0.2	0.2	0.0	0.8
12	13.4	8.2	5.2	2.4
13	1.4	1.2	0.2	0.9
14	14.3	9.1	5.1	1.5
15	26.5	18.5	8.1	1.7
16	13.4	10.4	3.0	0.2
17	13.7	10.5	3.2	1.0

** Totals sometimes appear to vary from sum of forested and emergent due to rounding*

The least acreage of impact is for alternative 11. The greatest is for alternative 5. In general, the alternatives that follow existing roadways impact less acreage of wetlands than alternatives that are in natural and agricultural lands. Indirect impacts are lowest for alternatives with single routes. While having two narrower routes to compose an alternative tended to result in direct impacts intermediate between those that would occur if a single wider version of either route was chosen. However, those alternatives that encompass two routes have larger indirect impacts than would occur if a single wider version of either route was chosen.

Wetland Quality

Summary maps were prepared that graphically show the steps of the wetland quality analysis. The ideal types were mapped and are shown in Map F-3. As obvious from the maps, the most abundant ideal wetland type was dome swamp or cypress swamp. Other ideal wetland types that were assigned include bottomland forest/floodplain swamp which occurred along stream systems, wet prairies that occurred predominantly along the edges of dome swamps, herbaceous marshes, and wet flatwoods.

FLUCFCS maps were used to document existing land cover types and are shown in Map F-4. The most common wetland type was FLUCFCS 621, cypress, which occurred primarily in isolated and semi-isolated wetland systems. Stream swamps (FLUCFCS 615) were also common. Other cover types were much less common. In general, the FLUCFCS categorizations were in alignment with the historic ideals, though there were areas where the historic “ideal” was no longer recognizable, and the current system was highly disturbed and had a FLUCFCS indicative of hydrological change or land use management that changed the canopy of the wetland. Wet prairies and marshes were much less common than forested systems.

The location and landscape support parameter is shown in summary Map F-5. The scores were highest in large natural areas and lowest in road-dense, developed settings. Agricultural areas were intermediate. Where localized land use practices could be detected by aerial interpretation, scores were adjusted upward or downward to reflect these practices. The aerial interpretation was supplemented by consultant familiarity with the area.

The water environment score was based on presence or absence of alterations (such as ditches, and borrow ponds adjacent to or in wetlands), known history of public water supply use, and consultant site knowledge. Public water supply use continues in the Serenova Tract of the Starkey Wilderness Area, but

it has been cut back considerably since the previous Ridge Road wetland assessment in 2005. The Starkey and North Pasco wellfields operated by Tampa Bay Water (TBW) are now connected by pipeline to the TBW central system. This connection has allowed TBW to "rest" these wellfields. The Starkey Wellfield area has shown improvements in wetland condition since 2007 when the pipeline was put into service. However, the results of the 2013 RRE helicopter surveys suggest that those parts of the alignments on the Serenova Tract of the Starkey Wilderness Area (where the North Pasco Wellfield is located) were predominantly dry throughout the time period in 2013 when birds would most need to forage (during the breeding season), so this area may continue to be impacted by water withdrawals from the wellfields. However, these same wetlands had standing water during much of 2014. Overall, wetlands within the Serenova Tract scored high in quality. Other wetlands, including wetlands on the Bexley property, scored moderate in quality. A few wetlands near Five-mile Creek and in other areas with major alterations to wetland hydrology, such as some of those west of the Pithlachascotee River, scored lower. For specific locations, please refer to Map F-6.

The community structure score was based on a combination of aerial interpretation and FLUCFCS as shown on summary Map F-7. Unnatural canopy gaps (such as abnormally thin cypress trees, some logging practices, and FLUCFCS codes that indicated that canopy composition has shifted away from the ideal were score low. Known abundance of invasive species in the understories (primarily along roadways) reduced the scores as did evidence of current or recent grazing. No wetlands met the ideal condition, but those wetlands completely surrounded by extensive natural uplands areas scored the highest.

Based on the above, the Quality scores were computed. The quality scores are shown in summary Map F-8 and detailed maps are provided for each alternative in Map Set F-10. The overall summary of wetland quality is shown in Table F-4.

Table F-4. Average quality of direct wetland impacts, by alignment

Alternative	Quality of Impacts
2	M
3	M
4	M
5	M
6	M
7	M
8	M
9	M
10	M
11	M
12	M
13	M
14	M
15	M
16	M
17	M

The maps depicting quality scores show that there are differences in quality among the different wetlands along each route. That all routes summarize to "Medium" in quality is largely due to the distribution of wetlands of varying quality along the routes. In addition, many wetland polygons identified as High quality were only marginally above 0.7 score, borderline with Medium quality.

In general, the Starkey Wilderness Area, where most wetlands have natural vegetation and few alterations, had the highest quality wetlands. The lowest quality wetlands were found along roadways, adjacent to areas that have been developed and in the Five-mile Creek area where the wetlands were part of a stream that was previously highly altered by sand mining operations. Wetlands in agricultural

areas, where the surrounding uplands are mostly pasture and pine plantation, were intermediate in quality between the two extremes.

All alternatives that traverse the Starkey Wilderness Area have predominantly Low quality wetlands west of the Pithlaschotee River, High quality wetlands withing the Starkey Wilderness Area, Medium quality wetlands between the Suncoast Parkway and Five-mile Creek, and Low quality wetlands along and north of Five-mile Creek. Thus while the highest quality wetlands were found along these alternatives, those portions of the alternatives at the western and eastern ends of the alignments were some of the lowest quality wetlands, resulting in an overall Medium quality score.

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