FLORIDA SOUTHEAST CONNECTION PROJECT

RESOURCE REPORT 7

Soils

FERC Docket No. PF14-2-000

Pre-Filing Draft

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Filing Requirement	**Location in Environmental Report**
☒ Identify, describe, and group by milepost the soils affected by the proposed pipeline and aboveground facilities. *(§380.12 (i) (1))*	Section 7.2 Table 7.2-1 Appendix 7B
☐ For aboveground facilities that would occupy sites over 5 acres, determine the acreage of prime farmland soils that would be affected by construction and operation. *(§380.12 (i) (2))*	Not Applicable
☒ Describe, by milepost, potential impacts on soils. *(§§ 380.12 (i)(3) and (4))*	Section 7.3 Table 7.2-1
☒ Identify proposed mitigation to minimize impact on soils, and compare with the staff's Upland Erosion Control, Revegetation, and Maintenance Plan. *(§380.12(i)(5))*	Section 7.4

ACRONYMS AND ABBREVIATIONS

BMPs	Best Management Practices
Certificate	Certificate of Public Convenience and Necessity
E&SCP	Erosion and Sediment Control Plan
FDEP	Florida Department of Environmental Protection
FERC	Federal Energy Regulatory Commission
FPL	Florida Power & Light Company
FSC	Florida Southeast Connection, LLC
FSC Plan	Upland Erosion Control, Revegetation and Maintenance Plan
FSC Procedures	Wetland and Waterbody Construction and Mitigation Procedures
FSC Project	Florida Southeast Connection Project
HDD	horizontal directional drill
MEPAS	Multimedia Pollutant Assessment System
MMcf/d	million cubic feet per day
MP	milepost
MP	milepost
NGA	Natural Gas Act
NRCS	Natural Resource Conservation Service
NRCS	Natural Resource Conservation Service
PAR	permanent access road
Sabal Trail	Sabal Trail Transmission Pipeline Project
SPCC Plan	Spill Prevention, Control and Countermeasure Plan
SSURGO	Soil Survey Geographic Database
TAR	temporary access road
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
WEG	Wind Erodibility Group

7.0 RESOURCE REPORT 7 – SOILS

7.1 INTRODUCTION

Florida Southeast Connection, LLC ("FSC"), a subsidiary of NextEra Energy, Inc., is seeking a Certificate of Public Convenience and Necessity ("Certificate") from the Federal Energy Regulatory Commission ("FERC") pursuant to Section 7(c) of the Natural Gas Act ("NGA") authorizing the construction and operation of an approximately 127 mile natural gas pipeline known as the Florida Southeast Connection Project ("FSC Project"). The FSC Project is designed to meet the growing demand for natural gas by the electric generation, distribution, and end use markets in Florida. The FSC Project will also provide additional natural gas supply diversity through a connection to the new Sabal Trail Transmission Pipeline Project ("Sabal Trail") via a new interconnection hub in central Florida ("Central Florida Hub"). The Sabal Trail Project is the subject of a separate, but related, certificate filing to the FERC.

The FSC Project will increase natural gas transportation capacity and availability to southern Florida by adding a new third pipeline in central and southern Florida. Upon the anticipated in-service date of May 2017, the FSC Project will be capable of providing a minimum of 600 million cubic feet per day ("MMcf/d") of natural gas to an existing gas yard at Florida Power & Light Company's ("FPL") Martin Clean Energy Center.

The FSC Project involves the construction and operation of approximately 127 miles of up to 36-inch-diameter pipeline and the construction and operation of one meter station (known as the Martin Meter Station). The FSC Project pipeline will start in Osceola County, Florida at the interconnection with Sabal Trail within the Central Florida Hub. The pipeline will traverse Polk, Osceola, Okeechobee, St. Lucie, and Martin Counties, terminating at the Martin Meter Station located at the Martin Clean Energy Center in Martin County, Florida. In addition, FSC will install a pig launcher at the start of the FSC Project and a pig receiver at the end of the FSC Project. Resource Report 1 provides a complete summary of the FSC Project facilities (Table 1.2-1) and a location map of the FSC Project facilities (Figure 1.2-1).

This Resource Report 7 describes the soil resources of the FSC Project area for the pipeline facilities and the new aboveground facilities.

7.2 SOILS IN THE FSC PROJECT AREA

The descriptions and characteristics of soils discussed in this Resource Report were compiled from a variety of data sources including soil surveys published by the U.S. Department of Agriculture ("USDA") – Natural Resource Conservation Service ("USDA-NRCS" or "NRCS") and website databases maintained by the USDA-NRCS (USDA-NRCS, nd). Soil surveys referenced in this Resource Report include those prepared by the NRCS for Okeechobee, Osceola, St. Lucie, Martin, and Polk Counties in Florida (USDA – NRCS, 1971; 1979; 1980; 1981; 1990).

Soils within the FSC Project area were mapped utilizing the USDA-NRCS digital Soil Survey Geographic Database ("SSURGO"), which includes geospatially referenced Geographic Information System soil map unit polygons at a 1:24,000 scale (USDA-NRCS, 2012). The SSURGO contains the most detailed level of soil mapping performed by the NRCS, and corresponds with or supersedes the original county soil survey mapping.

Descriptions of each of the soil series impacted by the FSC Project are provided Appendix 7A. Tabular summaries of relevant characteristics of these soils are provided in Table 7.2-1 and Appendix 7B.

7.2.1 Soil Series Descriptions

This section describes each soil type crossed by the FSC Project. The five soil forming factors (parent material, climate, topography, biological factors, and time) all have played a role in the formation of Florida soils (Shober and Obreza, 2013). Marine forces have impacted most Florida soils as sea levels have fluctuated throughout geologic time, resulting in marine sediments being the most abundant parent material in Florida; however, some soils have formed from decaying organic matter or eroded sediments from the north (Shober and Obreza, 2013). Florida's warm, wet climate acts to speed the breakdown of parent materials to form the soil. Biological factors such as animal and microbial activity and native vegetation also influence the physical and chemical properties of the soil (Shober and Obreza, 2013). Florida's soils have had little geologic time to form, but there is still a great deal of variability throughout the state (Shober and Obreza, 2013). For more detailed geology information, refer to Resource Report 6 and for vegetation information, refer to Resource Report 3.

Table 7.2-1 summarizes the acreage of each soil type to be impacted within each county. Refer to Appendix 7B for a list of specific characteristics of each soil type by milepost ("MP"). Specific soil characteristics listed in these tables include: wind and water erosion potential, USDA farmland designation, hydric soil status, drought potential, compaction potential, and depth to bedrock. Additional information regarding hydric soils in relation to wetlands is provided in Resource Report 2.

7.2.1.1 Soils Crossed by the FSC Pipeline

Ninety-three soil types are crossed by the FSC Pipeline. Soils map unit descriptions and their associated map unit symbols (shown in parentheses) are provided in Appendix 7A. A detailed listing of each soil type crossed by the pipeline is provided in Appendix 7B. A summary of the soil types crossed by MP is provided in Table 7.2-1.

7.2.1.2 Soils at Martin Meter Station

Three soil map units occur at the new Martin Meter Station at the southern terminus of the FSC pipeline (MP 126.8): Oldsmar fine sand (16-Martin), Holopaw fine sand (66), and Riviera fine sand, depressional (49). Descriptions of these soil types are provided in Appendix 7A. These soil map units are also included in Appendix 7B, which identifies specific characteristics of each soil type by MP. Note that the Receiver Site is within the Martin Meter Station and has the same soil types described above.

7.2.1.3 Launcher Site

One soil map unit occurs at the new Launcher Site at the northern origination site of the FSC pipeline (MP 0.0), which is described in Appendix 7A: Immokalee fine sand (16). This soil map unit is also included in Appendix 7B, which identifies specific soil characteristics.

7.2.2 Access Roads

No new permanent access roads will be constructed as part of the FSC Project. To the extent feasible, existing public and private road crossings along the proposed FSC pipeline route will be used as the primary means of accessing the right-of-way. A significant portion of the 127 miles of the proposed pipeline facilities will be adjacent to existing roadway, and/or utility rights of way. These established rights of way are either existing roads or typically have existing access roads that can be utilized to access the proposed pipeline facilities. Some upgrades (tree trimming, addition of gravel, backblading, etc.) may be required in selected areas to improve the existing condition of degraded access roads or to restore access roads after use. The existing access roads are generally built on fill materials and have previously been developed for other land uses. Therefore existing access roads are not described further in this Resource Report.

7.2.3 Contractor Yards and Staging/Storage Areas

Five contractor yards, one staging area, and two storage areas will be located along or proximate to the proposed pipeline route. To avoid and minimize soils impacts, FSC is proposing to temporarily use existing open areas with existing industrial or commercial land use. These sites are located upon fill materials or other previously disturbed soils. A limited amount of minor grading and vegetation clearing may be needed in certain temporary construction yards to allow for safe passage of equipment and to prepare a work surface for safe storage and stockpiling of equipment and construction materials. Since these are existing industrial and commercial areas, and because no new areas of soil disturbance or significant earthwork are anticipated, there will be no significant impact to existing soil properties at the contractor yards, or staging and storage areas. Soils at these areas are therefore not described further in this Resource Report. These areas will be maintained and restored upon completion of the FSC Project. Disturbance associated with construction activities will be minimized and mitigated through the application of the FSC's Plan and Procedures as provided in Appendix 7C.

7.2.4 Temporary Easements and Work Spaces

A limited amount of grading and vegetation clearing may be needed in certain temporary easements and work spaces as needed to facilitate pipeline construction. Since these areas are predominantly existing open areas or industrial/commercial areas adjacent to the FSC pipeline right-of-way or new aboveground facilities, there will be no significant impact to existing soil properties at the temporary easements and work spaces. The temporary easements and work spaces will be maintained and restored upon completion of the FSC Project. Disturbance associated with construction activities will be minimized and mitigated through the application of the FSC's Plan and Procedures as provided in Appendix 7C. Impacts to soil types within the temporary easements and work spaces during construction are included in the calculations of total impact area to soils in Table 7.2-1 and Appendix 7B.

7.3 CONSTRUCTION AND OPERATION IMPACTS

Land clearing and grading, aboveground facility construction, and installation of the pipeline facilities will impact soils within the FSC Project area. The following sections discuss potential soil impacts associated with FSC Project activities including: prime farmland and farmland of unique importance (Section 7.3.1); soil erosion (Section 7.3.2); hydric soils (Section 7.3.3); droughty soils (Section 7.3.4); soil structure and compaction (Section 7.3.5); stony/rock soils (Section 7.3.6); introduction of rock into topsoil (Section 7.3.7); and contaminated soil (Section 7.3.8). Refer to Appendix 7B for a listing of soil properties pertinent to potential soil impacts for each soil map unit crossed by the FSC pipeline and aboveground facilities.

7.3.1 Prime Farmland and Farmland of Unique Importance

The FSC Project is not located on prime farmland, though it is located on farmland of unique importance, which is defined as: land other than prime farmland that is used for production of specific high-value food and fiber crops. Farmland of unique importance has the special combination of soil quality, location, growing season, and moisture supply needed to economically produce sustained high quality or high yields of specific crops when treated and managed according to acceptable farming methods. Examples of such crops include citrus, tree nuts, olives, fruits, and vegetables (USDA-NRCS, 2000). The soil classifications along the FSC Project that are within farmland of unique importance are listed in Appendix 7B.

FSC Pipeline

The FSC pipeline will cross 71.8 miles totaling 880.7 acres of soils classified as farmland of unique importance (Appendix 7B).

Martin Meter Station

The three soil types impacted at the new Martin Meter Station, which total 2.6 acres, are classified as farmland of unique importance.

Launcher Site

The one soil type at the new Launcher Site, which totals 0.4 acres, is classified as farmland of unique importance.

7.3.2 Soil Erosion

On average, Florida receives 40 to 60 inches of rain each year from about 130 storm events, and while about 80 percent of the storms are small, with less than one inch of rainfall, the State of Florida also experiences torrential downpours and hurricane rains (FDEP, 2008). Wind erosion is also a significant cause of soil loss, especially in peninsular Florida (FDEP, 2008). Winds blowing across unvegetated disturbed land pick up soil particles and carry them along (FDEP, 2008).

Temporary exposure of bare or unvegetated soil during FSC Project construction could pose a risk of soil erosion. The erosion potential of soils in the FSC Project area is listed in Appendix 7B. Soil disturbance associated with construction activities will be minimized and mitigated through the application of Best Management Procedures (“BMPs”), as provided in FSC’s Plan and Procedures as provided in Appendix 7C. Measures to be taken to minimize and mitigate soil erosion and sedimentation are discussed in Section 7.4.3.

Erosion will not occur in paved areas crossed by pipeline facilities since right-of-way grading will not be needed and temporary exposure of unvegetated soils will be limited to the pipeline trench and spoil piles.

7.3.2.1 Water Erodibility

The potential for soils to be eroded by water may be evaluated using the soil’s “K factor.” The K factor represents a relative quantitative index of the susceptibility of bare soil to particle detachment and transport by water. K factor values are primarily based upon soil texture, although organic matter content, structure size class, and permeability are also pertinent factors (MEPAS, 2010). The higher the K factor value the more susceptible the soil is to water erosion (MEPAS, 2010).

The potential for soils in the FSC Project area to be eroded by water is determined by averaging K factor values for all soil horizons for each soil type. K factors were obtained from the USDA-NRCS Web Soil Survey (NRCS, nd). Based on the average K factor, each soil type was grouped into a water erosion class of “Low,” “Moderate,” and “High.” Low K values ranged from 0.02 - 0.20, moderate K values ranged from 0.20 to 0.40, and high K values ranged from 0.40 to 0.69. For map units comprised of a complex of different soil types, the soil type with the most limiting average K factor was used to categorize the map unit into a low, medium, or high class.

The soil erosion potential class for each soil type in the FSC Project area is provided in Appendix 7B.

FSC Pipeline

There are no soil types that occur along the FSC pipeline route that have a high risk of water erodibility. One soil type, Chobee loamy sand, depressional, found along approximately 0.1 miles and 2.6 acres of the FSC Project in Martin County, is identified as having a moderate risk of water erodibility. The remainder of the soil types crossed by the pipeline has either low or no risk of water erodibility.

Martin Meter Station

All three soil types located at the proposed Martin Meter Station site have low potential to be eroded by water processes (Appendix 7B).

Launcher Site

The one soil type located at the proposed Launcher Site has low potential to be eroded by water processes (Appendix 7B).

7.3.2.2 Wind Erodibility

Wind Erodibility Groups ("WEGs") are primarily based upon soil texture, clay content, and rock fragment content. WEGs may range from 1 to 8, with 1 being the highest potential for wind erosion, and 8 the lowest. WEG data was obtained from the USDA-NRCS Web Soil Survey (NRCS, nd). WEG data was not available for some map units comprised of paved/developed areas, fill soils, and some wetland soils. Where WEG data was not available, a WEG of 8 was assigned to map units comprised entirely or principally of paved areas or wetlands, and a WEG of 5 was assigned to map units comprised of fill materials and natural soils. This is consistent with the WEGs assigned by the NRCS to the other comparable map units in the FSC Project area.

FSC Pipeline

Twelve soil types have a WEG of 8, which occur along 8.1 miles and 90.7 acres of the FSC pipeline in Polk, Osceola, St. Lucie, and Martin Counties. Three soil types have a WEG of 5, occurring along 0.3 miles and 3.4 acres in Polk, Osceola, and St. Lucie Counties. Two soil types have a WEG of 2 occurring along 0.04 miles and 4.4 acres in Osceola, Okeechobee, and St. Lucie Counties. The remaining 118.2 miles and 1,430.0 acres of the soil types crossed by the pipeline have a WEG of 1.

Martin Meter Station

All three soil types at the proposed Martin Meter Station have a WEG of 1.

Launcher Site

The one soil type at the proposed Launcher Site has a WEG of 1.

7.3.3 Hydric Soils

Hydric soils include soils developed under sufficiently wet conditions to support the growth and regeneration of hydrophytic vegetation (USDA-NRCS, nd(a)). Soils that are sufficiently wet because of artificial measures are included in hydric soils (USDA-NRCS, nd(a)). Also, soils in which the hydrology has been artificially modified are hydric if the soil, in an unaltered state, was hydric (UDSA-NRCS, nd(a)). Some series designated as hydric have phases that are not hydric depending on water table, flooding, and ponding characteristics (USDA-NRCS, nd(a)).

The hydric status for each soil type in the FSC Project area is listed in Appendix 7B.

FSC Pipeline

The FSC pipeline will cross 36.0 miles totaling 404.9 acres of hydric soils.

Martin Meter Station

Two of the soil types at the proposed Martin Meter Station are hydric: Holopaw fine sand (1.3 acres), and Riviera fine sand, depressional (0.4 acres).

Launcher Site

The one soil type at the proposed Launcher Site is not a hydric soil.

7.3.4 Droughty Soils

Droughty soils include those that have a texture of sandy loam or coarser and are moderately to excessively well drained. Droughty soils are identified in Appendix 7B.

FSC Pipeline

The FSC pipeline will cross 30.3 miles totaling 376.4 acres of droughty soils.

Martin Meter Station

None of the three soil types at the proposed Martin Meter Station are droughty soils.

Launcher Site

The one soil type at the proposed Launcher Site is not a droughty soil.

7.3.5 Soil Structure and Compaction

Compaction and associated damage to soil structure can inhibit infiltration of rainwater, increase runoff, and impede vegetation root establishment. Given the land use context of much of the area crossed by the pipeline, many soils along the proposed FSC pipeline route have probably been compacted to some extent due to proximity to existing roadways, utility corridors, and other disturbed areas, and are covered by paved surfaces in some areas. The potential for soils along the FSC Project pipeline route to become compacted was evaluated based on soil drainage class. Soils that are very poorly drained or poorly drained were classified as having a high potential for compaction. Soils that are somewhat poorly drained to moderately well drained were classified as having a moderate potential for compaction, and soils that are well drained to excessively drained were classified as having a low potential for compaction.

The soil compaction potential for each soil type along the proposed FSC pipeline route is listed in Appendix 7B. The hydric soil status and drainage class of soils along the FSC pipeline route are also provided. Section 7.4.5 describes measures that will be taken to avoid and minimize damage to soil structure and prevent soil compaction in poorly drained and very poorly drained soils.

FSC Pipeline

Approximately 89.4 miles totaling 1,068.2 acres of the FSC pipeline will cross soils with a high potential for soil compaction, structural damage, and rutting; 16.7 miles and 205.5 acres will cross soils with a moderate potential; and 20.5 miles and 253.0 acres will cross soils with a low potential.

Meter Station Site

All three soil types at the proposed Martin Meter Station have a high potential for soil compaction.

Launcher Site

The one soil type at the proposed Launcher Site has a high potential for soil compaction.

7.3.6 Stony/Rocky Soils

Stony/rocky soils include those with a cobbley, stony, bouldery, shaly, channery, very gravelly, or extremely gravelly modifier to the textural class of the surface layer and/or that have a surface layer that contains greater than five percent by weight rock fragments larger than three inches. None of the soils crossed by the FSC pipeline, proposed Martin Meter Station, or proposed Launcher Site are classified as stony/rocky soils, and therefore stony/rocky soils are not discussed further in this Report.

7.3.7 Introduction of Rock into the Topsoil

The potential for introducing rock into the topsoil was evaluated based on bedrock depth, and the presence of fill materials and disturbed soils. USDA data was used to identify soil map units where depth to bedrock is generally anticipated to be less than five feet (60 inches) from the soil surface (NRCS, nd). See Section 7.4.6 for a discussion of minimization and mitigation measures for rock material in the topsoil. The depth to bedrock for each soil type within the FSC Pipeline Project area is listed in Appendix 7B.

FSC Pipeline

Bedrock depths for the soil map units crossed by the FSC pipeline are listed in Appendix 7B. A summary of the miles and acreage of pipeline crossed compared to the depth of bedrock is as follows:

- 2.5 miles and 31.0 acres with a depth to bedrock of 14 inches
- 1.0 miles and 11.6 acres with a depth to bedrock of 25 inches
- 4.3 miles and 53.6 acres with a depth to bedrock of 40 inches
- 119.0 miles and 1,432.2 acres with a depth to bedrock of greater than 60 inches

Martin Meter Station

All three soil types at the proposed Martin Meter Station have a depth to bedrock of greater than 60 inches.

Launcher Site

The one soil type at the proposed Launcher Site has a depth to bedrock of greater than 60 inches.

7.3.8 Contaminated Soil

Because the construction corridors for some pipeline segments are adjacent to existing highways and other developed areas, there is a potential for construction activities to encounter unanticipated areas of contaminated soil and associated groundwater. FSC performed a contamination assessment of the area crossed by the pipeline and did not identify any previously known areas of contamination. If FSC encounters contaminated soils during construction, standard protocol would include stopping construction in the affected area and developing a remediation plan in consultation with FERC and other agencies.

Horizontal directional drilling ("HDD") is proposed at three locations along the FSC Project, which does present the possibility of drilling fluids (e.g. bentonite) seepage entering the soil. See Section 7.4.7 for a description of minimization and mitigation measures related to contaminated soil and HDD procedures.

7.4 IMPACT MINIMIZATION AND MITIGATION

7.4.1 Existing Conditions

It is FSC's goal to minimize soil impacts by locating the proposed FSC Project facilities adjacent to existing utility rights-of-way to the maximum extent feasible. Utilizing existing rights-of-way will limit new soil disturbance by working within previously developed or disturbed soils and minimizing land use change. A substantial portion of the access ways that will be used during construction and operations of the pipeline facilities already exist. These paved, dirt, and gravel municipal and private roadways will not require substantial clearing, grading, or excavation. Some maintenance may be necessary to existing access roads in order to minimize potential safety and erosion issues.

Techniques that will be used to mitigate potential FSC Project impacts to soils are described in the FSC's Plan and Procedures, which will be used by FSC and its contractors as guidance for minimizing soil disturbance and transportation of sediments off the right of way or into sensitive resources (wetlands, streams, and residential areas) during natural gas pipeline construction.

7.4.2 Prime Farmland and Farmland of Unique Importance

As previously discussed, the FSC Project is not located on prime farmland. Where the FSC Project is located on farmland of unique importance, it will be primarily within or along existing utility right-of-ways and access ways that have been previously developed or disturbed. In addition, the FSC pipeline has been sited along property lines to the extent possible to minimize disturbance to agricultural and other land uses. Because agricultural activities (other that citrus trees and other woody vegetation) are not precluded within the permanent pipeline right-of-way, impacts on farmland of unique importance crossed by the proposed FSC Project will be limited to the construction phase, and would be minor and short-term. During construction, FSC will perform topsoil segregation in agricultural lands as needed, which include permanent or rotated croplands, hayfields, or improved pastures, and in other areas at the request of resource agencies or landowners. FSC will stockpile topsoil separately from subsoil and will replace these soil horizons in the proper order during backfill and final grading. For these reasons, no significant impacts to soils identified as farmland of unique importance are anticipated.

7.4.3 Soil Erosion

Erosion potential in areas affected by construction will increase due to clearing, grading, trenching, and backfilling. FSC's Plan and Procedures, which detail construction and restoration measures for the upland and adjacent waterbody and wetland areas, will be utilized to minimize potential impact to soil resources.

As required under the Clean Water Act, FSC will develop a Stormwater Pollution Prevention Plan (SWPPP) to address issues related to soil erosion during construction and operation. The SWPPP will include a discussion of the methods to be used for erosion and sediment control associated with the FSC Project, including typical erosion control device drawings, inspection procedures, and the requirements for record keeping.

Temporary erosion controls will be installed after initial disturbance of the soils, where necessary to minimize erosion, and will be maintained throughout construction. All temporary erosion and sediment controls will be installed in accordance with the FSC's Plan and Procedures.

The terrain of the FSC Project area is mostly flat, but major rainfall events could result in significant runoff. FSC will minimize these impacts by implementing the provisions of FSC's Plan and Procedures, and by adhering to the stipulations of any state or local stormwater permits that may be required. Measures typically would include installation of sediment filtration devices and permanent revegetation of disturbed areas. FSC's slope stabilization and restoration plans are included in the FSC's Plan and Procedures.

7.4.4 Hydric and Droughty Soils

Hydric soils occur primarily within wetlands and other wet areas along the FSC Project area while droughty soils occur in drier areas. FSC's Plan and Procedures have been adopted for use by FSC and its contractors as a guidance manual for minimizing soil disturbance and transportation of sediments off the right of way or into sensitive resources including wetlands, streams, and droughty soils during natural gas pipeline construction. Adhering to FSC's Plan and Procedures will avoid and minimize significant impacts to hydric and droughty soils where they occur.

7.4.5 Soil Structure and Compaction

Construction of the FSC Project could result in loss of soil productivity due to compaction, or damage to soil structure from heavy equipment. Soil structural damage and compaction could also result from pipeline construction during excessively wet periods. In order to minimize potential impact to soil resources, FSC will utilize the measures contained in FSC's Plan and Procedures, which detail construction and restoration measures for the upland and adjacent waterbody and wetland areas that would be affected by the FSC Project.

The FSC Project is sited parallel, as much as practical, to existing linear facilities, roads, and highways, where soils have been previously impacted and this will limit the amount of new soil disturbance. Where the FSC Project does not parallel linear facilities, road, or highways, the construction of these segments will result in soil disturbance. Construction through agricultural land requires special procedures such as topsoil stripping and segregation prior to construction, and decompaction and removal of rock following installation of the pipeline.

Upon completion of pipeline installation, route surveillance as required by 49 CFR, Part 192.613 will be used to monitor the pipeline rights of way. FSC will ensure that personnel are trained to identify signs of soil movement or subsidence. Should subsidence occur, the affected area of the pipeline will be exposed, repositioned or replaced to a stress-free state, and then properly bedded and backfilled.

7.4.6 Rock Material in the Topsoil

As indicated in section 7.3.7, soils with shallow bedrock may be encountered in the FSC Project area. Where residential land will be crossed by the FSC pipeline facilities, several measures to prevent incorporation of rock into the topsoil will be implemented in the event that bedrock is encountered within the trench depth. These measures include segregation and protection of topsoil along the trenchline, rock backfill in residential land only to the top of bedrock, and disposal of excess rock fragments in an approved manner so as to not incorporate rock fragments into topsoil layers. Through adherence to these measures, no significant increase to the rock content of the topsoil is anticipated.

7.4.7 Contaminated Soil

A project specific Spill Control Plan has been developed in order to minimize potential contamination of soil resources from spills of hazardous materials. The Spill Control Plan includes measures for spill prevention as well as detailed spill response procedures, including for HDD as previously discussed. The Spill Control Plan (Appendix 7D) along with a Hazardous Materials Discovery Plan (Appendix 7E) have been provided to address potential issues of spills and or contaminated soils.

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FLORIDA SOUTHEAST CONNECTION

TABLES

Table 7.2-1

Summary of Soil Types by County Impacted by the FSC Project

County	Soil Map Unit	Mile Post Crossed by Project Centerline	Total Acreage (for each soil type by county)	Prime Farmland or Farmland of Unique Importance	Wind Erodibility Group	K Factor	Hydric	Droughty	Depth To Bedrock	Compaction Potential
Polk	Adamsville fine sand	12.10, 12.18 - 12.22, 12.24 - 12.24, 12.30 - 12.49, 12.79 - 12.85	3.15	Farmland of unique importance	1	Low	No	No	> 60 in	Moderate
Polk	Archbold sand, 0 to 5 percent slopes	34.99 - 35.20	2.71	Not prime farmland	1	Low	No	Yes	> 60 in	Moderate
Polk	Arents-Water complex	29.25 - 29.46, 29.80, 29.84	5.02	Not prime farmland	1	Low	No	No	> 60 in	Low
Polk	Astatula sand, 0 to 5 percent slopes	2.21 - 2.33, 3.23 - 3.35, 3.61 - 3.69, 4.35 - 4.38, 4.56 - 4.63, 4.75 - 4.93, 5.02 - 5.08, 5.12 - 5.13, 5.25 - 5.34, 5.40, 6.20 - 6.29, 6.97 - 7.12, 8.57 - 8.64, 8.75 - 9.09, 29.01 - 29.25, 30.31 - 30.43, 30.50 - 30.58, 30.64 - 30.69, 30.84 - 31.91, 31.96 - 33.06, 33.14 - 33.34, 33.42 - 33.55, 33.66 - 33.89, 34.12 - 34.17, 34.28 - 34.28, 34.33 - 34.39, 34.46 - 34.99	68.00	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	Astatula sand, 12 to 20 percent slopes	7.24 - 7.30	0.53	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	Astatula sand, 5 to 12 percent slopes	2.45 - 2.49, 3.01 - 3.14, 5.13 - 5.20, 5.22 - 5.25, 5.34 - 5.42, 7.12 - 7.24, 8.69 - 8.75, 33.06 - 33.14, 33.34 - 33.34, 33.40 - 33.42, 34.23 - 34.28, 34.28 - 34.33	8.77	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	Basinger fine sand	38.49 - 38.60, 47.49 - 47.54	1.80	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	Basinger mucky fine sand, depressional	3.49 - 3.61, 3.76 - 3.91, 3.95 - 3.99, 4.04 - 4.05, 4.11 - 4.21, 5.48 - 5.52, 5.80 - 5.86, 6.80, 10.51 - 10.80, 10.92 - 10.97, 16.07 - 16.12, 16.16 - 16.19, 28.38 - 28.43, 28.95 - 28.97,	12.32	Not prime farmland	1	Low	Yes	No	> 60 in	High

Table 7.2-1

Summary of Soil Types by County Impacted by the FSC Project

County	Soil Map Unit	Mile Post Crossed by Project Centerline	Total Acreage (for each soil type by county)	Prime Farmland or Farmland of Unique Importance	Wind Erodibility Group	K Factor	Hydric	Droughty	Depth To Bedrock	Compaction Potential
		31.30, 39.40, 39.61 - 39.63, 40.07 - 40.15, 48.23 - 48.31								
Polk	Candler sand, 0 to 5 percent slopes	11.56 - 11.60, 11.65 - 11.70, 11.77 - 11.82, 12.12 - 12.18, 12.85 - 13.23, 13.54 - 15.97, 16.69 - 17.40, 17.52 - 17.65, 18.00, 18.10, 18.25 - 18.29, 18.29 - 18.49, 18.63 - 18.99, 19.98 - 22.11, 22.16 - 22.48, 22.75 - 22.79, 22.83 - 23.20, 23.27 - 23.36, 23.44 - 25.31, 25.42 - 25.92	125.91	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low
Polk	Candler sand, 5 to 8 percent slopes	23.36 - 23.44	1.21	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low
Polk	Duette fine sand	1.65 - 1.76	1.62	Not prime farmland	1	Low	No	Yes	> 60 in	Moderate
Polk	Eaton mucky fine sand, depressional	40.45 - 40.61, 40.89 - 40.96, 41.01 - 41.06	2.64	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	EauGallie fine sand	40.34 - 40.44	1.17	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	Felda fine sand	36.73 - 36.76, 38.41 - 38.49, 50.67 - 51.11, 52.26 - 52.65	11.74	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	Felda fine sand, depressional	36.08 - 36.10, 36.93 - 36.98, 41.26 - 41.35, 42.44 - 42.51	2.13	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	Felda fine sand, frequently flooded	42.07 - 42.22, 42.20	1.72	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	Floridana mucky fine sand, depressional	36.65 - 36.73, 50.70, 51.44 - 51.50, 52.80	1.35	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	Hontoon muck	1.78 - 1.93, 1.95 - 2.01, 2.02 - 2.03, 2.04 - 2.21, 9.88 - 10.41, 16.55 - 16.62, 19.11 - 19.67, 19.80	15.40	Not prime farmland	8	Low	Yes	No	> 60 in	High

Table 7.2-1 Summary of Soil Types by County Impacted by the FSC Project										
County	**Soil Map Unit**	**Mile Post Crossed by Project Centerline**	**Total Acreage (for each soil type by county)**	**Prime Farmland or Farmland of Unique Importance**	**Wind Erodibility Group**	**K Factor**	**Hydric**	**Droughty**	**Depth To Bedrock**	**Compaction Potential**
Polk	Immokalee sand	0.80 - 0.87, 1.93 - 1.95, 2.01 - 2.02, 3.10, 3.35 - 3.40, 3.91 - 3.95, 4.93 - 4.95, 4.99 - 5.02, 5.08 - 5.12, 5.20 - 5.22, 8.01 - 8.26, 8.39 - 8.46, 10.80 - 10.92, 10.97 – 11.00, 11.10 - 11.19, 35.65 - 35.86, 47.67 - 47.85, 49.30 - 49.39	15.54	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	Kaliga muck	52.40, 52.65 - 53.33, 53.40, 53.40	7.16	Not prime farmland	8	Low	Yes	No	> 60 in	High
Polk	Lynne sand	40.70 - 40.89, 41.06 - 41.26	5.59	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	Malabar fine sand	50.90, 50.90	0.00	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	Millhopper fine sand, 0 to 5 percent slopes	27.05 - 27.07	0.52	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	Narcoossee sand	16.04 - 16.07, 16.19 - 16.22, 28.70 - 28.77, 38.78 - 39.04, 39.34 - 39.38	5.69	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	Neilhurst sand, 1 to 5 percent slopes	29.84 - 30.26, 30.50, 30.50, 30.60, 30.64 - 30.64, 30.69 - 30.84	4.84	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	Nittaw sandy clay loam, frequently flooded	38.30 - 38.41	1.31	Not prime farmland	5	Low	Yes	No	> 60 in	High
Polk	Oldsmar fine sand	41.50, 41.58 - 41.99, 50.44 - 50.67, 51.11 - 51.44, 51.50 - 52.26	20.72	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	Ona fine sand	16.34 - 16.43, 16.46 - 16.54, 47.45 - 47.49, 47.54 - 47.58	2.97	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	Paisley fine sand	40.96 - 41.01	0.50	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	Placid and Myakka fine sands, depressional	0.61 - 0.67, 0.87 - 0.95, 1.51 - 1.57, 4.21 - 4.30, 4.50 - 4.56,	12.93	Not prime farmland	1	Low	Yes	No	> 60 in	High

Table 7.2-1

Summary of Soil Types by County Impacted by the FSC Project

County	Soil Map Unit	Mile Post Crossed by Project Centerline	Total Acreage (for each soil type by county)	Prime Farmland or Farmland of Unique Importance	Wind Erodibility Group	K Factor	Hydric	Droughty	Depth To Bedrock	Compaction Potential
		4.80, 4.80, 4.95 - 4.99, 5.42 - 5.48, 5.52 - 5.71, 6.10, 6.34 - 6.52, 7.00, 7.31 - 7.38, 11.10, 11.32 - 11.51, 11.61 - 11.63, 25.40, 46.69 - 46.80, 50.33 - 50.40								
Polk	Pomello fine sand	9.09 - 9.15, 35.29 - 35.51	3.35	Not prime farmland	1	Low	No	Yes	> 60 in	Moderate
Polk	Pomona fine sand	37.04 - 37.11, 37.80, 37.80, 40.40, 40.44 - 40.45, 42.66 - 42.97	4.87	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	Pompano fine sand	0.95 - 1.01, 1.08 - 1.34, 1.57 - 1.60, 1.76 - 1.78, 2.68 - 2.75, 2.81 - 3.01, 6.32 - 6.34, 6.52 - 6.76, 7.30 - 7.31, 7.38 - 7.46	9.68	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	Samsula muck	1.36 - 1.42, 2.03 - 2.04, 2.38 - 2.39, 2.51 - 2.68, 2.75 - 2.81, 3.40 - 3.49, 3.99 - 4.04, 4.63 - 4.75, 6.76 - 6.80, 6.88 - 6.91, 7.46 - 8.01, 8.26 - 8.39, 8.64 - 8.69, 9.15 - 9.37, 9.45 - 9.66, 9.70, 9.82 - 9.88, 10.41 - 10.51, 11.19 - 11.25, 12.40, 12.49 - 12.62, 16.12 - 16.16, 18.10, 18.49 - 18.63, 28.53 - 28.63, 48.95 - 48.97, 119.00	24.54	Not prime farmland	8	Low	Yes	No	> 60 in	High
Polk	Satellite sand	0.57 - 0.61, 0.67 - 0.80, 1.01 - 1.08, 1.34 - 1.36, 1.42 - 1.51, 2.30, 2.33 - 2.38, 2.39 - 2.45, 2.49 - 2.51, 5.42 - 5.42, 5.71 - 5.72, 5.78 - 5.80, 5.86 - 5.90, 6.05 - 6.11, 6.13 - 6.20, 35.51 - 35.65	9.72	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	Smyrna and Myakka fine sands	4.10, 4.30, 4.41 - 4.46, 9.37 - 9.45, 9.66 - 9.82, 11.25 - 11.32, 11.60 - 11.61, 11.63 - 11.65,	140.67	Not prime farmland	1	Low	Yes	No	> 60 in	High

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		11.70 - 11.77, 11.93 - 12.12, 12.22 - 12.24, 12.24 - 12.30, 12.62 - 12.79, 13.00, 13.20, 13.23 - 13.54, 19.04 - 19.11, 19.67 - 19.92, 28.70, 28.91 - 28.95, 28.97 - 29.01, 35.24 - 35.29, 35.86 - 35.90, 35.99 - 36.08, 36.10 - 36.65, 37.11 - 38.30, 38.60 - 38.78, 39.04 - 39.34, 39.38 - 39.61, 39.63 - 40.07, 40.15 - 40.34, 42.97 - 46.69, 46.80 - 47.45, 47.58 - 47.67, 47.85 - 48.23, 48.31 - 48.95, 48.97 - 49.30, 49.39 - 50.33, 50.40 - 50.44								
Polk	St. Augustine sand	53.33 - 53.58	2.76	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	St. Johns sand	35.90 - 35.99	0.80	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	St. Lucie fine sand, 0 to 5 percent slopes	35.20 - 35.24	0.93	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	Tavares fine sand, 0 to 5 percent slopes	1.40, 1.60 - 1.65, 3.14 - 3.23, 3.69 - 3.76, 4.05 - 4.11, 4.20, 4.30 - 4.35, 4.38 - 4.41, 4.46 - 4.50, 5.72 - 5.78, 5.90 - 6.05, 6.11 - 6.13, 6.29 - 6.32, 6.80 - 6.88, 6.91 - 6.97, 7.30, 8.46 - 8.57, 11.00 - 11.10, 11.51 - 11.56, 11.82 - 11.93, 12.00, 15.97 - 16.04, 16.22 - 16.34, 16.40, 16.43 - 16.46, 16.54 - 16.55, 16.62 - 16.69, 17.40 - 17.52, 17.65 - 18.25, 18.29 - 18.29, 18.99 - 19.04, 19.92 - 19.98, 22.11 - 22.16, 22.48 - 22.75, 22.79 - 22.83, 23.20 - 23.27, 25.31 - 25.42, 25.92 -	85.45	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate

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		27.05, 27.07 - 28.38, 28.43 - 28.53, 28.63 - 28.70, 28.77 - 28.91, 29.46 - 29.84, 30.26 - 30.31, 30.43 - 30.50, 30.58 - 30.64, 31.10, 31.91 - 31.96, 33.34 - 33.40, 33.55 - 33.66, 33.80, 33.89 - 34.12, 34.17 - 34.23, 34.39 - 34.46								
Polk	Wabasso fine sand	40.61 - 40.70, 41.35 - 41.58, 41.99 - 42.07, 42.22 - 42.44, 42.51 - 42.66	9.48	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	Wauchula fine sand	36.76 - 36.93, 36.98 - 37.04	2.41	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	Adamsville sand	53.98 - 54.16	3.20	Farmland of unique importance	1	Low	No	No	> 60 in	Moderate
Osceola	Basinger fine sand	54.30, 54.39 - 54.46, 55.75 - 55.85, 56.95 - 56.98, 57.12 - 57.16, 65.16 - 65.27, 66.26 - 66.31, 68.14 - 68.36, 69.76 - 69.87, 70.50, 71.08 - 71.10, 75.91 - 75.96, 76.77 - 76.99	12.39	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	Basinger fine sand, depressional	55.80, 56.73 - 56.76, 56.98 - 57.12, 57.55 - 57.77, 57.85 - 57.94, 66.30, 67.21 - 67.28, 68.00 - 68.13, 69.67 - 69.70, 70.58 - 70.67, 73.39 - 73.47	8.63	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	Cassia fine sand	70.16 - 70.25, 71.83 - 71.99, 72.05 - 72.17, 72.10, 72.32 - 72.37, 72.42 - 72.68, 72.94 - 73.16, 76.38 - 76.52	12.90	Farmland of unique importance	1	Low	No	No	> 60 in	Moderate
Osceola	Delray loamy fine sand, depressional	54.30, 54.35 - 54.39	4.39	Not prime farmland	2	Low	Yes	No	> 60 in	High
Osceola	EauGallie fine sand	58.92 - 59.48, 59.58 - 60.21, 60.27 - 60.34, 60.39 - 60.40,	41.82	Not prime farmland	1	Low	Yes	No	> 60 in	High

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		60.45 - 60.51, 60.83 - 61.13, 61.30 - 61.39, 61.43 - 61.64, 61.79 - 62.43, 62.84 - 63.09, 63.79 - 63.95, 63.80, 63.90, 64.15 - 64.21, 64.30 - 64.36, 64.55 - 64.68, 66.65 - 66.71, 66.87 - 66.99, 67.04 - 67.14								
Osceola	Floridana fine sand, depressional	0.46-0.51, 53.88 - 53.98	1.20	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	Holopaw fine sand	58.88 - 58.92	0.38	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	Immokalee fine sand	0.00 - 0.40, 54.16 - 54.35, 56.03 - 56.21, 56.44 - 56.73, 56.76 - 56.95, 57.38 - 57.55, 70.05 - 70.16, 73.93 - 74.04, 77.27 - 77.50	25.28	Not prime farmland	1	Low	No	No	> 60 in	High
Osceola	Kaliga muck	70.79 - 70.84, 70.87 - 70.92, 70.96 - 71.08	2.09	Not prime farmland	8	Low	Yes	No	> 60 in	High
Osceola	Malabar fine sand	59.48 - 59.58, 60.51 - 60.67, 61.13 - 61.30, 61.39 - 61.43, 61.64 - 61.79, 63.09 - 63.79, 63.95 - 64.04, 64.45 - 64.55, 65.64 - 65.75, 66.71 - 66.76, 66.80 - 66.87, 69.57 - 69.62	18.84	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	Malabar fine sand, depressional	54.30, 61.70, 61.80, 61.80, 64.36 - 64.45, 69.62 - 69.67, 69.7 - 69.76	2.07	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	Myakka fine sand	0.40-0.46, 54.46 - 55.75, 57.77 - 57.85, 57.94 – 58.00, 62.75 - 62.84, 66.24 - 66.26, 67.14 - 67.17, 67.53 - 67.62, 71.10 - 71.52, 72.50, 72.68 - 72.94, 73.29 - 73.39, 73.47 - 73.55, 74.18 - 74.92, 75.79 - 75.91, 75.98 - 76.38, 76.52 - 76.62, 76.99 - 77.22	51.95	Farmland of unique importance	1	Low	No	No	> 60 in	High

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County	Soil Map Unit	Mile Post Crossed by Project Centerline	Total Acreage (for each soil type by county)	Prime Farmland or Farmland of Unique Importance	Wind Erodibility Group	K Factor	Hydric	Droughty	Depth To Bedrock	Compaction Potential
Osceola	Narcoossee fine sand	72.37 - 72.42	1.13	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Osceola	Oldsmar fine sand	74.92 - 75.19	3.23	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	Paola sand, 0 to 5 percent slopes	73.63 - 73.77	1.75	Not prime farmland	1	Low	No	Yes	> 60 in	
Osceola	Pineda fine sand	58.73 - 58.77, 60.21 - 60.27, 60.34 - 60.39, 60.40 - 60.45, 60.67 - 60.83, 66.76 - 66.8, 66.99 - 67.04	4.47	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	Placid fine sand, depressional	77.50	0.01	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	Pomello fine sand, 0 to 5 percent slopes	73.55 - 73.63, 73.77 - 73.93	2.91	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Osceola	Pompano fine sand, depressional	74.04 - 74.18, 77.22 - 77.27	1.70	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	Riviera fine sand, depressional	58.77 - 58.88	1.34	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	Samsula muck	69.87 - 69.92, 70.84 - 70.87, 70.92 - 70.96	1.06	Not prime farmland	8	Low	Yes	No	> 60 in	High
Osceola	Satellite sand	0.51 - 0.57, 75.19 - 75.57, 75.65 - 75.79	7.17	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Osceola	Smyrna fine sand	55.85 - 56.03, 56.21 - 56.44, 57.16 - 57.38, 58.00 - 58.73, 62.43 - 62.75, 64.04 - 64.15, 64.21 - 64.30, 64.68 - 65.16, 65.27 - 65.64, 65.75 - 66.24, 66.31 - 66.65, 67.17 - 67.21, 67.28 - 67.53, 67.62 – 68.00, 68.13 - 68.14, 68.36 - 69.57, 69.92 - 70.05, 70.25 - 70.58, 70.67 - 70.79, 71.10, 71.52 -	77.87	Farmland of unique importance	1	Low	No	No	> 60 in	High

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		71.83, 73.16 - 73.29, 75.57 - 75.65, 75.96 - 75.98, 76.62 - 76.77								
Osceola	St. Lucie fine sand, 0 to 5 percent slopes	71.99 - 72.05, 72.17 - 72.32	2.73	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Okeechobee	Basinger and Placid soils, depressional	78.86 - 78.98, 80.00, 80.03 - 80.13, 80.66 - 80.71, 80.83 - 80.97, 81.11 - 81.23, 81.30, 84.33 - 84.46, 85.78 - 85.86, 90.98 - 91.07, 95.50, 95.59 - 95.65, 102.19 - 102.49	11.86	Not prime farmland	1	Low	Yes	No	> 60 in	High
Okeechobee	Basinger fine sand	95.41 - 95.59	1.78	Not prime farmland	1	Low	Yes	No	> 60 in	High
Okeechobee	Floridana, Placid, and Okeelanta soils, frequently flooded	82.00 - 82.09, 82.00, 83.05 - 83.14, 84.71 - 84.75, 85.86 - 86.02, 87.33 - 87.45, 93.94 - 94.53, 94.60, 99.20	10.58	Not prime farmland	1	Low	Yes	No	> 60 in	High
Okeechobee	Floridana, Riveria, and Placid soils, depressional	87.80, 87.80, 98.95 - 99.18	2.06	Not prime farmland	1	Low	Yes	No	> 60 in	High
Okeechobee	Immokalee fine sand	82.32 - 82.46, 84.19 - 84.29, 85.64 - 85.78, 87.20 - 87.24, 87.28 - 87.33, 87.50 - 87.79, 87.86 - 87.91, 88.06 - 88.10, 88.18 - 88.20, 88.21 - 88.30, 88.46 - 89.37, 89.59 - 89.91, 91.14 - 91.59, 91.63 - 92.35, 92.41 - 92.83, 92.98 - 93.88, 94.40, 94.53 - 94.64, 95.00 - 95.41, 95.65 - 95.95, 96.13 - 96.20, 96.41 - 98.95, 99.18 - 99.86, 100.01 - 101.63, 101.89 - 102.19	131.31	Not prime farmland	1	Low	No	No	> 60 in	High

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County	Soil Map Unit	Mile Post Crossed by Project Centerline	Total Acreage (for each soil type by county)	Prime Farmland or Farmland of Unique Importance	Wind Erodibility Group	K Factor	Hydric	Droughty	Depth To Bedrock	Compaction Potential
Okeechobee	Myakka fine sand	77.50 - 77.51, 77.88 - 78.21, 78.28 - 78.36, 78.49 - 78.86, 78.98 - 79.06, 79.19 - 79.23, 79.31 - 79.56, 79.62 - 79.83, 79.87 - 80.03, 80.13 - 80.66, 80.71 - 80.83, 80.97 - 81.11, 81.23 - 81.69, 81.88 - 81.94, 82.88 - 82.98, 83.14 - 83.26, 83.35 - 83.59, 83.81 - 84.03, 84.29 - 84.33, 84.46 - 84.71, 84.75 - 84.83, 86.02 - 86.26, 87.45 - 87.50, 87.79 - 87.86, 87.91 - 88.06, 88.10 - 88.18, 88.20 - 88.21, 88.30 - 88.46, 89.91 - 90.28, 90.41 - 90.96, 91.07 - 91.14, 91.50, 91.59 - 91.63	67.05	Farmland of unique importance	1	Low	No	No	> 60 in	High
Okeechobee	Okeelanta muck	89.37 - 89.59, 102.20, 102.49 - 102.53	2.22	Not prime farmland	2	Low	Yes	No	> 60 in	High
Okeechobee	Orsino fine sand	82.46 - 82.82, 84.83 – 85.00, 85.04 - 85.54, 86.39 - 87.20	25.32	Not prime farmland	1	Low	No	Yes	> 60 in	Moderate
Okeechobee	Pomello fine sand, 0 to 5 percent slopes	77.51 - 77.88, 78.21 - 78.28, 78.36 - 78.49, 79.06 - 79.19, 79.56 - 79.62, 82.82 - 82.88, 83.26 - 83.35, 83.59 - 83.81, 84.03 - 84.19, 85.00 - 85.04, 85.54 - 85.64, 86.26 - 86.39, 90.28 - 90.41, 92.35 - 92.41, 92.83 - 92.98, 94.64 - 95.00, 95.95 - 96.13, 96.20 - 96.41, 99.86 - 100.01, 101.63 - 101.89	38.14	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Okeechobee	St. Johns fine sand	79.23 - 79.31, 79.83 - 79.87, 81.69 - 81.88, 81.94 – 82.00, 82.09 - 82.32, 82.98 - 83.05, 90.96 - 90.98, 93.88 - 93.94	7.67	Not prime farmland	1	Low	Yes	No	> 60 in	High
Okeechobee	Udorthents, 2 to 35 percent slopes	87.24 - 87.28	0.27	Not prime farmland	1	Low	No	No	> 60 in	Low

Table 7.2-1

Summary of Soil Types by County Impacted by the FSC Project

County	Soil Map Unit	Mile Post Crossed by Project Centerline	Total Acreage (for each soil type by county)	Prime Farmland or Farmland of Unique Importance	Wind Erodibility Group	K Factor	Hydric	Droughty	Depth To Bedrock	Compaction Potential
St. Lucie	Arents, 0-5 percent slopes	109.05 - 109.14, 109.28 - 109.34	1.98	Not prime farmland	1	Low	No	No	> 60 in	Moderate
St. Lucie	Arents, 45 to 65 percent slopes	115.07 - 115.14	0.41	Not prime farmland	1	Low	No	Yes	> 60 in	Low
St. Lucie	Basinger sand	102.50, 108.19 - 108.22, 108.45 - 108.53, 110.85 - 110.96	2.95	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	Chobee loamy sand, depressional	114.51 - 114.55	0.70	Farmland of unique importance	2	Low	Yes	No	> 60 in	High
St. Lucie	Floridana sand, depressional	107.72 - 107.81, 114.89 - 115.07	2.81	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	Hallandale sand	115.14 - 115.25	0.66	Farmland of unique importance	1	Low	Yes	No	14 in	High
St. Lucie	Hilolo loamy sand	114.71 - 114.79	1.24	Farmland of unique importance	2	Low	Yes	No	> 60 in	High
St. Lucie	Lawnwood and Myakka sands	102.55 - 102.56, 102.59 - 102.60, 102.67 - 102.71, 102.75 - 103.26, 103.32 - 103.39, 103.44 - 103.65, 103.71 - 103.73, 103.76 - 103.87, 103.90, 103.90, 104.30 - 104.89, 104.94 - 104.96, 105.04 - 105.08, 105.41 - 105.47, 105.50 - 105.65, 105.72 - 105.89, 105.98 - 106.43, 106.45 - 106.85, 107.00, 107.04 - 107.06, 107.31 - 107.43, 107.88 - 108.13, 108.22 - 108.37, 108.53 - 109.05, 109.14 - 109.28, 109.34 - 109.50, 109.78 - 109.99, 110.01 - 110.78, 110.83 - 110.85, 111.80, 111.80, 111.81 -	69.72	Farmland of unique importance	1	Low	No	No	25 in	High

Table 7.2-1

Summary of Soil Types by County Impacted by the FSC Project

County	Soil Map Unit	Mile Post Crossed by Project Centerline	Total Acreage (for each soil type by county)	Prime Farmland or Farmland of Unique Importance	Wind Erodibility Group	K Factor	Hydric	Droughty	Depth To Bedrock	Compaction Potential
		111.85, 112.00, 112.15 - 112.16, 112.32 - 112.40, 112.80, 112.80, 112.88 - 113.19, 113.21 - 113.28								
St. Lucie	Myakka fine sand	102.56 - 102.59, 102.60 - 102.67, 102.71 - 102.75	0.91	Farmland of unique importance	1	Low	No	No	> 60 in	High
St. Lucie	Nettles and Oldsmar sands	103.26 - 103.29, 107.06 - 107.31, 107.43 - 107.72	6.89	Farmland of unique importance	1	Low	No	No	40 in	High
St. Lucie	Pepper and EauGallie sands	107.81 - 107.88, 108.13 - 108.19, 111.00, 111.05 - 111.14, 111.21 - 111.37, 111.66 - 111.72, 114.19 - 114.32	7.09	Farmland of unique importance	1	Low	No	No	22 in	High
St. Lucie	Pompano sand	108.37 - 108.45	1.20	Not prime farmland	1	Low	Yes	No	> 60 in	High
St. Lucie	Pople sand	110.96 - 111.02, 113.19 - 113.21, 113.28 - 113.32	1.07	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	Riviera fine sand	106.90, 111.14 - 111.21, 113.90, 114.45 - 114.48	2.04	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	Samsula muck, depressional	102.53 - 102.55, 103.87 - 103.90, 105.47 - 105.50, 105.65 - 105.72, 105.89 - 105.98, 106.43 - 106.45, 109.99 - 110.01, 110.40, 110.70, 110.78 - 110.83	3.57	Not prime farmland	8	Low	Yes	No	> 60 in	High
St. Lucie	Wabasso fine sand, gravelly substratum	103.29 - 103.32, 103.30, 103.39 - 103.44, 103.65 - 103.71, 103.73 - 103.76, 113.32 - 113.44, 113.50 - 113.61, 113.72 - 113.89	6.60	Farmland of unique importance	1	Low	No	No	> 60 in	High

Table 7.2-1

Summary of Soil Types by County Impacted by the FSC Project

County	Soil Map Unit	Mile Post Crossed by Project Centerline	Total Acreage (for each soil type by county)	Prime Farmland or Farmland of Unique Importance	Wind Erodibility Group	K Factor	Hydric	Droughty	Depth To Bedrock	Compaction Potential
St. Lucie	Wabasso sand	106.85 - 107.04, 111.37 - 111.66, 111.72 - 111.81, 111.85 - 112.15, 112.16 - 112.32, 112.40 - 112.88, 113.60, 113.61 - 113.72, 114.32 - 114.45, 114.48 - 114.51	20.88	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	Waveland and Immokalee fine sands	103.90 - 104.30, 105.08 - 105.41, 109.50 - 109.78	12.30	Not prime farmland	1	Low	No	No	40 in	High
St. Lucie	Waveland-Lawnwood complex, depressional	104.20, 104.50, 104.89 - 104.94, 104.96 - 105.04	1.37	Not prime farmland	1	Low	Yes	No	40 in	High
St. Lucie	Winder loamy sand	111.02 - 111.05, 114.55 - 114.71, 114.79 - 114.89	4.37	Farmland of unique importance	2	Low	Yes	No	> 60 in	High
St. Lucie	Winder sand, shell substratum	113.44 - 113.50, 113.89 - 114.19	4.97	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
Martin	Basinger fine sand	117.83 - 118.10, 118.12 - 118.37, 118.37 - 118.42, 121.74 - 121.77, 121.87 - 121.87, 123.06 - 123.13	7.65	Not prime farmland	1	Low	Yes	No	> 60 in	High
Martin	Chobee loamy sand, depressional	116.39 - 116.43, 116.50 - 116.58, 117.70, 117.7	1.94	Farmland of unique importance	2	Low	Yes	No	> 60 in	High
Martin	Duette fine sand	118.93 - 118.98	0.62	Not prime farmland	1	Low	No	Yes	> 60 in	Moderate
Martin	Floridana fine sand, depressional	115.40, 115.46 - 115.50, 115.79 - 116.39, 116.66 - 117.31, 116.70, 124.86 - 125.05	20.49	Not prime farmland	1	Low	Yes	No	> 60 in	High
Martin	Gator and Tequesta mucks	123.59 - 123.65, 124.13 - 124.25	1.92	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Martin	Hallandale sand	115.25 - 115.29	0.21	Farmland of unique importance	1	Low	Yes	No	14 in	High

Table 7.2-1

Summary of Soil Types by County Impacted by the FSC Project

County	Soil Map Unit	Mile Post Crossed by Project Centerline	Total Acreage (for each soil type by county)	Prime Farmland or Farmland of Unique Importance	Wind Erodibility Group	K Factor	Hydric	Droughty	Depth To Bedrock	Compaction Potential
Martin	Holopaw fine sand	121.19 - 121.26, 123.93 - 123.99, 124.20, 125.72 - 125.80, 125.87 - 126.05, 126.59 - 126.78	6.89	Not prime farmland	1	Low	Yes	No	> 60 in	High
Martin	Hontoon muck	119.34 - 119.34	0.15	Not prime farmland	8	Low	Yes	No	> 60 in	High
Martin	Jupiter sand	115.29 - 115.46, 117.30, 117.31 - 117.83	10.15	Farmland of unique importance	1	Low	Yes	No	14 in	High
Martin	Lawnwood and Myakka fine sands	118.00, 122.73 - 122.98, 123.10, 123.20, 123.20, 123.65 - 123.73, 124.44 - 124.63, 125.53 - 125.72, 126.05 - 126.15	9.83	Farmland of unique importance	1	Low	Yes	No	25 in	High
Martin	Oldsmar fine sand	126.82	0.9	Farmland of unique importance	1	Low	No	No	> 60 in	High
Martin	Paola and St. Lucie sands, 0 to 8 percent slopes	118.46 - 118.93	7.04	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Martin	Pineda and Riviera fine sands	119.86 - 119.92, 120.71 - 120.77, 124.63 - 124.86, 125.05 - 125.11, 125.41 - 125.53	5.54	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
Martin	Pinellas fine sand	115.50 - 115.79, 116.43 - 116.50, 116.58 - 116.66, 123.23 - 123.30, 123.55 - 123.59	7.39	Farmland of unique importance	1	Low	No	No	> 60 in	High
Martin	Placid and Basinger fine sands, depressional	118.10 - 118.12, 118.10, 119.53 - 119.58, 119.90, 120.30, 120.34 - 120.71, 121.36 - 121.39, 121.55 - 121.67, 121.77 - 121.87, 122.98 - 123.06, 123.13 - 123.23, 123.46 - 123.55, 124.50	11.16	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Martin	Riviera fine sand, depressional	126.78 - 126.82	0.16	Not prime farmland	1	Low	Yes	No	> 60 in	High

FLORIDA SOUTHEAST CONNECTION

Table 7.2-1

Summary of Soil Types by County Impacted by the FSC Project

County	Soil Map Unit	Mile Post Crossed by Project Centerline	Total Acreage (for each soil type by county)	Prime Farmland or Farmland of Unique Importance	Wind Erodibility Group	K Factor	Hydric	Droughty	Depth To Bedrock	Compaction Potential
Martin	Samsula muck	119.10, 119.34 - 119.53, 122.30 - 122.41	3.07	Not prime farmland	8	Low	Yes	No	> 60 in	High
Martin	Sanibel muck	118.37 - 118.37, 118.40	0.16	Not prime farmland	8	Low	Yes	No	> 60 in	High
Martin	Udorthents, 2 to 35 percent slopes	115.70	0.03	Not prime farmland	1	Low	No	No	> 60 in	Low
Martin	Wabasso sand	123.30 - 123.46	1.49	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
Martin	Waveland and Immokalee fine sands	118.42 - 118.46, 118.98 - 119.34, 119.58 - 119.86, 119.92 - 120.34, 120.77 - 121.19, 121.26 - 121.36, 121.30, 121.39 - 121.55, 121.67 - 121.74, 121.87 - 122.30, 122.41 - 122.73, 123.73 - 123.93, 123.99 - 124.13, 124.25 - 124.44, 125.11 - 125.41, 125.80 - 125.87, 126.00, 126.15 - 126.59	49.03	Not prime farmland	1	Low	No	No	40 in	High

APPENDIX 7A

SOIL SERIES DESCRIPTIONS

Soils map unit descriptions and their associated map unit symbols (shown in parentheses) are listed below for the FSC Project.

Adamsville fine sand (31)

This is a somewhat poorly drained, nearly level to gently sloping, sandy soil overlying muck. It occurs on long, narrow natural dikes adjacent to and parallel to the shoreline of large lakes. This soil has a water table at a depth of about 20 to 40 inches for 2 to 6 months of most years. In the sandy layers, available water capacity is very low and permeability is rapid; in the muck layers, available water capacity is very high and permeability is moderate. Included with this soil in mapping are small areas of Pompano, Basinger, Placid, Riviera, and Gentry soils. Included soils make up no more than 15 percent of any mapped area.

Adamsville sand (1)

This is a somewhat poorly drained, nearly level soil on narrow ridges adjacent to and slightly higher than sloughs, marshes, and lakes, and on low knolls in the flatwoods. Slopes range from 0 to 2 percent. The water table is at a depth of 20 to 40 inches for 2 to 6 months annually. This soil has very low or low available water capacity and permeability is rapid throughout. Included with this soil in mapping are small areas of Narcoossee, Tavares, Parkwood, and Riviera soils and small kitchen middens. Included soils make up no more than 15 percent of any mapped area.

Archbold sand, 0 to 5 percent slopes (83)

This moderately well drained soil is on uplands and knolls on flatwoods. Slopes are smooth and concave. This Archbold soil has a seasonal has a seasonal high water table at a depth of 42 to 60 inches for 1 to 6 months in most years and at a depth of 60 to 80 inches for most of the rest of the year. The available water capacity is low and permeability is very rapid. Included with this soil in mapping are small areas of Duette and Sattelite soils. Included soils make up about 5 to 15 percent of any mapped area.

Arents, 0 to 5 percent slopes (4)

These highly variable soils have been reworked by earthmoving equipment during phosphate mining. Slopes are smooth to convex. The soil material is 2 to 20 feet thick. Small open pits filled with water are common in areas. The available water capacity, although quite variable, generally is low but increases with clay content. Permeability is variable but generally ranges from moderately rapid to slow. Drainage is variable depending on the amount of clay. In most areas the high water table is within 60 inches of the surface for 2 to 6 months during most years.

Arents 45 to 65 percent slopes (5)

This soil consists of soil materials dug from canals and piled alongside, and materials excavated during construction of highway overpasses and interchanges, and used for embankments. Most areas are long and narrow and have narrow ridgetops. In most places, the Arents soil is made up of intermixed sandy mineral materials and loamy and weakly cemented sandy materials that were subsoils. A variable mixture of lenses, streaks, and pockets occur within short distances. Depth of the material ranges from a few inches at the outer edges of areas to 10 feet or more. Included with this soil in mapping are small areas of sandy material that do not contain fragments of former subsoils and a few areas where the slope is less than 45 percent. Included soils make up less than 30 percent of any mapped area.

Arents – Water complex (11)

This map unit is a series of open pits that are filled with water and are paralleled by long steep mounds of soil material. It is a result of phosphate mining. Slopes are steep to very steep. The Arents part consists of piles of soil material or overburden that originally covered the phosphate-bearing strata. The Water part of this map unit is formed after the phosphate-bearing strata have been removed. This map unit is about 55 percent Arents and 45 percent water. The high water table of the Arents-Water complex is highly variable, but the Arents part generally does not have a water table within a depth of 80 inches. The available water capacity generally is low, but it varies throughout the map unit. Permeability generally is rapid, but it also varies. Included in mapping are pits that are not filled with water.

Astatula sand, 0 to 5 percent slopes (46)

This excessively drained, nearly level to gently sloping soil is on broad, high ridges. Slopes are smooth to convex. The water table in Astatula sand is below a depth of 72 inches annually. Available water capacity is very low, and permeability is very rapid. Included with this soil in mapping are small areas of Paola, Pendarvis, and Welaka Variant soils. Included soils make up less than 20 percent of any mapped area.

Astatula sand, 5 to 12 percent slopes (88)

This excessively drained soil occurs on ridges and hills on marine terraces. Slopes are convex. This soil has a seasonal high water table of more than 80 inches with no frequency of ponding or flooding. Available water capacity is very low and permeability is very high. Included with this soil in mapping are Candler, very deep loamy substratum, and Tavares soils, which make up about 10 percent of any mapped area.

Astatula sand, 12 to 20 percent slopes

This excessively drained soil occurs on ridges and hills on marine terraces. Slopes are convex. This soil has a seasonal high water table of more than 80 inches with no frequency of ponding or flooding. Available water capacity is very low and permeability is very high. Included with this soil in mapping are Candler, very deep loamy substratum, and Tavares soils, which make up about 10 percent of any mapped area.

Basinger and Placid soils, depressional (3)

This very poorly drained soil occurs on depressions on marine terraces. Slopes are concave and are 0 to 1 percent. This soil has a seasonal high water table at the soil surface with frequent ponding and no frequency of flooding. Available water capacity is low and permeability is high to very high. Included with this soil in mapping are St. Johns and Myakka soils. Included soils make up about 10 percent of any mapped area.

Basinger fine sand (87-Polk, 5-Osceola, 2-Okeechobee, 55-Martin)

This nearly level soil is poorly drained. It is in sloughs and poorly defined drainageways in the flatwoods. Slopes are less than 2 percent. The water table is at a depth of less than 10 inches for 2 to 6 months annually and at a depth of 10 to 30 inches for more than 6 months in most years. Permeability is very rapid throughout the profile. The available water capacity is very low. Included with this soil in mapping are areas of soils that are similar to this Basinger soil but have a dark colored surface layer 9 to 12 inches thick or that have loamy sand or loamy fine sand below a depth of 40 inches. Also included are areas of Lawnwood and Waveland soils and a few small areas of Placid and St. Johns Varient soils in depressions. Included soils make up about 15 percent of any mapped area.

Basinger fine sand, depressional (6)

This nearly level soil is poorly drained. It is in depressional areas in the flatwoods. Slopes are smooth to concave and range from 0 to 2 percent. This soil is ponded for 6 to 9 months or more in most years. Permeability is very rapid throughout the profile. The available water capacity is very low. Included with this soil in mapping are areas of soils that are similar to this Basinger soil but have a thin organic surface layer or have a black surface layer of more than 10 inches thick. Also included are small areas of Placid and Sanibel soils. Included soils make up about 25 percent of any mapped area.

Basinger mucky fine sand, depressional (36)

This very poorly drained soil is in wet depressions on flatwoods. Slopes are smooth to convex and are 0 to 2 percent. This Basinger soil is ponded for more than 6 months during most years. The available water capacity is low and permeability is rapid. Included with this soil are small areas of Placid, Pompano, St. Johns, and Samsula soils. Samsula soils are organic while Placid, Pompano, and St. Johns soils are similar to the Basinger soil. Also included are soils that are similar to the Basinger soil except they have a loamy sand or sandy loam subsoil. Included soils make up 15 to 20 percent of any mapped area.

Basinger sand (8)

This poorly drained, nearly level soil is in sloughs, on broad low flats, and along poorly defined drainageways in the flatwoods. Slopes are smooth to concave and are less than 1 percent in most places, but they range from 0 to 2 percent. The water table in Basinger sand is at a depth of less than 10 inches for 2 to 6 months annually and between depths of 10 to 30 inches for periods of more than 6 months in most years. Available water capacity is low, and permeability is rapid. However, internal drainage is slow because of a shallow water table. Included with this soil in mapping are small areas of Anclote, Myakka, and Pompano soil. Also included are areas that have a dark surface layer of 6 to 10 inches thick, areas that have a loamy substratum, and areas that are brown and yellow in the substratum. Included soils make up less than 30 percent of any mapped area.

Candler sand, 0 to 5 percent slopes (3)

This is an excessively drained, nearly level to gently sloping soil on uplands. The water table in this soil is at a depth of more than 72 inches, and no flood hazard exists. Available water capacity is very low in the upper 62 inches and low below that depth. Permeability is very rapid in the upper 62 inches and rapid below. Included with this soil in mapping are small areas of Pomello, Cassia, and Tavares soils and small areas of Candler soils having slopes of 5 to 12 percent. Also included are similar soils that have a loamy subsoil within 80 inches of the surface and other soils which lack lamellae within the same depth. Included soils make up no more than about 15 percent of any mapped area.

Candler sand, 5 to 8 percent slopes (4)

This is an excessively drained, sloping to strongly sloping soil on uplands. The water table is at a depth of more than 72 inches. Available water capacity is very low in the upper 59 inches and low below that depth. Permeability is very rapid in the upper 59 inches and rapid below. Included with this soil in mapping are small areas of Candler sand having slopes of 0 to 5 percent. Included soils make up no more than 10 percent of any mapped area.

Cassia fine sand (9)

This is a somewhat poorly drained, nearly level soil on low ridges in the flatwoods. Slopes range from 0 to 2 percent. The water table is at a depth of 15 to 40 inches for about 6 months in most years but drops to a depth of more than 40 inches during dry periods. Flooding is not a hazard.

Permeability is rapid in the surface and subsurface layers, moderate to moderately rapid in the subsoil, and rapid in the substratum. Available water capacity is very low in the surface and subsurface layers, medium in the subsoil, and low in the substratum. Included with this soil in mapping are small areas of Myakka and Pomello soils. Also included are small areas of similar soils that have a thin, very dark gray surface layer and a few other areas which have a loamy layer below a depth of 40 inches. Included soils make up less than 10 percent of any mapped area.

Chobee loamy sand, depressional (11-St. Lucie, 57-Martin)

This very poorly drained soil occurs on depressions on marine terraces. Slopes are concave and are 0 to 2 percent. This soil has a seasonal high water table at the soil surface with frequent ponding but no frequency of flooding. Available water capacity is moderate and permeability is moderately low to moderately high. Included with this soil in mapping are Hallandale, Kaliga, Floridana, and Winder, shell substratum, hydric soil. Included soils make up about 15 percent of any mapped area.

Delray loamy fine sand, depressional (10)

This very poorly drained soil occurs in depressions on marine terraces. Slopes are concave and are 0 to 2 percent. This Delray soil has a seasonal high water table at the surface, with frequent ponding but no frequency of flooding. The available water capacity is low and permeability is moderately high to high. Included with this soil in mapping are small areas of Floridana, Kaliga, and Holopaw soils. Included soils make up no more than 10 percent of any mapped area.

Duette fine sand (70-Polk, 78-Martin)

This moderately well drained soil is on low ridges on flatwoods. Slopes are smooth to concave and are 0 to 2 percent. The Duette soil has a seasonal high water table at a depth of 4 to 6 feet for 1 to 4 months during most years. The available water capacity is low and permeability is moderately rapid in the subsoil. Included with this soil are small areas of Archbold, Electra, and Pomello soils. Included soils make up about 10 to 20 percent of any mapped area.

Eaton mucky fine sand, depressional (6)

This very poorly drained soil is in wet depressions on flatwoods. Slopes are concave and are 0 to 2 percent. The Eaton soil is ponded for 6 months or more each year. The available water capacity is moderate. Permeability is slow in the subsoil. Included with this soil in mapping are small areas of Chobee, Felda, Floridana, Holopaw, Kaliga, and Winder soils. Included soils make up about 15 to 30 percent of any mapped area.

EauGallie fine sand (5-Polk, 11-Osceola)

This poorly drained soil is on flatwoods. Slopes are smooth to concave and are 0 to 2 percent. This EauGallie soil has a high water table within 12 inches of the surface for 1 to 4 months during most years. The available water capacity is low. Permeability is moderately slow in the lower part of the subsoil. Included with this soil in mapping are small areas of Felda, Malabar, Pomona, and Wabasso soils. Included soils make up about 15 to 25 percent of any mapped area.

Felda fine sand (42)

This poorly drained soil is in sloughs or low hammocks on flatwoods. Slopes are smooth to concave and are 0 to 2 percent. This Felda soil has a seasonal high water table within 12 inches of the surface for 2 to 4 months during most years. In slough areas the surface is covered by shallow, slowly moving water for 1 to 7 or more days during periods of heavy rainfall. The available water capacity is low. Permeability is moderately rapid. Included with this soil in mapping are small areas of Bradenton, Floridana, Malabar, and Oldsmar soils. Included soils make up about 10 to 30 percent of any mapped area.

Felda fine sand, depressional (86)

This very poorly drained soil is in wet depressions on flatwoods. Slopes are smooth to concave and are 0 to 2 percent. This Felda soil is ponded for more than 6 months during most years. The available water capacity is low. Permeability is moderately rapid in the subsoil. Included with this soil in mapping are small areas of Eaton, Floridana, and Holopaw soils. Included soils make up 15 to 20 percent of the map unit.

Felda fine sand, frequently flooded (82)

This very poorly drained soil is in wet depressions on flatwoods. Slopes are smooth to concave and are 0 to 2 percent. This Felda soil is ponded for more than 6 months during most years. The available water capacity is low. Permeability is moderately rapid in the subsoil. Included with this soil in mapping are small areas of Eaton, Floridana, and Holopaw soils. Included soils make up 15 to 20 percent of any mapped area.

Floridana fine sand, depressional (12-Osceola, 38-Martin)

This nearly level soil is very poorly drained. It is in wet sloughs and depressions. Slopes are smooth to concave and range from 0 to 2 percent. This soil is ponded for more than 6 months during most years. The water table is at a depth of less than 10 inches for much of the remainder of the year. Permeability is rapid in the surface and subsurface layers and slow to very slow in the subsoil. The available water capacity is medium in the surface layer and subsoil and low in the subsurface layer. Included with this soil in mapping are small areas of soils that are similar to this Floridana soil but are underlain by limestone at a depth of 30 to 50 inches, soils that have a very thick surface layer and soils that have a subsoil slightly deeper than 40 inches. Also included are small areas of Chobee, Riviera, Tequesta Variant, and Winder soils. Included soils make up less than 20 percent of any mapped area.

Floridana mucky fine sand, depressional (19)

This very poorly drained soil is in depressional areas mostly on flatwoods. Slopes are smooth to concave and are 0 to 2 percent. This Floridana soil is ponded for more than 6 months during most years. Areas on flood plains are subject to frequent flooding as well as to ponding. The available water capacity is moderate and permeability is very slow or slow. Included with this soil in mapping are small areas of Chobee, Felda, Holopaw, and Kaliga soils. Included soils make up 15 to 20 percent of any mapped area.

Floridana sand, depressional (13)

This very poorly drained soil occurs on depressions on marine terraces. Slopes are concave and are 0 to 2 percent. This soil has a seasonal high water table at the soil surface with frequent ponding and no frequency of flooding. Available water capacity is moderate and permeability is moderately low to moderately high. Included with this soil in mapping are Pineda, Riviera, and Winder, depressional soils. Included soils make up between 10 and 15 percent of any mapped area.

Floridana, Placid, and Okeelanta soils, frequently flooded (19)

This very poorly drained soil occurs on swamps on floodplains and marine terraces. Slopes are linear and concave, and are 0 to 1 percent. This soil has a seasonal high water table of about 0 to 6 inches, with frequent flooding and no frequency of ponding. Available water capacity is moderate and permeability is moderately low to moderately high. Included with this soil in mapping are Myakka, Riviera, Valkaria, Basinger, and St. Johns soils. Included soils make up about 15 percent of any mapped area.

Floridana, Riveria, and Placid soils, depressional (7)

This very poorly drained soil occurs on depressions on marine terraces. Slopes are concave and are 0 to 1 percent. This soil has a seasonal high water table at the soil surface with frequent ponding and no frequency of flooding. Available water capacity is moderate and permeability is moderately low to moderately high. Included with this soil in mapping are Okeelanta, depressional, and Manatee, depressional soils. Included soils make up about 10 percent of any mapped area.

Gator and Tequesta mucks (58)

This very poorly drained soil occurs on depressions on marine terraces. Slopes are concave and are 0 to 1 percent. The seasonal high water table is at the soil surface, with frequent ponding and no frequency of flooding. Available water capacity is high and permeability is moderately high to high. Included with this soil in mapping are Floridana and Chobee soils. Included soils make up about 10 percent of any mapped area.

Hallandale sand (15-St. Lucie, 42-Martin)

This nearly level, shallow soil is poorly drained. It is in broad, low flats and along the edges of drainageways. Slopes are smooth and are 1 percent or less. This soil is periodically covered with shallow water for a few days to a month in especially wet periods. In most years the water table is at a depth of less than 10 inches for about 4 months during the wet seasons and at a depth of 10 to 30 inches most of the rest of the year. Permeability is rapid in the sandy layer above the limestone. The limestone is impermeable, but has sufficient fractures and solution holes to permit water movement. The available water capacity is low or very low above the rock. Included with this soil in mapping are small areas of soils that are similar to this Hallandale soil but have rock at a depth of slightly less than 6 inches or slightly more than 20 inches and soil that have a thin layer of loamy or carbonatic material over the rock. Some small areas have a few scattered rock outcrops. Also included are small areas of Boca, Jupiter, Pineda, Riviera, and Wabasso soils. Included soils make up less than 20 percent of any mapped area.

Hilolo loamy sand (16)

This poorly drained, nearly level soil is on hammocks and along borders of depressional areas and sloughs. Slopes are smooth to convex and are less than 1 percent in most places, but they range from 0 to 2 percent. The water table in Hilolo loamy sand is at a depth of less than 10 inches for 2 to 4 months in most years. It is between depths of 10 to 40 inches during dry periods. Available water capacity is low to medium in the surface layer and substratum and medium in the subsoil. Permeability is moderate to moderately slow in the subsoil and slow to very slow in the substratum. Included with this soil in mapping are small areas of Winder Variant, Hallandale, Pineda, Pople, and Riviera soils. Also included are a few areas that have limestone boulders in the subsoil and areas that have a light colored subsurface layer. Included soils make up less than 35 percent of any mapped area.

Holopaw fine sand (14-Osceola, 66-Martin)

This is a poorly drained, nearly level soil in low, broad flags and poorly defined drainageways in the flatwoods. Slopes range from 0 to 2 percent. This soil has a water table within a depth of 10 inches for 2 to 6 months in most years. The water table is usually between depths of 10 and 40 inches during the rest of the year. It recedes, however, to a depth of more than 40 inches during very dry times. Available water capacity is very low in the surface and subsurface layers, medium in the subsoil, and low in the substratum. Permeability is rapid in the surface and subsurface layers, moderately rapid in the surface and subsurface layers, moderately rapid in the subsoil, and rapid in the substratum. Included with this soil in mapping are small areas of Riviera, Delray, Malabar, and Oldsmar soils. Also included are small areas of this Holopaw soil in depressions in which water stands for more than 6 months in most years. Included soils make up less than 15 percent of any mapped area.

Hontoon muck (35-Polk, 69-Martin)

This very poorly drained soil is in swamps and marshes. Slopes are dominantly less than 1 percent but range from 0 to 2 percent. The Hoonton soil has a seasonal high water table at or above the surface except during extended dry periods. Areas on flood plains are subject to frequent flooding as well as to ponding. The available water capacity is very high and permeability is rapid. Included with this soil are small areas of Kaliga, Placid, and Samsula soils, and some soils that are similar to the Hoonton soil except they have less decomposed organic matter. Included soils make up about 20 percent of any mapped area.

Immokalee fine sand (16-Osceola, 11-Okeechobee)

This is a poorly drained, nearly level soil in broad flatwoods areas. Slopes range from 0 to 2 percent. The water table is at a depth of less than 10 inches for 2 months in most years and within a depth of 10 to 40 inches for 8 months or more in most years. It is at a depth of more than 40 inches during dry periods. Permeability is rapid in the surface and subsurface layers, moderate to moderately rapid in the subsoil, and rapid below. Available water capacity is low in the surface layer, very low in the subsurface layer, medium in the subsoil, and very low in the substratum. Included with this soil in mapping are small areas of Ankona, Basinger, Myakka, Pomello, and Smyrna soils. Also included are small areas of similar soils in which the subsoil is below a depth of 50 inches or in which texture is coarse sand. Included soils make up no more than 15 percent of any mapped area.

Immokalee sand (21)

This poorly drained soil is in broad areas on flatwoods. Slopes are smooth to concave and are 0 to 2 percent. Typically, this soil has a very dark gray sand surface layer about 7 inches thick. The subsurface layer to a depth of about 39 inches is light gray sand that grades to white. The subsoil is black sand to a depth of about 58 inches. Below that is gray sand to a depth of about 66 inches, very dark gray sand to a depth of about 75 inches, and black sand to a depth of at least 80 inches. Included with this soil are small areas of Basinger, Myakka, and Smyrna soils. These soils are similar to the Immokalee soil. This Immokalee soil has a seasonal high water table within 12 inches of the surface for 1 to 4 months in most years. The available water capacity is low and permeability is moderate in the subsoil.

Jupiter sand (48)

This nearly level, shallow soil is poorly drained. It is in low flats and hammocks along the fringes of broad, marshy drainageways. Slopes are smooth to convex and are dominantly 1 percent or less. Some areas of this soil are covered with water for brief periods in the wet season. The water table is at a depth of less than 10 inches for 2 to 4 months in the wet season during most years. It is at a depth of 10 to 40 inches in drier seasons. Permeability is rapid in the sandy surface layer above the rock. The hard limestone is impermeable but has sufficient fractures and solution holes to permit water movement. Permeability is moderate to rapid in the substratum. The available water capacity is low to medium in the surface layer. Included with this soil in mapping are small areas of soils that are similar to this Jupiter soil but have a thin layer of loamy material over the limestone, soils that have less than 6 inches of sandy material over the limestone, and scattered spots of exposed limestone. Also included are small areas of

Canova Variant, Chobee, Floridana, Hallandale, and Hilolo soils. Included soils make up less than 25 percent of any mapped area.

Kaliga muck (32-Polk, 17-Osceola)

This is a very poorly drained, nearly level, organic soil in low flats, freshwater marshes, swamps, and depressions. Slopes are less than 1 percent. This soil has a water table at or above the surface except during extended dry periods. Available water capacity is very high in the organic layers and medium to high in the mineral layers. Permeability is moderate to very rapid in the organic layers, moderate in the upper 11 inches of the mineral layers, and slow to very slow in the lower 44 inches. Included with this soil in mapping are small areas of Delray, Hontoon, Nittaw, Placid, and Samsula soils. Also included are small areas of similar soils that contain less clay in the mineral layers. Included soils make up less than 15 percent of any mapped area.

Lawnwood and Myakka fine sands (2)

This poorly drained soil occurs on flatwoods on marine terraces. Slopes are linear and are 0 to 2 percent. This soil has a seasonal high water table of 6 to 18 inches, with no frequency of flooding or ponding. Available water capacity is low and permeability moderately high to high. Included with this soil in mapping are areas of Basinger, Placid, and Waveland soils. Included soils make up no more than 20 percent of mapped areas.

Lawnwood and Myakka sands (21)

This poorly drained soil occurs on flatwoods and marine terraces. Slopes are convex to linear and are 0 to 2 percent. This soil has a seasonal high water table of about 6 to 18 inches with no frequency of ponding or flooding. Available water capacity is low and permeability is moderately high to high. Included with this soil in mapping are Electra, Ankona, and Waveland soils. Included soils make up about 20 percent of any mapped area.

Lynne sand (9)

This poorly drained soil is in broad areas on flatwoods. Slopes are smooth to convex and are 0 to 2 percent. This Lynne soil has a seasonal high water table within 12 inches of the surface for 1 to 4 months during most years. The available water capacity is moderate. Permeability is moderately slow in the lower part of the subsoil. Included with this soil in mapping are small areas of Felda, Immokalee, Myakka, Pomona, and Wauchula soils. Included soils make up about 15 to 30 percent of any mapped area.

Malabar fine sand (19)

This is a nearly level, poorly drained soil in broad sloughs in the flatwoods. Slopes range from 0 to 2 percent. The water table is within a depth of 10 inches for 2 to 6 months during most years. Available water capacity is very low or low in the surface layer, subsurface layer, and upper subsoil; medium in the lower subsoil; and low to very low in the substratum. Permeability is rapid in the surface layer, in the subsurface layer, in the upper subsoil, and in the sandy layer between the upper and lower subsoils; slow to very slow in the lower subsoil; and rapid in the substratum. Included with this soil in mapping are small areas of Delray, Pineda, Riviera, Winder, and Pompano soils. Also included are soils that have a strongly acid surface layer and strongly acid loamy layers at a depth of 20 to 40 inches. Included soils make up no more than 15 percent of any mapped areas.

Malabar fine sand, depressional (20)

This is a poorly drained, nearly level soil in depressions in the flatwoods. Slopes are less than 1 percent. Six inches to 2 feet of water stand on the surface for 6 to 12 months during most years. During winter and spring, when very little rain falls, the water table is at a depth of 10 to 20 inches. Available water capacity is very low or low in the surface layer, in the subsurface layer, in the upper subsoil, and in the sandy layer between the upper and lower subsoils, and medium in the lower subsoil. Permeability is rapid in the surface layer, subsurface layer, and upper subsoil, and slow to very slow in the lower subsoil. Included with this soil in mapping are small areas of Basinger, Gentry, Holopaw, Lokosee, Riviera, Pompano, Placid, and Kaliga soils. Also included is a similar soil that lacks the lower subsoils and that is sandy to a depth of more than 80 inches. Some areas of this soil are in poorly defined drainageways through which water is channeled by artificial drainage. These areas are subject to flooding during periods of high rainfall. Included soils make up less than 20 percent of any mapped area.

Millhopper fine sand, 0 to 5 percent slopes (76)

This moderately well drained soil is on upland ridges and knolls on flatwoods. Slopes are smooth to concave. This Millhopper soil has a seasonal high water table at a depth of 40 to 60 inches for 1 to 4 months in most years. The available water capacity is low. Permeability is slow in the subsoil. Included with this soil in mapping are small areas of Apopka, Kendrick, Sparr, and Tavares soils. Included soils make up less than 10 percent of any mapped area.

Myakka fine sand (22-Osceola, 14-Okeechobee, 24-St. Lucie)

This is a poorly drained, nearly level soil in broad area in the flatwoods. Slopes range from 0 to 2 percent. The water table is at a depth of less than 10 inches for 1 to 4 months in most y ears and a depth of more than 40 inches during very dry seasons. Permeability is rapid in the surface and subsurface layers, moderate to moderately rapid in the subsoil, and rapid in the substratum. Available water capacity is very low above the subsoil, medium in the subsoil, and very low below the subsoil. Included with this soil in mapping are small areas of Smyrna, Immokalee, Ona, Cassia, EauGallie, and Pomello soils. Included soils make up no more than 20 percent of any mapped area.

Narcoossee fine sand (24)

This is a moderately well drained, nearly level soil on low ridges and knolls in the flatwoods. Slopes are convex and range from 0 to 2 percent. This soil has a water table at a depth of 24 to 40 inches for 4 to 6 months in most years. It recedes to a depth of more than 60 inches in extended dry periods. Available water capacity is very low in the surface and subsurface layers, low in the subsoil, and very low in the substratum. Permeability is rapid in the surface and subsurface layers, moderately rapid in the subsoil, and rapid in the substratum. Included with this soil in mapping are small areas of Adamsville, Myakka, Smyrna, and Tavares soils. Also included are small areas of similar soils that have a black, very dark gray, or very dark grayish brown layer at a depth of 70 to 80 inches. Included soils make up less than 15 percent of any mapped area.

Narcoossee sand (74)

This somewhat poorly drained soil is on low hammocks on ridges and flatwoods. Slopes are smooth to convex and are 0 to 2 percent. This Narcoossee soil has a seasonal high water table at a depth of 24 to 40 inches for 4 to 6 months during most years. The available water capacity is low. Permeability is moderately rapid in the subsoil. Included with this soil in mapping are small areas of Adamsville, Myakka, Pomello, and Tavares soils. Included soils make up about 5 to 10 percent of any mapped area.

Neilhurst sand, 1 to 5 percent slopes (12)

This excessively drained soil is on broad uplands and low knolls. It formed in homogenous sandy material from phosphate and silica mining operations. Slopes are mainly smooth to concave. This Neilhurst soil generally does not have a high water table within a depth of 80 inches; however, the water table can be within a depth of 30 inches for brief periods during the summer following heavy rainfall. The available water capacity is very low. Permeability is very rapid. Included with this soil in mapping are small areas of Arents and Haplaquents, clayey. Some areas may have intermittent ponds. Included soils make up about 5 to 10 percent of any mapped area.

Nettles and Oldsmar sands (25)

This poorly drained soil occurs on flatwoods on marine terraces. Slopes are linear and are 0 to 2 percent. This soil has a seasonal high water table at a depth of about 6 to 18 inches with no frequency of ponding or flooding. Available water capacity is very low and permeability is moderately low to moderately high. Included with this soil in mapping are Pineda, Pepper, Wabasso, Ankona, and Oldsmar soils. Included soils make up about 20 percent of any mapped area.

Nittaw sandy clay loam, frequently flooded (24)

This very poorly drained soil occurs on floodplains and marine terraces. Slopes are linear and are 0 to 2 percent. This soil has a seasonal high water table at about 0 to 12 inches with frequent flooding and no frequency of ponding. Available water capacity is high and permeability is moderately low to moderately high. Included with this soil in mapping are Chobee, Kaliga, and Floridana, depressional soils. Included soils make up about 15 percent of any mapped area.

Okeelanta muck (15)

This very poorly drained soil occurs on depressions on marine terraces. Slopes are concave and are 0 to 1 percent. This soil has a seasonal high water table at the soil surface with frequent ponding and no frequency of flooding. Available water capacity is very high and permeability is high to very high. Included with this soil in mapping are Placid, depressional, and Terra Ceia soils. Included soils make up about 10 percent of any mapped area.

Oldsmar fine sand (43-Polk, 26-Osceola)

This is a poorly drained, nearly level soil in the flatwoods. Slopes range from 0 to 2 percent. This soil has a water table within a depth of 10 inches for 1 to 3 months and within a depth of 10 to 40 inches for 6 months or more in most years. Available water capacity is very low in the surface and subsurface layers and medium in the subsoil. Permeability is rapid in the surface and subsurface layers, moderate to moderately rapid in the sandy part of the subsoil, and slow to very slow in the loamy part of the subsoil. Included with this soil in mapping are small areas of Ankona, EauGallie, Immokalee, Myakka, and Smyrna soils. Included soils make up no more than 20 percent of any mapped area.

Ona fine sand (23)

This is a poorly drained, nearly level soil in broad, flag areas in the flatwoods between swamps and marshes or in long, narrow bands bordering depressions and drainageways. Slopes are less than 2 percent. This soil has a water table within a depth of 10 inches for periods of 1 to 2 months and at a depth of 10 to 40 inches for periods of 4 to 6 months during most years. Available water capacity is medium in the surface layer and subsoil and very low to low in the substratum. Permeability is rapid in the surface layer, moderate in the subsoil, and rapid in the substratum. Included with this soil in mapping are small areas of Basinger, EauGallie, Myakka, Placid, and Smyrna soils. In some places, an indurated ironstone layer is at a depth of about 33 inches. Also included are similar soils that have a loamy sand layer below a depth of 60 inches. In some places, a second weakly cemented subsoil is generally below a depth of 35 inches. Included soils make up no more than 25 percent of any mapped area.

Orsino fine sand (17)

This moderately well drained soil occurs on ridges and knolls on marine terraces. Slopes are convex to linear and are 0 to 2 percent. This soil has a seasonal high water table of about 48 to 60 inches with no frequency of ponding or flooding. Available water capacity is very low and permeability is very high. Included with this soil in mapping are Immokalee and Pomello soils, which make up about 10 percent of any mapped area.

Paisley fine sand (44)

This poorly drained soil is on low, broad flatwoods. Slopes are smooth and are 0 to 2 percent. This Paisley soil has a seasonal high water table within a depth of 12 inches for 1 to 4 months during most years. The available water capacity is moderate. Permeability is slow in the subsoil. Included with this soil in mapping are small areas of Bradenton, Felda, and Wabasso soils. Included soils make up 15 to 20 percent of any mapped area.

Paola and St. Lucie sands, 0 to 8 percent slopes (6)

This excessively drained soil occurs on ridges and knolls on marine terraces. Slopes are convex. This soil has a seasonal high water table of more than 80 inches with no frequency of ponding or flooding. Available water capacity is very low and permeability is very high. Included with this soil in mapping are Jonathan, Hobe, Archbold, and Pomello soils. Included soils make up about 15 percent of any mapped area.

Paola sand, 0 to 5 percent slopes (28)

This is an excessively drained, nearly level to gently sloping soil on upland ridgetops and side slopes and on low ridges and knolls in the flatwoods. This soil has a water table below a depth of 72 inches. Available water capacity is very low, and permeability is very rapid throughout. Included with this soil in mapping are small areas of Pomello, Satellite, and St. Lucie soils. Included soils make up about 15 percent of any mapped area.

Pepper and EauGallie sands (31)

This poorly drained soil occurs on flatwoods on marine terraces. Slopes are convex to linear and are 0 to 2 percent. This soil has a seasonal high water table of about 6 to 18 inches with no frequency of ponding or flooding. Available water capacity is moderate and permeability is moderately low to high. Included with this soil in mapping are Pineda, Lawnwood, Tantile, Nettles, and Wabasso soils. Included soils make up about 10 percent of any mapped area.

Pineda and Riviera fine sands (21)

This poorly drained soil occurs on drainageways on marine terraces. Slopes are concave to linear and are 0 to 2 percent. This soil has a seasonal high water table of 0 to 12 inches with no frequency of flooding or ponding. Available water capacity is low and permeability is moderately low to moderately high. Included with this soil in mapping are Malabar, Boca, hydric, Pinellas, Wabasso, and Oldsmar soils. Included soils make up about 15 percent of any mapped area.

Pineda fine sand

This is a poorly drained, nearly level soil on broad, low flats and in narrow hammock areas bordering drainageways and depressions. Slopes are less than 2 percent. This soil has a water table within a depth of 10 inches for 1 to 6 months annually. Available water capacity is very low in the surface layer, subsurface layer, and sandy part of the subsoil. Permeability is rapid in the surface layer, subsurface layer, and sandy part of the subsoil, and slow to very slow in the loamy part of the subsoil. Included with this soil in mapping are small areas of Delray, Floridana, Malabar, and Riviera soils. Also included are a few small areas of a similar soil which has a thick, dark colored surface layer and some areas of soils that are subject to frequent flooding or that have water standing on the surface for 1 to 6 months in most years. Included soils make up less than 15 percent of any mapped area.

Pinellas fine sand (30)

This poorly drained soil occurs on flats on marine terraces. Slopes are convex to linear and are 0 to 2 percent. This soil has a seasonal high water table of about 6 to 18 inches with no frequency of ponding or flooding. Available water capacity is low and permeability is moderately high to high. Included with this soil in mapping are Hallandale, nonhydric, Boca, nonhydric, Pineda, and Riviera soils. Included soils make up about 20 percent of any mapped area.

Placid and Basinger fine sands, depressional (13)

This Placid soil is a very poorly drained, nearly level soil in low, wet depressions and swamps in flatwoods. Slopes are less than 1 percent. Water stands on the surface for 6 to 9 months or more in most years. Available water capacity is high in the surface layer and low in the underlying layers. Permeability is rapid throughout. This Basinger soil is poorly drained, and is in sloughs or poorly drained drainageways on flatwoods. Slopes are smooth to concave and are 0 to 2 percent. This Basinger soil has a seasonal high water table within 12 inches of the surface for 2 to 4 months in most years. During periods of heavy rainfall, the surface is covered by shallow, slowly moving water for 1 to 7 or more days. The available water capacity is low and permeability is rapid.

Placid and Myakka fine sands, depressional (25)

This map unit consists of very poorly drained Placid and Myakka soils in depressions mostly on flatwoods. Typically, about 60 percent of the unit is Placid soil and 30 percent Myakka soil, but the proportion varies in each area. Some areas only have one of these soils. In a typical area, Placid soil is in the lowest positions on the landscape and Myakka soil is in the higher positions adjacent to the flatwoods. Slopes are smooth to concave and are 0 to 2 percent. This Placid soil is ponded for at least 6 months during most years. The available water capacity is moderate and permeability is rapid. This Myakka soil has a seasonal high water table that is above the surface for about 6 months during most years. The available water capacity is low and permeability is moderate or moderately rapid in the subsoil. Included are areas of Basinger, Ona, Pomona, and St. Johns soils. Pomona soils have a loamy subsoil. Basinger, Ona, and St. Johns soils are similar to the Placid and Myakka soils. Included soils make up 5 to 10 percent of any mapped area.

Pomello fine sand (22)

This moderately well drained soil is on low, broad ridges and low knolls on flatwoods. Slopes are smooth to convex and are 0 to 2 percent. This Pomello soil has a seasonal high water table at a depth of 24 to 40 inches for 1 to 4 months in most years. The available water capacity is very low. Permeability is moderately rapid in the subsoil. Included with this soil in mapping are small areas of Archbold, Duette, Immokalee, and Satellite soils. Archbold and Satellite soils do not have a dark subsoil. Immokalee soils are poorly drained. Duette soils are similar to the Pomello soil. Included soils make up about 15 to 30 percent of any mapped area.

Pomello fine sand, 0 to 5 percent slopes (34-Osceola, 20-Okeechobee)

This is a moderately well drained, nearly level to gently sloping soil. It occurs in areas transitional between the high sand ridges and the flatwoods and on slight knolls and low ridges throughout the flatwoods. This soil has a water table at a depth of 24 to 40 inches for periods of about 1 to 4 months during normal wet seasons. During dry seasons, the water table is at a depth of about 40 to 60 inches. Permeability is very rapid in the surface and subsurface layers, moderately rapid in the subsoil, and rapid to a depth of 80 inches or more. Available water capacity is very low in the surface and subsurface layers, medium in the subsoil, and very low below. Included with this soil in mapping are small areas of Cassia, Immokalee, Myakka, Smyrna, and St. Lucie soils. Also included are small areas of soils that have a second weakly cemented layer at a depth of more than 62 inches. Included soils make up less than 20 percent of any mapped area.

Pomona fine sand (7)

This is a poorly drained, nearly level soil on broad, low ridges in the flatwoods. Slopes range from 0 to 2 percent. In most years under natural conditions, the water table is within a depth of 10 inches for 1 to 3 months and within a depth of 10 to 40 inches for 6 months or more. Available water capacity is low or very low in the surface and subsurface layers, medium in the subsoil, and low or very low in the sandy layers beneath the upper subsoil. Permeability is rapid in the surface and subsurface layers, moderate in the subsoil, and rapid in the sandy layers beneath the upper subsoil. Included with this soil in mapping are small areas of Ankona, Basinger, EauGallie, Myakka, Oldsmar, and Vero soils. Also included are similar soils in which the texture of the subsoil is loamy fine sand. Included soils make up less than 15 percent of any mapped area.

Pompano fine sand (30)

This poorly drained soil is on broad, low flatwoods. Slopes are smooth to concave and are 0 to 2 percent. This Pompano soil has a seasonal high water table within a depth of 12 inches for 2 to 4 months during most years. The available water capacity is very low and permeability is rapid. Included with this soil are small areas of Anclote, Basinger, and Placid soils. These soils are similar to Pompano soil. Included soils make up 15 to 20 percent of any mapped area.

Pompano fine sand, depressional (37)

This is a poorly drained, nearly level soil in depressions and drainage ways. Slopes are less than 1 percent. This soil is covered with standing water for 6 to 12 months during most years. Permeability is very rapid throughout, and available water capacity is very low. Included with this soil in mapping are small areas of Basinger, Malabar, Placid, and Riviera soils. Included soils generally make up less than 10 percent of any mapped area.

Pompano sand (34)

This poorly drained soil occurs on drainageways and flats on marine terraces. Slopes are linear to concave and are 0 to 2 percent. This soil has a seasonal high water table of about 0 to 12 inches with no frequency of ponding or flooding. Available water capacity is very low and permeability is very high. Included with this soil in mapping are Satellite, Myakka, Waveland, and Samsula soils. Included soils make up about 10 to 15 percent of any mapped area.

Pople sand (36)

This poorly drained soils occurs on drainageways and flats on marine terraces. Slopes are linear to concave and are 0 to 2 percent. This soil has a seasonal high water table at a depth of 0 to 12 inches, with no frequency of flooding or ponding. Available water capacity is low and permeability is moderately low to moderately high. Included with this soil in mapping are Hilolo, Pineda, Hallandale, Winder, hydric, Riviera, and Winder, shell substratum, hydric soils. Included soils make up about 15 percent of any mapped area.

Riviera fine sand (38)

This is a poorly drained, nearly level soil on broad, low flats. Slopes are less than 2 percent. This soil has a water table within a depth of 10 inches for 2 to 4 months in most years and at a depth of 10 to 30 inches most of the rest of the year. Available water capacity is low in the surface and subsurface layers, medium to high in the subsoil, and low in the substratum. Permeability is rapid in the surface and subsurface layers, slow to very slow in the subsoil, and moderate to moderately rapid in the substratum. Included with this soil in mapping are small areas of Gentry, Holopaw, Malabar, Pineda, Vero, and Winder soils. Included soils make up less than 15 percent of any mapped area.

Riviera fine sand, depressional (39-Osceola, 49-Martin)

This is a poorly drained, nearly level soil in depressions and on the edges of large lakes that have fluctuating water levels. Slopes are less than 1 percent. Water stands on the surface for 6 months or more in most years. The water table commonly recedes to several inches below the surface during extended dry periods. Available water capacity is low in the surface and subsurface layers, medium to high in the subsoil, and low in the substratum. Permeability is rapid in the surface and subsurface layers, slow to very slow in the subsoil, and moderate to moderately rapid in the substratum. Included with this soil in mapping are small areas of Floridana, Gentry, Vero, and Winder soils. Included soils make up less than 15 percent of mapped areas.

Samsula muck (13-Polk, 40-Osceola, 73-Martin)

This very poorly drained, organic soil is in swamps and marshes. Slopes are smooth and are less than 2 percent. The Samsula soil has a seasonal high water table at or above the surface except during extended dry periods. Areas on flood plains are subject to frequent flooding as well as to ponding. The available water capacity is high and permeability is rapid. Included with this soil are Hontoon and Placid soils. Included soils make up about 10 to 20 percent of any mapped area.

Samsula muck, depressional (40)

This very poorly drained soil occurs on depressions on marine terraces. Slopes are concave and are 0 to 2 percent. This soil has a seasonal high water table at the soil surface with frequent ponding, but no frequency of flooding. The available water capacity and permeability are both high. Included with this soil in mapping are Hontoon soils, which make up about 10 percent of any mapped area.

Sanibel muck (40)

This very poorly drained soil occurs on depressions on marine terraces. Slopes are concave and are 0 to 1 percent. This soil has a seasonal high water table at the soil surface, with frequent ponding but no frequency of flooding. Available water capacity is moderate and permeability is high to very high. Included with this soil in mapping are Basinger, Okeelanta, Placid, and Samsula soils. Included soils make up about 15 percent of any mapped area.

Satellite sand (41-Osceola, 77-Polk)

This somewhat poorly drained soil is on low knolls and ridges on flatwoods. Slopes are smooth to convex and are 0 to 2 percent. This Satellite soil has a seasonal high water table within a depth of 12 to 40 inches for 2 to 6 months in most years. The available water capacity is very low and permeability is very rapid. Included with this soil are small areas of Archbold, Immokalee, Pomello, and Pompano soils. Included soils make up about 5 to 10 percent of any mapped area.

Smyrna and Myakka fine sands (17)

This unit consists of poorly drained soils in broad areas on flatwoods. It is about 55 percent Smyrna soil and 40 percent Myakka soil, but the proportion varies in each area. Slopes are smooth to concave and are 0 to 2 percent. The Smyrna and Myakka soils have a seasonal high water table within 12 inches of the surface for 1 to 4 months in most years. The available water capacity is low and permeability is moderate or moderately rapid in the subsoil.

Smyrna fine sand (42)

This is a nearly level, poorly drained soil in broad flat areas in the flatwoods. Slopes range from 0 to 2 percent. The water table is at a depth of less than 10 inches for 1 to 4 months and between depths of 10 and 40 inches for more than 6 months in most years. In rainy seasons the water table rises above the surface briefly. Permeability is rapid in the surface and subsurface layers, moderate to moderately rapid in the upper subsoil, rapid in the next layer, and moderate to moderately rapid in the lower subsoil. Available water capacity is very low to low in the surface and subsurface layers, medium in the upper subsoil, very low to low in the next layer, and medium in the lower subsoil. Included with this soil in mapping are small areas of Basinger, EauGallie, Myakka, Immokalee, and Placid soils. Included soils make up no more than 20 percent of any mapped area.

St. Augustine sand (81)

This somewhat poorly drained soil is on ridges or mounds along the Kissimmee River. It was formed by dredging the river. Slopes are generally 0 to 2 percent; they are steeper on the edge of the ridges of mounds. This St. Augustine soil has a seasonal high water table at a depth of 20 to 30 inches for 2 to 6 months in most years and at a depth of at least 50 inches during long, dry periods. The available water capacity is low. Permeability is rapid. Included with this soil in mapping are small areas of Kaliga and Samsula soils in which the sand extends to a depth of less than 20 inches and shell fragments cover the surface. Also included are areas of other St. Augustine soils in which the sand is underlain by clay to a depth of 40 to 80 inches. Included soils make up less than 15 percent of any mapped area.

St. Johns fine sand (23)

This poorly drained soil occurs on flats and depressions on marine terraces. Slops are linear to concave and are 0 to 2 percent. This soil has a seasonal high water table of about 0 to 6 inches with no frequency of ponding or flooding. Available water capacity is high and permeability is moderately high to high. Included with this soil in mapping are Immokalee, Basinger, and Myakka soils. Included soils make up about 15 percent of any mapped area.

St. Johns sand (41)

This poorly drained soil is on low, broad flats and in sloughs on flatwoods. It is also on toe slopes and in the ridge areas. Slopes are smooth to concave and are 0 to 2 percent. This St. Johns soil has a seasonal high water table within 12 inches of the surface for 3 to 6 months during most years. The available water capacity is moderate. Permeability is moderate or moderately slow in the subsoil. Included with this soil in mapping are small areas of Basinger, Ona, Placid, and Samsula soils. Also included are areas of soils that have a mucky fine sand surface layer. Included soils make up about 20 to 40 percent of the any mapped area.

St. Lucie fine sand, 0 to 5 percent slopes (29-Polk, 43-Osceola)

This is an excessively drained, nearly level to gently sloping soil on narrow, discontinuous ridges in the sandy uplands and flatwoods. This soil has a seasonal high water table at a depth of 72 to 120 inches. Permeability is very rapid throughout, and available water capacity is very low. Included with this soil in mapping are small areas of Cassia, Immokalee, Myakka, Pomello, and Smyrna soils. A few areas of soils that have a thicker surface layer are included. Also included are small areas of soils that are similar to St. Lucie soils except that they have yellowish brown fine sand at a depth of 70 to 80 inches. Included soil makes up less than 20 percent of any mapped area.

Tavares fine sand, 0 to 5 percent slopes (15)

This moderately well drained soil is on broad uplands and knolls on flatwoods. The Tavares soil has a seasonal high water table at a depth of 40 to 80 inches for several months in most years. The available water capacity is very low and permeability is rapid or very rapid. Included with this soil are small areas of Adamsville, Candler, Millhopper, Narcoossee, and Zolfo soils. Also included are small areas of soils in which organic-stained layers occur within a depth of 80 inches. Included soils make up about 10 to 20 percent of any mapped area.

Udorthents, 2 to 35 percent slopes (12)

This map unit consists of excavated areas, locally called "borrow pits." The excavated soil and geologic material have been removed for use as fill or as base for roads. Included in mapping are areas of spoil around the edge of the pits. The spoil is mostly sand or clay.

Wabasso fine sand (62)

This poorly drained soil occurs on flats on marine terraces. Slopes are convex to linear and are 0 to 2 percent. This soil has a seasonal high water table at a depth of 6 to 18 inches, with no frequency of flooding or ponding. The available water capacity is moderate and permeability is moderately low to moderately high. Included with this soil in mapping are small areas of Wauchula, Riviera, Myakka, and EauGallie soils. Included soils make up no more than 15 percent of any mapped area.

Wabasso fine sand, gravelly substratum (49)

This poorly drained soil occurs on flatwoods on marine terraces. Slopes are convex to linear and are 0 to 2 percent. This soil has a seasonal high water table at a depth of about 6 to 18 inches with no frequency of flooding or ponding. The available water capacity is low and permeability is moderately low to moderately high. Included with this soil in mapping are Pople, Hilolo, Hallandale, and Wabasso soils. Included soils make up about 15 percent of any mapped area.

Wabasso sand (48-St. Lucie, 17-Martin)

This nearly level soil is poorly drained. It is in broad, openland areas in the flatwoods. Slopes are smooth and range from 0 to 2 percent. The water table is at a depth of 10 to 40 inches for more than 6 months in most years and at a depth of less than 10 inches for 1 to 2 months. The available water capacity is very low in the surface and subsurface layers, medium in the subsoil, and low in the substratum. Permeability is rapid in the surface and subsurface layers, moderate in the sandy part of the subsoil, and slow or very slow in the loamy part. Included with this soil in mapping are small areas of Boca, Oldsmar, Pineda, and Riviera soils. Also included are areas of soils that are similar to this Wabasso soil but have a thicker, dark colored surface layer, areas of soils that have a thicker sandy subsoil, and few to common, small, wet depressions that are less than 3 acres in size. Included soils make up less than 20 percent of any mapped area.

Wauchula fine sand (40)

This is a poorly drained, nearly level soil in broad areas in the flatwoods. Slopes range from 0 to 2 percent. The water table is at a depth of less than 10 inches for 1 to 4 months in most years. It is at a depth of 10 to 40 inches for about 6 months or more in most years. Permeability is rapid in the surface and subsurface layers and in the layer between the upper and lower subsoils, and moderate to moderately rapid in the subsoil. Available water capacity is low to medium in the surface layer, very low in the subsurface layer, and high in the subsoil. Included with this soil in mapping are small areas of Vero, EauGallie, Myakka, Smyrna, and Ona soils. Included soils make up no more than 15 percent of any mapped area.

Waveland and Immokalee fine sands (50-St. Lucie, 4-Martin)

This poorly drained soil occurs on flatwoods on marine terraces. Slopes are convex to linear and are 0 to 2 percent. The seasonal high water table is at a depth of about 6 to 18 inches, with no frequency of ponding or flooding. Available water capacity is low and permeability is moderately high to high. Included in this soil in mapping are Jonathan, Lawnwood, Salerno, and Electra soils. Included soils make up about 10 to 15 percent of any mapped area.

Waveland-Lawnwood complex, depressional (51)

This very poorly drained soil occurs on depressions on marine terraces. Slopes are concave and are 0 to 2 percent. The seasonal high water table is at the soil surface with frequent ponding, and no frequency of flooding. Available water capacity is very low and permeability is moderately low to moderately high. Included in this soil in mapping are Wabasso soils, which makes up about 5 percent of any mapped area.

Winder loamy sand (55)

This poorly drained soil occurs on flats on marine terraces. Slopes are convex, concave, and linear, and are 0 to 2 percent. This soil has a seasonal high water table of about 12 to 18 inches with no frequency of flooding or ponding. Available water capacity is low and permeability is moderately low to moderately high. Included with this soil in mapping are Pineda, Riviera, Hallandale, Floridana, Wabasso, gravelly substratum, Wabasso, and Winder, shell substratum, hydric soils. Included soils make up about 15 to 20 percent of any mapped area.

Winder sand, shell substratum (56)

This poorly drained soil occurs on flats on marine terraces. Slopes are convex, concave, and linear, and are 0 to 2 percent. This soil has a seasonal high water table of about 12 to 18 inches with no frequency of flooding or ponding. Available water capacity is moderate and permeability is moderately low to moderately high. Included with this soil in mapping are Hallandale, Hilolo, Winder, hydric, Pople, Pineda, Wabasso, and gravelly substratum soils. Included soils make up no more than 15 percent of any mapped area.

APPENDIX 7B

FLORIDA SOUTHEAST CONNECTION

Table 7.2-2

Soil Types by County Impacted by the FSC Pipeline and Aboveground Facilities

County	Map Unit Symbol	Map Unit Name	MP Start a/	MP END a/	MP Length (Miles) a/	Prime Farmland or Farmland of Unique Importance c/	WEG d/	K Factor e/	Hydric f/	Droughty g/	Depth to Bedrock h/, i/	Compaction Potential j/
Osceola	16	Immokalee fine sand	0.00	0.40	0.40	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	22	Myakka fine sand	0.40	0.46	0.06	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	12	Floridana fine sand, depressional	0.46	0.51	0.05	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Osceola	41	Satellite sand	0.51	0.57	0.06	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	77	Satellite sand	0.57	0.61	0.04	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	25	Placid and Myakka fine sands, depressional	0.61	0.67	0.06	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	77	Satellite sand	0.67	0.80	0.13	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	21	Immokalee sand	0.80	0.87	0.07	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
Polk	25	Placid and Myakka fine sands, depressional	0.87	0.95	0.08	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	30	Pompano fine sand	0.95	1.01	0.06	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	77	Satellite sand	1.01	1.08	0.07	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	30	Pompano fine sand	1.08	1.34	0.26	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	77	Satellite sand	1.34	1.36	0.02	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	13	Samsula muck	1.36	1.42	0.06	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Polk	15	Tavares fine sand, 0 to 5 percent slopes	1.40	1.40	b/	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	77	Satellite sand	1.42	1.51	0.09	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	25	Placid and Myakka fine sands, depressional	1.51	1.57	0.06	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	30	Pompano fine sand	1.57	1.60	0.03	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	15	Tavares fine sand, 0 to 5 percent slopes	1.60	1.65	0.05	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	70	Duette fine sand	1.65	1.76	0.11	Not prime farmland	1	Low	No	Yes	> 60 in	Moderate
Polk	30	Pompano fine sand	1.76	1.78	0.02	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	35	Hontoon muck	1.78	1.93	0.15	Not prime farmland	8	Low	Yes	No	> 60 in	High
Polk	21	Immokalee sand	1.93	1.95	0.02	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
Polk	35	Hontoon muck	1.95	2.01	0.06	Not prime farmland	8	Low	Yes	No	> 60 in	High
Polk	21	Immokalee sand	2.01	2.02	0.01	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
Polk	35	Hontoon muck	2.02	2.03	0.01	Not prime farmland	8	Low	Yes	No	> 60 in	High
Polk	13	Samsula muck	2.03	2.04	0.01	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Polk	35	Hontoon muck	2.04	2.21	0.17	Not prime farmland	8	Low	Yes	No	> 60 in	High
Polk	46	Astatula sand, 0 to 5 percent slopes	2.21	2.33	0.12	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	77	Satellite sand	2.30	2.30	b/	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	77	Satellite sand	2.33	2.38	0.05	Not prime farmland	1	Low	No	No	> 60 in	Moderate

Notes:
a/ Approximate MP along the proposed pipeline rounded to the nearest 1/100th.
b/ These soil polygons within the pipeline construction area do not cross the pipeline centerline. The closest MP to the polygon is identified as the Start and End MP.
c/ There is no Prime farmland located within the FSC Project. Farmland of Unique Importance includes soils designated as such by the NRCS (SSURGO reference column "farmlndcl").
d/ WEGs were obtained from the NRCS Soil Data Mart. WEGs range from 1 to 8, with 1 being the highest potential for wind erosion, and 8 the lowest. Highly wind erodible soils include those in wind erodibility groups 1 or 2 (SSURGO reference column "weg").
e/ Water erosion potential was determined by averaging the K factor values of horizons of each soil type. Based on the average K factor, each soil type was grouped into a water erosion class of "Low", "Moderate", and "High". Highly water erodible soils include those with water classified as highly erodible land.
f/ "Urban Land" and "Udorthents" map units do not have a NRCS designated hydric soil status. These map units were considered to be non-hydric soils. Map units comprised of complexes of hydric and non-hydric soil types were considered to be partially hydric.
g/ Droughty soils include those that meet droughty soils criteria (i.e., soils with sandy loam or coarser texture and are moderately to excessively well drained) (SSURGO reference column "texcl" and "drainagecl").
h/ No Stony/Rocky soils were identified along the FSC Project.
i/ Depth to bedrock is not defined by the NRCS for the "Pavement and Buildings" map unit. In these cases, a depth to bedrock of >60" was assigned, which is consistent with NRCS designations for other natural and fill soils in the Project area. Shallow bedrock include those that have lithic or paralithic bedrock within 60 inches or less of the soil surface (SSURGO and STATSGO reference column "rescind" and "resdept_r").
j/ Compaction potential was determined by drainage class. High compaction potential includes very poorly drained and poorly drained soils, moderate compaction potential includes somewhat poorly drained to moderately well drained soils, and low compaction potential includes well drained soils.

FLORIDA SOUTHEAST CONNECTION

Table 7.2-2

Soil Types by County Impacted by the FSC Pipeline and Aboveground Facilities

County	Map Unit Symbol	Map Unit Name	MP Start a/	MP END a/	MP Length (Miles) a/	Prime Farmland or Farmland of Unique Importance c/	WEG d/	K Factor e/	Hydric f/	Droughty g/	Depth to Bedrock h/, i/	Compaction Potential j/
Polk	13	Samsula muck	2.38	2.39	0.01	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Polk	77	Satellite sand	2.39	2.45	0.06	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	88	Astatula sand, 5 to 12 percent slopes	2.45	2.49	0.04	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	77	Satellite sand	2.49	2.51	0.02	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	13	Samsula muck	2.51	2.68	0.17	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Polk	30	Pompano fine sand	2.68	2.75	0.07	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	13	Samsula muck	2.75	2.81	0.06	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Polk	30	Pompano fine sand	2.81	3.01	0.20	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	88	Astatula sand, 5 to 12 percent slopes	3.01	3.14	0.13	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	21	Immokalee sand	3.10	3.10	b/	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
Polk	15	Tavares fine sand, 0 to 5 percent slopes	3.14	3.23	0.09	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	46	Astatula sand, 0 to 5 percent slopes	3.23	3.35	0.12	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	21	Immokalee sand	3.35	3.40	0.05	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
Polk	13	Samsula muck	3.40	3.49	0.09	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Polk	36	Basinger mucky fine sand, depressional	3.49	3.61	0.12	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	46	Astatula sand, 0 to 5 percent slopes	3.61	3.69	0.08	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	15	Tavares fine sand, 0 to 5 percent slopes	3.69	3.76	0.07	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	36	Basinger mucky fine sand, depressional	3.76	3.91	0.15	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	21	Immokalee sand	3.91	3.95	0.04	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
Polk	36	Basinger mucky fine sand, depressional	3.95	3.99	0.04	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	13	Samsula muck	3.99	4.04	0.05	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Polk	36	Basinger mucky fine sand, depressional	4.04	4.05	0.01	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	15	Tavares fine sand, 0 to 5 percent slopes	4.05	4.11	0.06	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	17	Smyrna and Myakka fine sands	4.10	4.10	b/	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	36	Basinger mucky fine sand, depressional	4.11	4.21	0.10	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	15	Tavares fine sand, 0 to 5 percent slopes	4.20	4.20	b/	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	25	Placid and Myakka fine sands, depressional	4.21	4.30	0.09	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	17	Smyrna and Myakka fine sands	4.30	4.30	b/	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	15	Tavares fine sand, 0 to 5 percent slopes	4.30	4.35	0.05	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	46	Astatula sand, 0 to 5 percent slopes	4.35	4.38	0.03	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	15	Tavares fine sand, 0 to 5 percent slopes	4.38	4.41	0.03	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate

Notes:
a/ Approximate MP along the proposed pipeline rounded to the nearest 1/100th.
b/ These soil polygons within the pipeline construction area do not cross the pipeline centerline. The closest MP to the polygon is identified as the Start and End MP.
c/ There is no Prime farmland located within the FSC Project. Farmland of Unique Importance includes soils designated as such by the NRCS (SSURGO reference column "farmlndcl").
d/ WEGs were obtained from the NRCS Soil Data Mart. WEGs range from 1 to 8, with 1 being the highest potential for wind erosion, and 8 the lowest. Highly wind erodible soils include those in wind erodibility groups 1 or 2 (SSURGO reference column "weg").
e/ Water erosion potential was determined by averaging the K factor values of horizons of each soil type. Based on the average K factor, each soil type was grouped into a water erosion class of "Low", "Moderate", and "High". Highly water erodible soils include those with water classified as highly erodible land.
f/ "Urban Land" and "Udorthents" map units do not have a NRCS designated hydric soil status. These map units were considered to be non-hydric soils. Map units comprised of complexes of hydric and non-hydric soil types were considered to be partially hydric.
g/ Droughty soils include those that meet droughty soils criteria (i.e., soils with sandy loam or coarser texture and are moderately to excessively well drained) (SSURGO reference column "texcl" and "drainagecl").
h/ No Stony/Rocky soils were identified along the FSC Project.
i/ Depth to bedrock is not defined by the NRCS for the "Pavement and Buildings" map unit. In these cases, a depth to bedrock of >60" was assigned, which is consistent with NRCS designations for other natural and fill soils in the Project area. Shallow bedrock include those that have lithic or paralithic bedrock within 60 inches or less of the soil surface (SSURGO and STATSGO reference column "rescind" and "resdept_r").
j/ Compaction potential was determined by drainage class. High compaction potential includes very poorly drained and poorly drained soils, moderate compaction potential includes somewhat poorly drained to moderately well drained soils, and low compaction potential includes well drained soils.

FLORIDA SOUTHEAST CONNECTION

Table 7.2-2

Soil Types by County Impacted by the FSC Pipeline and Aboveground Facilities

County	Map Unit Symbol	Map Unit Name	MP Start a/	MP END a/	MP Length (Miles) a/	Prime Farmland or Farmland of Unique Importance c/	WEG d/	K Factor e/	Hydric f/	Droughty g/	Depth to Bedrock h/, i/	Compaction Potential j/
Polk	17	Smyrna and Myakka fine sands	4.41	4.46	0.05	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	15	Tavares fine sand, 0 to 5 percent slopes	4.46	4.50	0.04	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	25	Placid and Myakka fine sands, depressional	4.50	4.56	0.06	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	46	Astatula sand, 0 to 5 percent slopes	4.56	4.63	0.07	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	13	Samsula muck	4.63	4.75	0.12	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Polk	46	Astatula sand, 0 to 5 percent slopes	4.75	4.93	0.18	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	25	Placid and Myakka fine sands, depressional	4.80	4.80	b/	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	21	Immokalee sand	4.93	4.95	0.02	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
Polk	25	Placid and Myakka fine sands, depressional	4.95	4.99	0.04	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	21	Immokalee sand	4.99	5.02	0.03	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
Polk	46	Astatula sand, 0 to 5 percent slopes	5.02	5.08	0.06	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	21	Immokalee sand	5.08	5.12	0.04	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
Polk	46	Astatula sand, 0 to 5 percent slopes	5.12	5.13	0.01	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	88	Astatula sand, 5 to 12 percent slopes	5.13	5.20	0.07	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	21	Immokalee sand	5.20	5.22	0.02	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
Polk	88	Astatula sand, 5 to 12 percent slopes	5.22	5.25	0.03	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	46	Astatula sand, 0 to 5 percent slopes	5.25	5.34	0.09	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	88	Astatula sand, 5 to 12 percent slopes	5.34	5.42	0.08	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	46	Astatula sand, 0 to 5 percent slopes	5.40	5.40	b/	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	77	Satellite sand	5.42	5.42	b/	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	25	Placid and Myakka fine sands, depressional	5.42	5.48	0.06	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	36	Basinger mucky fine sand, depressional	5.48	5.52	0.04	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	25	Placid and Myakka fine sands, depressional	5.52	5.71	0.19	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	77	Satellite sand	5.71	5.72	0.01	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	15	Tavares fine sand, 0 to 5 percent slopes	5.72	5.78	0.06	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	77	Satellite sand	5.78	5.80	0.02	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	36	Basinger mucky fine sand, depressional	5.80	5.86	0.06	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	77	Satellite sand	5.86	5.90	0.04	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	15	Tavares fine sand, 0 to 5 percent slopes	5.90	6.05	0.15	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	77	Satellite sand	6.05	6.11	0.06	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	25	Placid and Myakka fine sands, depressional	6.10	6.10	b/	Not prime farmland	1	Low	Yes	No	> 60 in	High

Notes:
a/ Approximate MP along the proposed pipeline rounded to the nearest 1/100th.
b/ These soil polygons within the pipeline construction area do not cross the pipeline centerline. The closest MP to the polygon is identified as the Start and End MP.
c/ There is no Prime farmland located within the FSC Project. Farmland of Unique Importance includes soils designated as such by the NRCS (SSURGO reference column "farmlndcl").
d/ WEGs were obtained from the NRCS Soil Data Mart. WEGs range from 1 to 8, with 1 being the highest potential for wind erosion, and 8 the lowest. Highly wind erodible soils include those in wind erodibility groups 1 or 2 (SSURGO reference column "weg").
e/ Water erosion potential was determined by averaging the K factor values of horizons of each soil type. Based on the average K factor, each soil type was grouped into a water erosion class of "Low", "Moderate", and "High". Highly water erodibile soils include those with water classified as highly erodible land.
f/ "Urban Land" and "Udorthents" map units do not have a NRCS designated hydric soil status. These map units were considered to be non-hydric soils. Map units comprised of complexes of hydric and non-hydric soil types were considered to be partially hydric.
g/ Droughty soils include those that meet droughty soils criteria (i.e., soils with sandy loam or coarser texture and are moderately to excessively well drained) (SSURGO reference column "texcl" and "drainagecl").
h/ No Stony/Rocky soils were identified along the FSC Project.
i/ Depth to bedrock is not defined by the NRCS for the "Pavement and Buildings" map unit. In these cases, a depth to bedrock of >60" was assigned, which is consistent with NRCS designations for other natural and fill soils in the Project area. Shallow bedrock include those that have lithic or paralithic bedrock within 60 inches or less of the soil surface (SSURGO and STATSGO reference column "rescind" and "resdept_r").
j/ Compaction potential was determined by drainage class. High compaction potential includes very poorly drained and poorly drained soils, moderate compaction potential includes somewhat poorly drained to moderately well drained soils, and low compaction potential includes well drained soils.

FLORIDA SOUTHEAST CONNECTION

Table 7.2-2

Soil Types by County Impacted by the FSC Pipeline and Aboveground Facilities

County	Map Unit Symbol	Map Unit Name	MP Start a/	MP END a/	MP Length (Miles) a/	Prime Farmland or Farmland of Unique Importance c/	WEG d/	K Factor e/	Hydric f/	Droughty g/	Depth to Bedrock h/, i/	Compaction Potential j/
Polk	15	Tavares fine sand, 0 to 5 percent slopes	6.11	6.13	0.02	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	77	Satellite sand	6.13	6.20	0.07	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	46	Astatula sand, 0 to 5 percent slopes	6.20	6.29	0.09	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	15	Tavares fine sand, 0 to 5 percent slopes	6.29	6.32	0.03	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	30	Pompano fine sand	6.32	6.34	0.02	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	25	Placid and Myakka fine sands, depressional	6.34	6.52	0.18	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	30	Pompano fine sand	6.52	6.76	0.24	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	13	Samsula muck	6.76	6.80	0.04	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Polk	15	Tavares fine sand, 0 to 5 percent slopes	6.80	6.88	0.08	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	36	Basinger mucky fine sand, depressional	6.80	6.80	b/	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	13	Samsula muck	6.88	6.91	0.03	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Polk	15	Tavares fine sand, 0 to 5 percent slopes	6.91	6.97	0.06	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	46	Astatula sand, 0 to 5 percent slopes	6.97	7.12	0.15	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	25	Placid and Myakka fine sands, depressional	7.00	7.00	b/	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	88	Astatula sand, 5 to 12 percent slopes	7.12	7.24	0.12	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	89	Astatula sand, 12 to 20 percent slopes	7.24	7.30	0.06	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	15	Tavares fine sand, 0 to 5 percent slopes	7.30	7.30	b/	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	30	Pompano fine sand	7.30	7.31	0.01	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	25	Placid and Myakka fine sands, depressional	7.31	7.38	0.07	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	30	Pompano fine sand	7.38	7.46	0.08	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	13	Samsula muck	7.46	8.01	0.55	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Polk	21	Immokalee sand	8.01	8.26	0.25	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
Polk	13	Samsula muck	8.26	8.39	0.13	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Polk	21	Immokalee sand	8.39	8.46	0.07	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
Polk	15	Tavares fine sand, 0 to 5 percent slopes	8.46	8.57	0.11	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	46	Astatula sand, 0 to 5 percent slopes	8.57	8.64	0.07	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	13	Samsula muck	8.64	8.69	0.05	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Polk	88	Astatula sand, 5 to 12 percent slopes	8.69	8.75	0.06	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	46	Astatula sand, 0 to 5 percent slopes	8.75	9.09	0.34	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	22	Pomello fine sand	9.09	9.15	0.06	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	13	Samsula muck	9.15	9.37	0.22	Farmland of unique importance	8	Low	Yes	No	> 60 in	High

Notes:
a/ Approximate MP along the proposed pipeline rounded to the nearest 1/100th.
b/ These soil polygons within the pipeline construction area do not cross the pipeline centerline. The closest MP to the polygon is identified as the Start and End MP.
c/ There is no Prime farmland located within the FSC Project. Farmland of Unique Importance includes soils designated as such by the NRCS (SSURGO reference column "farmlndcl").
d/ WEGs were obtained from the NRCS Soil Data Mart. WEGs range from 1 to 8, with 1 being the highest potential for wind erosion, and 8 the lowest. Highly wind erodible soils include those in wind erodibility groups 1 or 2 (SSURGO reference column "weg").
e/ Water erosion potential was determined by averaging the K factor values of horizons of each soil type. Based on the average K factor, each soil type was grouped into a water erosion class of "Low", "Moderate", and "High". Highly water erodible soils include those with water classified as highly erodible land.
f/ "Urban Land" and "Udorthents" map units do not have a NRCS designated hydric soil status. These map units were considered to be non-hydric soils. Map units comprised of complexes of hydric and non-hydric soil types were considered to be partially hydric.
g/ Droughty soils include those that meet droughty soils criteria (i.e., soils with sandy loam or coarser texture and are moderately to excessively well drained) (SSURGO reference column "texcl" and "drainagecl").
h/ No Stony/Rocky soils were identified along the FSC Project.
i/ Depth to bedrock is not defined by the NRCS for the "Pavement and Buildings" map unit. In these cases, a depth to bedrock of >60" was assigned, which is consistent with NRCS designations for other natural and fill soils in the Project area. Shallow bedrock include those that have lithic or paralithic bedrock within 60 inches or less of the soil surface (SSURGO and STATSGO reference column "rescind" and "resdept_r").
j/ Compaction potential was determined by drainage class. High compaction potential includes very poorly drained and poorly drained soils, moderate compaction potential includes somewhat poorly drained to moderately well drained soils, and low compaction potential includes well drained soils.

Table 7.2-2

Soil Types by County Impacted by the FSC Pipeline and Aboveground Facilities

County	Map Unit Symbol	Map Unit Name	MP Start a/	MP END a/	MP Length (Miles) a/	Prime Farmland or Farmland of Unique Importance c/	WEG d/	K Factor e/	Hydric f/	Droughty g/	Depth to Bedrock h/, i/	Compaction Potential j/
Polk	17	Smyrna and Myakka fine sands	9.37	9.45	0.08	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	13	Samsula muck	9.45	9.66	0.21	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Polk	17	Smyrna and Myakka fine sands	9.66	9.82	0.16	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	13	Samsula muck	9.70	9.70	b/	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Polk	13	Samsula muck	9.82	9.88	0.06	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Polk	35	Hontoon muck	9.88	10.41	0.53	Not prime farmland	8	Low	Yes	No	> 60 in	High
Polk	13	Samsula muck	10.41	10.51	0.10	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Polk	36	Basinger mucky fine sand, depressional	10.51	10.80	0.29	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	21	Immokalee sand	10.80	10.92	0.12	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
Polk	36	Basinger mucky fine sand, depressional	10.92	10.97	0.05	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	21	Immokalee sand	10.97	11.00	0.03	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
Polk	15	Tavares fine sand, 0 to 5 percent slopes	11.00	11.10	0.10	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	25	Placid and Myakka fine sands, depressional	11.10	11.10	b/	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	21	Immokalee sand	11.10	11.19	0.09	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
Polk	13	Samsula muck	11.19	11.25	0.06	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Polk	17	Smyrna and Myakka fine sands	11.25	11.32	0.07	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	25	Placid and Myakka fine sands, depressional	11.32	11.51	0.19	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	15	Tavares fine sand, 0 to 5 percent slopes	11.51	11.56	0.05	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	3	Candler sand, 0 to 5 percent slopes	11.56	11.60	0.04	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low
Polk	17	Smyrna and Myakka fine sands	11.60	11.61	0.01	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	25	Placid and Myakka fine sands, depressional	11.61	11.63	0.02	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	17	Smyrna and Myakka fine sands	11.63	11.65	0.02	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	3	Candler sand, 0 to 5 percent slopes	11.65	11.70	0.05	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low
Polk	17	Smyrna and Myakka fine sands	11.70	11.77	0.07	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	3	Candler sand, 0 to 5 percent slopes	11.77	11.82	0.05	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low
Polk	15	Tavares fine sand, 0 to 5 percent slopes	11.82	11.93	0.11	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	17	Smyrna and Myakka fine sands	11.93	12.12	0.19	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	15	Tavares fine sand, 0 to 5 percent slopes	12.00	12.00	b/	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	31	Adamsville fine sand	12.10	12.10	b/	Farmland of unique importance	1	Low	No	No	> 60 in	Moderate
Polk	3	Candler sand, 0 to 5 percent slopes	12.12	12.18	0.06	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low
Polk	31	Adamsville fine sand	12.18	12.22	0.04	Farmland of unique importance	1	Low	No	No	> 60 in	Moderate

Notes:
a/ Approximate MP along the proposed pipeline rounded to the nearest 1/100th.
b/ These soil polygons within the pipeline construction area do not cross the pipeline centerline. The closest MP to the polygon is identified as the Start and End MP.
c/ There is no Prime farmland located within the FSC Project. Farmland of Unique Importance includes soils designated as such by the NRCS (SSURGO reference column "farmlndcl").
d/ WEGs were obtained from the NRCS Soil Data Mart. WEGs range from 1 to 8, with 1 being the highest potential for wind erosion, and 8 the lowest. Highly wind erodible soils include those in wind erodibility groups 1 or 2 (SSURGO reference column "weg").
e/ Water erosion potential was determined by averaging the K factor values of horizons of each soil type. Based on the average K factor, each soil type was grouped into a water erosion class of “Low”, “Moderate”, and “High”. Highly water erodibile soils include those with water classified as highly erodible land.
f/ “Urban Land” and “Udorthents” map units do not have a NRCS designated hydric soil status. These map units were considered to be non-hydric soils. Map units comprised of complexes of hydric and non-hydric soil types were considered to be partially hydric.
g/ Droughty soils include those that meet droughty soils criteria (i.e., soils with sandy loam or coarser texture and are moderately to excessively well drained) (SSURGO reference column “texcl” and “drainagecl”).
h/ No Stony/Rocky soils were identified along the FSC Project.
i/ Depth to bedrock is not defined by the NRCS for the “Pavement and Buildings” map unit. In these cases, a depth to bedrock of >60” was assigned, which is consistent with NRCS designations for other natural and fill soils in the Project area. Shallow bedrock include those that have lithic or paralithic bedrock within 60 inches or less of the soil surface (SSURGO and STATSGO reference column “rescind” and “resdept_r”).
j/ Compaction potential was determined by drainage class. High compaction potential includes very poorly drained and poorly drained soils, moderate compaction potential includes somewhat poorly drained to moderately well drained soils, and low compaction potential includes well drained soils.

Table 7.2-2

Soil Types by County Impacted by the FSC Pipeline and Aboveground Facilities

County	Map Unit Symbol	Map Unit Name	MP Start a/	MP END a/	MP Length (Miles) a/	Prime Farmland or Farmland of Unique Importance c/	WEG d/	K Factor e/	Hydric f/	Droughty g/	Depth to Bedrock h/, i/	Compaction Potential j/
Polk	17	Smyrna and Myakka fine sands	12.22	12.24	0.02	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	31	Adamsville fine sand	12.24	12.24	b/	Farmland of unique importance	1	Low	No	No	> 60 in	Moderate
Polk	17	Smyrna and Myakka fine sands	12.24	12.30	0.06	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	31	Adamsville fine sand	12.30	12.49	0.19	Farmland of unique importance	1	Low	No	No	> 60 in	Moderate
Polk	13	Samsula muck	12.40	12.40	b/	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Polk	13	Samsula muck	12.49	12.62	0.13	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Polk	17	Smyrna and Myakka fine sands	12.62	12.79	0.17	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	31	Adamsville fine sand	12.79	12.85	0.06	Farmland of unique importance	1	Low	No	No	> 60 in	Moderate
Polk	3	Candler sand, 0 to 5 percent slopes	12.85	13.23	0.38	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low
Polk	17	Smyrna and Myakka fine sands	13.00	13.00	b/	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	17	Smyrna and Myakka fine sands	13.20	13.20	b/	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	17	Smyrna and Myakka fine sands	13.23	13.54	0.31	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	3	Candler sand, 0 to 5 percent slopes	13.54	15.97	2.43	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low
Polk	15	Tavares fine sand, 0 to 5 percent slopes	15.97	16.04	0.07	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	74	Narcoossee sand	16.04	16.07	0.03	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	36	Basinger mucky fine sand, depressional	16.07	16.12	0.05	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	13	Samsula muck	16.12	16.16	0.04	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Polk	36	Basinger mucky fine sand, depressional	16.16	16.19	0.03	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	74	Narcoossee sand	16.19	16.22	0.03	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	15	Tavares fine sand, 0 to 5 percent slopes	16.22	16.34	0.12	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	23	Ona fine sand	16.34	16.43	0.09	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	15	Tavares fine sand, 0 to 5 percent slopes	16.40	16.40	b/	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	15	Tavares fine sand, 0 to 5 percent slopes	16.43	16.46	0.03	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	23	Ona fine sand	16.46	16.54	0.08	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	15	Tavares fine sand, 0 to 5 percent slopes	16.54	16.55	0.01	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	35	Hontoon muck	16.55	16.62	0.07	Not prime farmland	8	Low	Yes	No	> 60 in	High
Polk	15	Tavares fine sand, 0 to 5 percent slopes	16.62	16.69	0.07	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	3	Candler sand, 0 to 5 percent slopes	16.69	17.40	0.71	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low
Polk	15	Tavares fine sand, 0 to 5 percent slopes	17.40	17.52	0.12	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	3	Candler sand, 0 to 5 percent slopes	17.52	17.65	0.13	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low
Polk	15	Tavares fine sand, 0 to 5 percent slopes	17.65	18.25	0.60	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate

Notes:
a/ Approximate MP along the proposed pipeline rounded to the nearest 1/100th.
b/ These soil polygons within the pipeline construction area do not cross the pipeline centerline. The closest MP to the polygon is identified as the Start and End MP.
c/ There is no Prime farmland located within the FSC Project. Farmland of Unique Importance includes soils designated as such by the NRCS (SSURGO reference column "farmlndcl").
d/ WEGs were obtained from the NRCS Soil Data Mart. WEGs range from 1 to 8, with 1 being the highest potential for wind erosion, and 8 the lowest. Highly wind erodible soils include those in wind erodibility groups 1 or 2 (SSURGO reference column "weg").
e/ Water erosion potential was determined by averaging the K factor values of horizons of each soil type. Based on the average K factor, each soil type was grouped into a water erosion class of “Low”, “Moderate”, and “High”. Highly water erodibile soils include those with water classified as highly erodible land.
f/ “Urban Land” and “Udorthents” map units do not have a NRCS designated hydric soil status. These map units were considered to be non-hydric soils. Map units comprised of complexes of hydric and non-hydric soil types were considered to be partially hydric.
g/ Droughty soils include those that meet droughty soils criteria (i.e., soils with sandy loam or coarser texture and are moderately to excessively well drained) (SSURGO reference column “texcl” and “drainagecl”).
h/ No Stony/Rocky soils were identified along the FSC Project.
i/ Depth to bedrock is not defined by the NRCS for the “Pavement and Buildings” map unit. In these cases, a depth to bedrock of >60” was assigned, which is consistent with NRCS designations for other natural and fill soils in the Project area. Shallow bedrock include those that have lithic or paralithic bedrock within 60 inches or less of the soil surface (SSURGO and STATSGO reference column “rescind” and “resdept_r”).
j/ Compaction potential was determined by drainage class. High compaction potential includes very poorly drained and poorly drained soils, moderate compaction potential includes somewhat poorly drained to moderately well drained soils, and low compaction potential includes well drained soils.

Table 7.2-2

Soil Types by County Impacted by the FSC Pipeline and Aboveground Facilities

County	Map Unit Symbol	Map Unit Name	MP Start a/	MP END a/	MP Length (Miles) a/	Prime Farmland or Farmland of Unique Importance c/	WEG d/	K Factor e/	Hydric f/	Droughty g/	Depth to Bedrock h/, i/	Compaction Potential j/
Polk	3	Candler sand, 0 to 5 percent slopes	18.00	18.00	b/	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low
Polk	13	Samsula muck	18.10	18.10	b/	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Polk	3	Candler sand, 0 to 5 percent slopes	18.10	18.10	b/	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low
Polk	3	Candler sand, 0 to 5 percent slopes	18.25	18.29	0.04	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low
Polk	15	Tavares fine sand, 0 to 5 percent slopes	18.29	18.29	b/	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	3	Candler sand, 0 to 5 percent slopes	18.29	18.49	0.20	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low
Polk	13	Samsula muck	18.49	18.63	0.14	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Polk	3	Candler sand, 0 to 5 percent slopes	18.63	18.99	0.36	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low
Polk	15	Tavares fine sand, 0 to 5 percent slopes	18.99	19.04	0.05	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	17	Smyrna and Myakka fine sands	19.04	19.11	0.07	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	35	Hontoon muck	19.11	19.67	0.56	Not prime farmland	8	Low	Yes	No	> 60 in	High
Polk	17	Smyrna and Myakka fine sands	19.67	19.92	0.25	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	35	Hontoon muck	19.80	19.80	b/	Not prime farmland	8	Low	Yes	No	> 60 in	High
Polk	15	Tavares fine sand, 0 to 5 percent slopes	19.92	19.98	0.06	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	3	Candler sand, 0 to 5 percent slopes	19.98	22.11	2.13	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low
Polk	15	Tavares fine sand, 0 to 5 percent slopes	22.11	22.16	0.05	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	3	Candler sand, 0 to 5 percent slopes	22.16	22.48	0.32	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low
Polk	15	Tavares fine sand, 0 to 5 percent slopes	22.48	22.75	0.27	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	3	Candler sand, 0 to 5 percent slopes	22.75	22.79	0.04	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low
Polk	15	Tavares fine sand, 0 to 5 percent slopes	22.79	22.83	0.04	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	3	Candler sand, 0 to 5 percent slopes	22.83	23.20	0.37	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low
Polk	15	Tavares fine sand, 0 to 5 percent slopes	23.20	23.27	0.07	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	3	Candler sand, 0 to 5 percent slopes	23.27	23.36	0.09	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low
Polk	4	Candler sand, 5 to 8 percent slopes	23.36	23.44	0.08	Farmland of unique importance	1	Low	No	No	40 in	High
Polk	3	Candler sand, 0 to 5 percent slopes	23.44	25.31	1.87	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low
Polk	15	Tavares fine sand, 0 to 5 percent slopes	25.31	25.42	0.11	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	25	Placid and Myakka fine sands, depressional	25.40	25.40	b/	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	3	Candler sand, 0 to 5 percent slopes	25.42	25.92	0.50	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low
Polk	15	Tavares fine sand, 0 to 5 percent slopes	25.92	27.05	1.13	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	76	Millhopper fine sand, 0 to 5 percent slopes	27.05	27.07	0.02	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	15	Tavares fine sand, 0 to 5 percent slopes	27.07	28.38	1.31	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate

Notes:
a/ Approximate MP along the proposed pipeline rounded to the nearest 1/100th.
b/ These soil polygons within the pipeline construction area do not cross the pipeline centerline. The closest MP to the polygon is identified as the Start and End MP.
c/ There is no Prime farmland located within the FSC Project. Farmland of Unique Importance includes soils designated as such by the NRCS (SSURGO reference column "farmlndcl").
d/ WEGs were obtained from the NRCS Soil Data Mart. WEGs range from 1 to 8, with 1 being the highest potential for wind erosion, and 8 the lowest. Highly wind erodible soils include those in wind erodibility groups 1 or 2 (SSURGO reference column "weg").
e/ Water erosion potential was determined by averaging the K factor values of horizons of each soil type. Based on the average K factor, each soil type was grouped into a water erosion class of "Low", "Moderate", and "High". Highly water erodible soils include those with water classified as highly erodible land.
f/ "Urban Land" and "Udorthents" map units do not have a NRCS designated hydric soil status. These map units were considered to be non-hydric soils. Map units comprised of complexes of hydric and non-hydric soil types were considered to be partially hydric.
g/ Droughty soils include those that meet droughty soils criteria (i.e., soils with sandy loam or coarser texture and are moderately to excessively well drained) (SSURGO reference column "texcl" and "drainagecl").
h/ No Stony/Rocky soils were identified along the FSC Project.
i/ Depth to bedrock is not defined by the NRCS for the "Pavement and Buildings" map unit. In these cases, a depth to bedrock of >60" was assigned, which is consistent with NRCS designations for other natural and fill soils in the Project area. Shallow bedrock include those that have lithic or paralithic bedrock within 60 inches or less of the soil surface (SSURGO and STATSGO reference column "rescind" and "resdept_r").
j/ Compaction potential was determined by drainage class. High compaction potential includes very poorly drained and poorly drained soils, moderate compaction potential includes somewhat poorly drained to moderately well drained soils, and low compaction potential includes well drained soils.

Table 7.2-2

Soil Types by County Impacted by the FSC Pipeline and Aboveground Facilities

County	Map Unit Symbol	Map Unit Name	MP Start a/	MP END a/	MP Length (Miles) a/	Prime Farmland or Farmland of Unique Importance c/	WEG d/	K Factor e/	Hydric f/	Droughty g/	Depth to Bedrock h/, i/	Compaction Potential j/
Polk	36	Basinger mucky fine sand, depressional	28.38	28.43	0.05	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	15	Tavares fine sand, 0 to 5 percent slopes	28.43	28.53	0.10	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	13	Samsula muck	28.53	28.63	0.10	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Polk	15	Tavares fine sand, 0 to 5 percent slopes	28.63	28.70	0.07	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	74	Narcoossee sand	28.70	28.77	0.07	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	17	Smyrna and Myakka fine sands	28.70	28.70	b/	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	15	Tavares fine sand, 0 to 5 percent slopes	28.77	28.91	0.14	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	17	Smyrna and Myakka fine sands	28.91	28.95	0.04	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	36	Basinger mucky fine sand, depressional	28.95	28.97	0.02	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	17	Smyrna and Myakka fine sands	28.97	29.01	0.04	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	46	Astatula sand, 0 to 5 percent slopes	29.01	29.25	0.24	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	11	Arents-Water complex	29.25	29.46	0.21	Not prime farmland	1	Low	No	No	> 60 in	High
Polk	15	Tavares fine sand, 0 to 5 percent slopes	29.46	29.84	0.38	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	11	Arents-Water complex	29.80	29.80	b/	Not prime farmland	1	Low	No	No	> 60 in	High
Polk	11	Arents-Water complex	29.84	29.84	b/	Not prime farmland	1	Low	No	No	> 60 in	High
Polk	12	Neilhurst sand, 1 to 5 percent slopes	29.84	30.26	0.42	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	15	Tavares fine sand, 0 to 5 percent slopes	30.26	30.31	0.05	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	46	Astatula sand, 0 to 5 percent slopes	30.31	30.43	0.12	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	15	Tavares fine sand, 0 to 5 percent slopes	30.43	30.50	0.07	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	46	Astatula sand, 0 to 5 percent slopes	30.50	30.58	0.08	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	12	Neilhurst sand, 1 to 5 percent slopes	30.50	30.50	b/	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	15	Tavares fine sand, 0 to 5 percent slopes	30.58	30.64	0.06	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	12	Neilhurst sand, 1 to 5 percent slopes	30.60	30.60	b/	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	12	Neilhurst sand, 1 to 5 percent slopes	30.64	30.64	b/	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	46	Astatula sand, 0 to 5 percent slopes	30.64	30.69	0.05	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	12	Neilhurst sand, 1 to 5 percent slopes	30.69	30.84	0.15	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	46	Astatula sand, 0 to 5 percent slopes	30.84	31.91	1.07	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	15	Tavares fine sand, 0 to 5 percent slopes	31.10	31.10	b/	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	36	Basinger mucky fine sand, depressional	31.30	31.30	b/	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	15	Tavares fine sand, 0 to 5 percent slopes	31.91	31.96	0.05	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	46	Astatula sand, 0 to 5 percent slopes	31.96	33.06	1.10	Not prime farmland	1	Low	No	Yes	> 60 in	Low

Notes:
a/ Approximate MP along the proposed pipeline rounded to the nearest 1/100th.
b/ These soil polygons within the pipeline construction area do not cross the pipeline centerline. The closest MP to the polygon is identified as the Start and End MP.
c/ There is no Prime farmland located within the FSC Project. Farmland of Unique Importance includes soils designated as such by the NRCS (SSURGO reference column "farmlndcl").
d/ WEGs were obtained from the NRCS Soil Data Mart. WEGs range from 1 to 8, with 1 being the highest potential for wind erosion, and 8 the lowest. Highly wind erodible soils include those in wind erodibility groups 1 or 2 (SSURGO reference column "weg").
e/ Water erosion potential was determined by averaging the K factor values of horizons of each soil type. Based on the average K factor, each soil type was grouped into a water erosion class of "Low", "Moderate", and "High". Highly water erodible soils include those with water classified as highly erodible land.
f/ "Urban Land" and "Udorthents" map units do not have a NRCS designated hydric soil status. These map units were considered to be non-hydric soils. Map units comprised of complexes of hydric and non-hydric soil types were considered to be partially hydric.
g/ Droughty soils include those that meet droughty soils criteria (i.e., soils with sandy loam or coarser texture and are moderately to excessively well drained) (SSURGO reference column "texcl" and "drainagecl").
h/ No Stony/Rocky soils were identified along the FSC Project.
i/ Depth to bedrock is not defined by the NRCS for the "Pavement and Buildings" map unit. In these cases, a depth to bedrock of >60" was assigned, which is consistent with NRCS designations for other natural and fill soils in the Project area. Shallow bedrock include those that have lithic or paralithic bedrock within 60 inches or less of the soil surface (SSURGO and STATSGO reference column "rescind" and "resdept_r").
j/ Compaction potential was determined by drainage class. High compaction potential includes very poorly drained and poorly drained soils, moderate compaction potential includes somewhat poorly drained to moderately well drained soils, and low compaction potential includes well drained soils.

FLORIDA SOUTHEAST CONNECTION

Table 7.2-2

Soil Types by County Impacted by the FSC Pipeline and Aboveground Facilities

County	Map Unit Symbol	Map Unit Name	MP Start a/	MP END a/	MP Length (Miles) a/	Prime Farmland or Farmland of Unique Importance c/	WEG d/	K Factor e/	Hydric f/	Droughty g/	Depth to Bedrock h/, i/	Compaction Potential j/
Polk	88	Astatula sand, 5 to 12 percent slopes	33.06	33.14	0.08	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	46	Astatula sand, 0 to 5 percent slopes	33.14	33.34	0.20	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	88	Astatula sand, 5 to 12 percent slopes	33.34	33.34	b/	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	15	Tavares fine sand, 0 to 5 percent slopes	33.34	33.40	0.06	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	88	Astatula sand, 5 to 12 percent slopes	33.40	33.42	0.02	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	46	Astatula sand, 0 to 5 percent slopes	33.42	33.55	0.13	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	15	Tavares fine sand, 0 to 5 percent slopes	33.55	33.66	0.11	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	46	Astatula sand, 0 to 5 percent slopes	33.66	33.89	0.23	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	15	Tavares fine sand, 0 to 5 percent slopes	33.80	33.80	b/	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	15	Tavares fine sand, 0 to 5 percent slopes	33.89	34.12	0.23	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	46	Astatula sand, 0 to 5 percent slopes	34.12	34.17	0.05	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	15	Tavares fine sand, 0 to 5 percent slopes	34.17	34.23	0.06	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	88	Astatula sand, 5 to 12 percent slopes	34.23	34.28	0.05	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	46	Astatula sand, 0 to 5 percent slopes	34.28	34.28	b/	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	88	Astatula sand, 5 to 12 percent slopes	34.28	34.33	0.05	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	46	Astatula sand, 0 to 5 percent slopes	34.33	34.39	0.06	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	15	Tavares fine sand, 0 to 5 percent slopes	34.39	34.46	0.07	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Polk	46	Astatula sand, 0 to 5 percent slopes	34.46	34.99	0.53	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	83	Archbold sand, 0 to 5 percent slopes	34.99	35.20	0.21	Not prime farmland	1	Low	No	Yes	> 60 in	Moderate
Polk	29	St. Lucie fine sand, 0 to 5 percent slopes	35.20	35.24	0.04	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	17	Smyrna and Myakka fine sands	35.24	35.29	0.05	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	22	Pomello fine sand	35.29	35.51	0.22	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	77	Satellite sand	35.51	35.65	0.14	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	21	Immokalee sand	35.65	35.86	0.21	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
Polk	17	Smyrna and Myakka fine sands	35.86	35.90	0.04	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	41	St. Johns sand	35.90	35.99	0.09	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	17	Smyrna and Myakka fine sands	35.99	36.08	0.09	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	86	Felda fine sand, depressional	36.08	36.10	0.02	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	17	Smyrna and Myakka fine sands	36.10	36.65	0.55	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	19	Floridana mucky fine sand, depressional	36.65	36.73	0.08	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	42	Felda fine sand	36.73	36.76	0.03	Farmland of unique importance	1	Low	No	No	> 60 in	High

Notes:
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c/ There is no Prime farmland located within the FSC Project. Farmland of Unique Importance includes soils designated as such by the NRCS (SSURGO reference column "farmlndcl").
d/ WEGs were obtained from the NRCS Soil Data Mart. WEGs range from 1 to 8, with 1 being the highest potential for wind erosion, and 8 the lowest. Highly wind erodible soils include those in wind erodibility groups 1 or 2 (SSURGO reference column "weg").
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g/ Droughty soils include those that meet droughty soils criteria (i.e., soils with sandy loam or coarser texture and are moderately to excessively well drained) (SSURGO reference column "texcl" and "drainagecl").
h/ No Stony/Rocky soils were identified along the FSC Project.
i/ Depth to bedrock is not defined by the NRCS for the "Pavement and Buildings" map unit. In these cases, a depth to bedrock of >60" was assigned, which is consistent with NRCS designations for other natural and fill soils in the Project area. Shallow bedrock include those that have lithic or paralithic bedrock within 60 inches or less of the soil surface (SSURGO and STATSGO reference column "rescind" and "resdept_r").
j/ Compaction potential was determined by drainage class. High compaction potential includes very poorly drained and poorly drained soils, moderate compaction potential includes somewhat poorly drained to moderately well drained soils, and low compaction potential includes well drained soils.

FLORIDA SOUTHEAST CONNECTION

Table 7.2-2

Soil Types by County Impacted by the FSC Pipeline and Aboveground Facilities

County	Map Unit Symbol	Map Unit Name	MP Start a/	MP END a/	MP Length (Miles) a/	Prime Farmland or Farmland of Unique Importance c/	WEG d/	K Factor e/	Hydric f/	Droughty g/	Depth to Bedrock h/, i/	Compaction Potential j/
Polk	40	Wauchula fine sand	36.76	36.93	0.17	Not prime farmland	8	Low	Yes	No	> 60 in	High
Polk	86	Felda fine sand, depressional	36.93	36.98	0.05	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	40	Wauchula fine sand	36.98	37.04	0.06	Not prime farmland	8	Low	Yes	No	> 60 in	High
Polk	7	Pomona fine sand	37.04	37.11	0.07	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	17	Smyrna and Myakka fine sands	37.11	38.30	1.19	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	7	Pomona fine sand	37.80	37.80	b/	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	24	Nittaw sandy clay loam, frequently flooded	38.30	38.41	0.11	Not prime farmland	5	Low	Yes	No	> 60 in	High
Polk	42	Felda fine sand	38.41	38.49	0.08	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	87	Basinger fine sand	38.49	38.60	0.11	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	17	Smyrna and Myakka fine sands	38.60	38.78	0.18	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	74	Narcoossee sand	38.78	39.04	0.26	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	17	Smyrna and Myakka fine sands	39.04	39.34	0.30	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	74	Narcoossee sand	39.34	39.38	0.04	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	17	Smyrna and Myakka fine sands	39.38	39.61	0.23	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	36	Basinger mucky fine sand, depressional	39.40	39.40	b/	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	36	Basinger mucky fine sand, depressional	39.61	39.63	0.02	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	17	Smyrna and Myakka fine sands	39.63	40.07	0.44	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	36	Basinger mucky fine sand, depressional	40.07	40.15	0.08	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	17	Smyrna and Myakka fine sands	40.15	40.34	0.19	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	5	EauGallie fine sand	40.34	40.44	0.10	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	7	Pomona fine sand	40.40	40.40	b/	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	7	Pomona fine sand	40.44	40.45	0.01	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	6	Eaton mucky fine sand, depressional	40.45	40.61	0.16	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	62	Wabasso fine sand	40.61	40.70	0.09	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	9	Lynne sand	40.70	40.89	0.19	Farmland of unique importance	1	Low	No	No	> 60 in	Moderate
Polk	6	Eaton mucky fine sand, depressional	40.89	40.96	0.07	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	44	Paisley fine sand	40.96	41.01	0.05	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	6	Eaton mucky fine sand, depressional	41.01	41.06	0.05	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Polk	9	Lynne sand	41.06	41.26	0.20	Farmland of unique importance	1	Low	No	No	> 60 in	Moderate
Polk	86	Felda fine sand, depressional	41.26	41.35	0.09	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	62	Wabasso fine sand	41.35	41.58	0.23	Not prime farmland	1	Low	Yes	No	> 60 in	High

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FLORIDA SOUTHEAST CONNECTION

Table 7.2-2

Soil Types by County Impacted by the FSC Pipeline and Aboveground Facilities

County	Map Unit Symbol	Map Unit Name	MP Start a/	MP END a/	MP Length (Miles) a/	Prime Farmland or Farmland of Unique Importance c/	WEG d/	K Factor e/	Hydric f/	Droughty g/	Depth to Bedrock h/, i/	Compaction Potential j/
Polk	43	Oldsmar fine sand	41.50	41.50	b/	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	43	Oldsmar fine sand	41.58	41.99	0.41	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	62	Wabasso fine sand	41.99	42.07	0.08	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	82	Felda fine sand, frequently flooded	42.07	42.22	0.15	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	82	Felda fine sand, frequently flooded	42.20	42.20	b/	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	62	Wabasso fine sand	42.22	42.44	0.22	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	86	Felda fine sand, depressional	42.44	42.51	0.07	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	62	Wabasso fine sand	42.51	42.66	0.15	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	7	Pomona fine sand	42.66	42.97	0.31	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	17	Smyrna and Myakka fine sands	42.97	46.69	3.72	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	25	Placid and Myakka fine sands, depressional	46.69	46.80	0.11	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	17	Smyrna and Myakka fine sands	46.80	47.45	0.65	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	23	Ona fine sand	47.45	47.49	0.04	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	87	Basinger fine sand	47.49	47.54	0.05	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	23	Ona fine sand	47.54	47.58	0.04	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	17	Smyrna and Myakka fine sands	47.58	47.67	0.09	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	21	Immokalee sand	47.67	47.85	0.18	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
Polk	17	Smyrna and Myakka fine sands	47.85	48.23	0.38	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	36	Basinger mucky fine sand, depressional	48.23	48.31	0.08	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	17	Smyrna and Myakka fine sands	48.31	48.95	0.64	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	13	Samsula muck	48.95	48.97	0.02	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Polk	17	Smyrna and Myakka fine sands	48.97	49.30	0.33	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	21	Immokalee sand	49.30	49.39	0.09	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
Polk	17	Smyrna and Myakka fine sands	49.39	50.33	0.94	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	25	Placid and Myakka fine sands, depressional	50.33	50.40	0.07	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	17	Smyrna and Myakka fine sands	50.40	50.44	0.04	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	43	Oldsmar fine sand	50.44	50.67	0.23	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	42	Felda fine sand	50.67	51.11	0.44	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	19	Floridana mucky fine sand, depressional	50.70	50.70	b/	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	10	Malabar fine sand	50.90	50.90	b/	Not prime farmland	2	Low	Yes	No	> 60 in	High
Polk	43	Oldsmar fine sand	51.11	51.44	0.33	Not prime farmland	1	Low	Yes	No	> 60 in	High

Notes:
a/ Approximate MP along the proposed pipeline rounded to the nearest 1/100th.
b/ These soil polygons within the pipeline construction area do not cross the pipeline centerline. The closest MP to the polygon is identified as the Start and End MP.
c/ There is no Prime farmland located within the FSC Project. Farmland of Unique Importance includes soils designated as such by the NRCS (SSURGO reference column "farmlndcl").
d/ WEGs were obtained from the NRCS Soil Data Mart. WEGs range from 1 to 8, with 1 being the highest potential for wind erosion, and 8 the lowest. Highly wind erodible soils include those in wind erodibility groups 1 or 2 (SSURGO reference column "weg").
e/ Water erosion potential was determined by averaging the K factor values of horizons of each soil type. Based on the average K factor, each soil type was grouped into a water erosion class of "Low", "Moderate", and "High". Highly water erodibile soils include those with water classified as highly erodible land.
f/ "Urban Land" and "Udorthents" map units do not have a NRCS designated hydric soil status. These map units were considered to be non-hydric soils. Map units comprised of complexes of hydric and non-hydric soil types were considered to be partially hydric.
g/ Droughty soils include those that meet droughty soils criteria (i.e., soils with sandy loam or coarser texture and are moderately to excessively well drained) (SSURGO reference column "texcl" and "drainagecl").
h/ No Stony/Rocky soils were identified along the FSC Project.
i/ Depth to bedrock is not defined by the NRCS for the "Pavement and Buildings" map unit. In these cases, a depth to bedrock of >60" was assigned, which is consistent with NRCS designations for other natural and fill soils in the Project area. Shallow bedrock include those that have lithic or paralithic bedrock within 60 inches or less of the soil surface (SSURGO and STATSGO reference column "rescind" and "resdept_r").
j/ Compaction potential was determined by drainage class. High compaction potential includes very poorly drained and poorly drained soils, moderate compaction potential includes somewhat poorly drained to moderately well drained soils, and low compaction potential includes well drained soils.

FLORIDA SOUTHEAST CONNECTION

Table 7.2-2

Soil Types by County Impacted by the FSC Pipeline and Aboveground Facilities

County	Map Unit Symbol	Map Unit Name	MP Start a/	MP END a/	MP Length (Miles) a/	Prime Farmland or Farmland of Unique Importance c/	WEG d/	K Factor e/	Hydric f/	Droughty g/	Depth to Bedrock h/, i/	Compaction Potential j/
Polk	19	Floridana mucky fine sand, depressional	51.44	51.50	0.06	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	43	Oldsmar fine sand	51.50	52.26	0.76	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	42	Felda fine sand	52.26	52.65	0.39	Farmland of unique importance	1	Low	No	No	> 60 in	High
Polk	32	Kaliga muck	52.40	52.40	b/	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	32	Kaliga muck	52.65	53.33	0.68	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	19	Floridana mucky fine sand, depressional	52.80	52.80	b/	Not prime farmland	1	Low	Yes	No	> 60 in	High
Polk	81	St. Augustine sand	53.33	53.58	0.25	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Polk	32	Kaliga muck	53.40	53.40	b/	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	99	Water	53.58	53.66	0.08	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Osceola	47	Winder loamy fine sand	53.66	53.88	0.22	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	12	Floridana fine sand, depressional	53.88	53.98	0.10	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Osceola	1	Adamsville sand	53.98	54.16	0.18	Farmland of unique importance	1	Low	No	No	> 60 in	Moderate
Osceola	16	Immokalee fine sand	54.16	54.35	0.19	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	10	Delray loamy fine sand, depressional	54.30	54.30	b/	Not prime farmland	2	Low	Yes	No	> 60 in	High
Osceola	5	Basinger fine sand	54.30	54.30	b/	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	20	Malabar fine sand, depressional	54.30	54.30	b/	Not prime farmland	1	Low	No	Yes	> 60 in	Moderate
Osceola	10	Delray loamy fine sand, depressional	54.35	54.39	0.04	Not prime farmland	2	Low	Yes	No	> 60 in	High
Osceola	5	Basinger fine sand	54.39	54.46	0.07	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	22	Myakka fine sand	54.46	55.75	1.29	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	5	Basinger fine sand	55.75	55.85	0.10	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	6	Basinger fine sand, depressional	55.80	55.80	b/	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Osceola	42	Smyrna fine sand	55.85	56.03	0.18	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	16	Immokalee fine sand	56.03	56.21	0.18	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	42	Smyrna fine sand	56.21	56.44	0.23	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	16	Immokalee fine sand	56.44	56.73	0.29	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	6	Basinger fine sand, depressional	56.73	56.76	0.03	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Osceola	16	Immokalee fine sand	56.76	56.95	0.19	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	5	Basinger fine sand	56.95	56.98	0.03	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	6	Basinger fine sand, depressional	56.98	57.12	0.14	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Osceola	5	Basinger fine sand	57.12	57.16	0.04	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	42	Smyrna fine sand	57.16	57.38	0.22	Farmland of unique importance	1	Low	No	No	> 60 in	High

Notes:
a/ Approximate MP along the proposed pipeline rounded to the nearest 1/100th.
b/ These soil polygons within the pipeline construction area do not cross the pipeline centerline. The closest MP to the polygon is identified as the Start and End MP.
c/ There is no Prime farmland located within the FSC Project. Farmland of Unique Importance includes soils designated as such by the NRCS (SSURGO reference column "farmlndcl").
d/ WEGs were obtained from the NRCS Soil Data Mart. WEGs range from 1 to 8, with 1 being the highest potential for wind erosion, and 8 the lowest. Highly wind erodible soils include those in wind erodibility groups 1 or 2 (SSURGO reference column "weg").
e/ Water erosion potential was determined by averaging the K factor values of horizons of each soil type. Based on the average K factor, each soil type was grouped into a water erosion class of "Low", "Moderate", and "High". Highly water erodible soils include those with water classified as highly erodible land.
f/ "Urban Land" and "Udorthents" map units do not have a NRCS designated hydric soil status. These map units were considered to be non-hydric soils. Map units comprised of complexes of hydric and non-hydric soil types were considered to be partially hydric.
g/ Droughty soils include those that meet droughty soils criteria (i.e., soils with sandy loam or coarser texture and are moderately to excessively well drained) (SSURGO reference column "texcl" and "drainagecl").
h/ No Stony/Rocky soils were identified along the FSC Project.
i/ Depth to bedrock is not defined by the NRCS for the "Pavement and Buildings" map unit. In these cases, a depth to bedrock of >60" was assigned, which is consistent with NRCS designations for other natural and fill soils in the Project area. Shallow bedrock include those that have lithic or paralithic bedrock within 60 inches or less of the soil surface (SSURGO and STATSGO reference column "rescind" and "resdept_r").
j/ Compaction potential was determined by drainage class. High compaction potential includes very poorly drained and poorly drained soils, moderate compaction potential includes somewhat poorly drained to moderately well drained soils, and low compaction potential includes well drained soils.

Table 7.2-2

Soil Types by County Impacted by the FSC Pipeline and Aboveground Facilities

County	Map Unit Symbol	Map Unit Name	MP Start a/	MP END a/	MP Length (Miles) a/	Prime Farmland or Farmland of Unique Importance c/	WEG d/	K Factor e/	Hydric f/	Droughty g/	Depth to Bedrock h/, i/	Compaction Potential j/
Osceola	16	Immokalee fine sand	57.38	57.55	0.17	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	6	Basinger fine sand, depressional	57.55	57.77	0.22	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Osceola	22	Myakka fine sand	57.77	57.85	0.08	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	6	Basinger fine sand, depressional	57.85	57.94	0.09	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Osceola	22	Myakka fine sand	57.94	58.00	0.06	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	42	Smyrna fine sand	58.00	58.73	0.73	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	30	Pineda fine sand	58.73	58.77	0.04	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	39	Riviera fine sand, depressional	58.77	58.88	0.11	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	14	Holopaw fine sand	58.88	58.92	0.04	Not prime farmland	1	Low	No	No	> 60 in	High
Osceola	11	EauGallie fine sand	58.92	59.48	0.56	Not prime farmland	1	Low	No	No	> 60 in	High
Osceola	19	Malabar fine sand	59.48	59.58	0.10	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	11	EauGallie fine sand	59.58	60.21	0.63	Not prime farmland	1	Low	No	No	> 60 in	High
Osceola	30	Pineda fine sand	60.21	60.27	0.06	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	11	EauGallie fine sand	60.27	60.34	0.07	Not prime farmland	1	Low	No	No	> 60 in	High
Osceola	30	Pineda fine sand	60.34	60.39	0.05	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	11	EauGallie fine sand	60.39	60.40	0.01	Not prime farmland	1	Low	No	No	> 60 in	High
Osceola	30	Pineda fine sand	60.40	60.45	0.05	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	11	EauGallie fine sand	60.45	60.51	0.06	Not prime farmland	1	Low	No	No	> 60 in	High
Osceola	19	Malabar fine sand	60.51	60.67	0.16	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	30	Pineda fine sand	60.67	60.83	0.16	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	11	EauGallie fine sand	60.83	61.13	0.30	Not prime farmland	1	Low	No	No	> 60 in	High
Osceola	19	Malabar fine sand	61.13	61.30	0.17	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	11	EauGallie fine sand	61.30	61.39	0.09	Not prime farmland	1	Low	No	No	> 60 in	High
Osceola	19	Malabar fine sand	61.39	61.43	0.04	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	11	EauGallie fine sand	61.43	61.64	0.21	Not prime farmland	1	Low	No	No	> 60 in	High
Osceola	19	Malabar fine sand	61.64	61.79	0.15	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	20	Malabar fine sand, depressional	61.70	61.70	b/	Not prime farmland	1	Low	No	Yes	> 60 in	Moderate
Osceola	11	EauGallie fine sand	61.79	62.43	0.64	Not prime farmland	1	Low	No	No	> 60 in	High
Osceola	20	Malabar fine sand, depressional	61.80	61.80	b/	Not prime farmland	1	Low	No	Yes	> 60 in	Moderate
Osceola	42	Smyrna fine sand	62.43	62.75	0.32	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	22	Myakka fine sand	62.75	62.84	0.09	Farmland of unique importance	1	Low	No	No	> 60 in	High

Notes:
a/ Approximate MP along the proposed pipeline rounded to the nearest 1/100th.
b/ These soil polygons within the pipeline construction area do not cross the pipeline centerline. The closest MP to the polygon is identified as the Start and End MP.
c/ There is no Prime farmland located within the FSC Project. Farmland of Unique Importance includes soils designated as such by the NRCS (SSURGO reference column "farmlndcl").
d/ WEGs were obtained from the NRCS Soil Data Mart. WEGs range from 1 to 8, with 1 being the highest potential for wind erosion, and 8 the lowest. Highly wind erodible soils include those in wind erodibility groups 1 or 2 (SSURGO reference column "weg").
e/ Water erosion potential was determined by averaging the K factor values of horizons of each soil type. Based on the average K factor, each soil type was grouped into a water erosion class of “Low”, “Moderate”, and “High”. Highly water erodibile soils include those with water classified as highly erodible land.
f/ “Urban Land” and “Udorthents” map units do not have a NRCS designated hydric soil status. These map units were considered to be non-hydric soils. Map units comprised of complexes of hydric and non-hydric soil types were considered to be partially hydric.
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h/ No Stony/Rocky soils were identified along the FSC Project.
i/ Depth to bedrock is not defined by the NRCS for the “Pavement and Buildings” map unit. In these cases, a depth to bedrock of >60” was assigned, which is consistent with NRCS designations for other natural and fill soils in the Project area. Shallow bedrock include those that have lithic or paralithic bedrock within 60 inches or less of the soil surface (SSURGO and STATSGO reference column “rescind” and “resdept_r”).
j/ Compaction potential was determined by drainage class. High compaction potential includes very poorly drained and poorly drained soils, moderate compaction potential includes somewhat poorly drained to moderately well drained soils, and low compaction potential includes well drained soils.

Table 7.2-2

Soil Types by County Impacted by the FSC Pipeline and Aboveground Facilities

County	Map Unit Symbol	Map Unit Name	MP Start a/	MP END a/	MP Length (Miles) a/	Prime Farmland or Farmland of Unique Importance c/	WEG d/	K Factor e/	Hydric f/	Droughty g/	Depth to Bedrock h/, i/	Compaction Potential j/
Osceola	11	EauGallie fine sand	62.84	63.09	0.25	Not prime farmland	1	Low	No	No	> 60 in	High
Osceola	19	Malabar fine sand	63.09	63.79	0.70	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	11	EauGallie fine sand	63.79	63.95	0.16	Not prime farmland	1	Low	No	No	> 60 in	High
Osceola	11	EauGallie fine sand	63.80	63.80	b/	Not prime farmland	1	Low	No	No	> 60 in	High
Osceola	11	EauGallie fine sand	63.90	63.90	b/	Not prime farmland	1	Low	No	No	> 60 in	High
Osceola	19	Malabar fine sand	63.95	64.04	0.09	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	42	Smyrna fine sand	64.04	64.15	0.11	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	11	EauGallie fine sand	64.15	64.21	0.06	Not prime farmland	1	Low	No	No	> 60 in	High
Osceola	42	Smyrna fine sand	64.21	64.30	0.09	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	11	EauGallie fine sand	64.30	64.36	0.06	Not prime farmland	1	Low	No	No	> 60 in	High
Osceola	20	Malabar fine sand, depressional	64.36	64.45	0.09	Not prime farmland	1	Low	No	Yes	> 60 in	Moderate
Osceola	19	Malabar fine sand	64.45	64.55	0.10	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	11	EauGallie fine sand	64.55	64.68	0.13	Not prime farmland	1	Low	No	No	> 60 in	High
Osceola	42	Smyrna fine sand	64.68	65.16	0.48	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	5	Basinger fine sand	65.16	65.27	0.11	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	42	Smyrna fine sand	65.27	65.64	0.37	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	19	Malabar fine sand	65.64	65.75	0.11	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	42	Smyrna fine sand	65.75	66.24	0.49	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	22	Myakka fine sand	66.24	66.26	0.02	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	5	Basinger fine sand	66.26	66.31	0.05	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	6	Basinger fine sand, depressional	66.30	66.30	b/	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Osceola	42	Smyrna fine sand	66.31	66.65	0.34	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	11	EauGallie fine sand	66.65	66.71	0.06	Not prime farmland	1	Low	No	No	> 60 in	High
Osceola	19	Malabar fine sand	66.71	66.76	0.05	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	30	Pineda fine sand	66.76	66.80	0.04	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	19	Malabar fine sand	66.80	66.87	0.07	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	11	EauGallie fine sand	66.87	66.99	0.12	Not prime farmland	1	Low	No	No	> 60 in	High
Osceola	30	Pineda fine sand	66.99	67.04	0.05	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	11	EauGallie fine sand	67.04	67.14	0.10	Not prime farmland	1	Low	No	No	> 60 in	High
Osceola	22	Myakka fine sand	67.14	67.17	0.03	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	42	Smyrna fine sand	67.17	67.21	0.04	Farmland of unique importance	1	Low	No	No	> 60 in	High

Notes:
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Table 7.2-2

Soil Types by County Impacted by the FSC Pipeline and Aboveground Facilities

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Osceola	6	Basinger fine sand, depressional	67.21	67.28	0.07	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Osceola	42	Smyrna fine sand	67.28	67.53	0.25	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	22	Myakka fine sand	67.53	67.62	0.09	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	42	Smyrna fine sand	67.62	68.00	0.38	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	6	Basinger fine sand, depressional	68.00	68.13	0.13	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Osceola	42	Smyrna fine sand	68.13	68.14	0.01	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	5	Basinger fine sand	68.14	68.36	0.22	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	42	Smyrna fine sand	68.36	69.57	1.21	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	19	Malabar fine sand	69.57	69.62	0.05	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	20	Malabar fine sand, depressional	69.62	69.67	0.05	Not prime farmland	1	Low	No	Yes	> 60 in	Moderate
Osceola	6	Basinger fine sand, depressional	69.67	69.70	0.03	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Osceola	20	Malabar fine sand, depressional	69.70	69.76	0.06	Not prime farmland	1	Low	No	Yes	> 60 in	Moderate
Osceola	5	Basinger fine sand	69.76	69.87	0.11	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	40	Samsula muck	69.87	69.92	0.05	Not prime farmland	8	Low	Yes	No	> 60 in	High
Osceola	42	Smyrna fine sand	69.92	70.05	0.13	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	16	Immokalee fine sand	70.05	70.16	0.11	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	9	Cassia fine sand	70.16	70.25	0.09	Farmland of unique importance	1	Low	No	No	> 60 in	Moderate
Osceola	42	Smyrna fine sand	70.25	70.58	0.33	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	5	Basinger fine sand	70.50	70.50	b/	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	6	Basinger fine sand, depressional	70.58	70.67	0.09	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Osceola	42	Smyrna fine sand	70.67	70.79	0.12	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	17	Kaliga muck	70.79	70.84	0.05	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	40	Samsula muck	70.84	70.87	0.03	Not prime farmland	8	Low	Yes	No	> 60 in	High
Osceola	17	Kaliga muck	70.87	70.92	0.05	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	40	Samsula muck	70.92	70.96	0.04	Not prime farmland	8	Low	Yes	No	> 60 in	High
Osceola	17	Kaliga muck	70.96	71.08	0.12	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	5	Basinger fine sand	71.08	71.10	0.02	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	22	Myakka fine sand	71.10	71.52	0.42	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	42	Smyrna fine sand	71.10	71.10	b/	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	42	Smyrna fine sand	71.52	71.83	0.31	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	9	Cassia fine sand	71.83	71.99	0.16	Farmland of unique importance	1	Low	No	No	> 60 in	Moderate

Notes:
a/ Approximate MP along the proposed pipeline rounded to the nearest 1/100th.
b/ These soil polygons within the pipeline construction area do not cross the pipeline centerline. The closest MP to the polygon is identified as the Start and End MP.
c/ There is no Prime farmland located within the FSC Project. Farmland of Unique Importance includes soils designated as such by the NRCS (SSURGO reference column "farmlndcl").
d/ WEGs were obtained from the NRCS Soil Data Mart. WEGs range from 1 to 8, with 1 being the highest potential for wind erosion, and 8 the lowest. Highly wind erodible soils include those in wind erodibility groups 1 or 2 (SSURGO reference column "weg").
e/ Water erosion potential was determined by averaging the K factor values of horizons of each soil type. Based on the average K factor, each soil type was grouped into a water erosion class of "Low", "Moderate", and "High". Highly water erodibile soils include those with water classified as highly erodible land.
f/ "Urban Land" and "Udorthents" map units do not have a NRCS designated hydric soil status. These map units were considered to be non-hydric soils. Map units comprised of complexes of hydric and non-hydric soil types were considered to be partially hydric.
g/ Droughty soils include those that meet droughty soils criteria (i.e., soils with sandy loam or coarser texture and are moderately to excessively well drained) (SSURGO reference column "texcl" and "drainagecl").
h/ No Stony/Rocky soils were identified along the FSC Project.
i/ Depth to bedrock is not defined by the NRCS for the "Pavement and Buildings" map unit. In these cases, a depth to bedrock of >60" was assigned, which is consistent with NRCS designations for other natural and fill soils in the Project area. Shallow bedrock include those that have lithic or paralithic bedrock within 60 inches or less of the soil surface (SSURGO and STATSGO reference column "rescind" and "resdept_r").
j/ Compaction potential was determined by drainage class. High compaction potential includes very poorly drained and poorly drained soils, moderate compaction potential includes somewhat poorly drained to moderately well drained soils, and low compaction potential includes well drained soils.

Table 7.2-2

Soil Types by County Impacted by the FSC Pipeline and Aboveground Facilities

County	Map Unit Symbol	Map Unit Name	MP Start a/	MP END a/	MP Length (Miles) a/	Prime Farmland or Farmland of Unique Importance c/	WEG d/	K Factor e/	Hydric f/	Droughty g/	Depth to Bedrock h/, i/	Compaction Potential j/
Osceola	43	St. Lucie fine sand, 0 to 5 percent slopes	71.99	72.05	0.06	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	9	Cassia fine sand	72.05	72.17	0.12	Farmland of unique importance	1	Low	No	No	> 60 in	Moderate
Osceola	9	Cassia fine sand	72.10	72.10	b/	Farmland of unique importance	1	Low	No	No	> 60 in	Moderate
Osceola	43	St. Lucie fine sand, 0 to 5 percent slopes	72.17	72.32	0.15	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	9	Cassia fine sand	72.32	72.37	0.05	Farmland of unique importance	1	Low	No	No	> 60 in	Moderate
Osceola	24	Narcoossee fine sand	72.37	72.42	0.05	Not prime farmland	5	Low	Yes	No	> 60 in	High
Osceola	9	Cassia fine sand	72.42	72.68	0.26	Farmland of unique importance	1	Low	No	No	> 60 in	Moderate
Osceola	22	Myakka fine sand	72.50	72.50	b/	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	22	Myakka fine sand	72.68	72.94	0.26	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	9	Cassia fine sand	72.94	73.16	0.22	Farmland of unique importance	1	Low	No	No	> 60 in	Moderate
Osceola	42	Smyrna fine sand	73.16	73.29	0.13	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	22	Myakka fine sand	73.29	73.39	0.10	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	6	Basinger fine sand, depressional	73.39	73.47	0.08	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Osceola	22	Myakka fine sand	73.47	73.55	0.08	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	34	Pomello fine sand, 0 to 5 percent slopes	73.55	73.63	0.08	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	28	Paola sand, 0 to 5 percent slopes	73.63	73.77	0.14	Not prime farmland	1	Low	No	Yes	> 60 in	
Osceola	34	Pomello fine sand, 0 to 5 percent slopes	73.77	73.93	0.16	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	16	Immokalee fine sand	73.93	74.04	0.11	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	37	Pompano fine sand, depressional	74.04	74.18	0.14	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	22	Myakka fine sand	74.18	74.92	0.74	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	26	Oldsmar fine sand	74.92	75.19	0.27	Not prime farmland	1	Low	No	No	> 60 in	High
Osceola	41	Satellite sand	75.19	75.57	0.38	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Osceola	42	Smyrna fine sand	75.57	75.65	0.08	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	41	Satellite sand	75.65	75.79	0.14	Not prime farmland	1	Low	No	No	> 60 in	Moderate
Osceola	22	Myakka fine sand	75.79	75.91	0.12	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	5	Basinger fine sand	75.91	75.96	0.05	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	42	Smyrna fine sand	75.96	75.98	0.02	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	22	Myakka fine sand	75.98	76.38	0.40	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	9	Cassia fine sand	76.38	76.52	0.14	Farmland of unique importance	1	Low	No	No	> 60 in	Moderate
Osceola	22	Myakka fine sand	76.52	76.62	0.10	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	42	Smyrna fine sand	76.62	76.77	0.15	Farmland of unique importance	1	Low	No	No	> 60 in	High

Notes:
a/ Approximate MP along the proposed pipeline rounded to the nearest 1/100th.
b/ These soil polygons within the pipeline construction area do not cross the pipeline centerline. The closest MP to the polygon is identified as the Start and End MP.
c/ There is no Prime farmland located within the FSC Project. Farmland of Unique Importance includes soils designated as such by the NRCS (SSURGO reference column "farmlndcl").
d/ WEGs were obtained from the NRCS Soil Data Mart. WEGs range from 1 to 8, with 1 being the highest potential for wind erosion, and 8 the lowest. Highly wind erodible soils include those in wind erodibility groups 1 or 2 (SSURGO reference column "weg").
e/ Water erosion potential was determined by averaging the K factor values of horizons of each soil type. Based on the average K factor, each soil type was grouped into a water erosion class of "Low", "Moderate", and "High". Highly water erodible soils include those with water classified as highly erodible land.
f/ "Urban Land" and "Udorthents" map units do not have a NRCS designated hydric soil status. These map units were considered to be non-hydric soils. Map units comprised of complexes of hydric and non-hydric soil types were considered to be partially hydric.
g/ Droughty soils include those that meet droughty soils criteria (i.e., soils with sandy loam or coarser texture and are moderately to excessively well drained) (SSURGO reference column "texcl" and "drainagecl").
h/ No Stony/Rocky soils were identified along the FSC Project.
i/ Depth to bedrock is not defined by the NRCS for the "Pavement and Buildings" map unit. In these cases, a depth to bedrock of >60" was assigned, which is consistent with NRCS designations for other natural and fill soils in the Project area. Shallow bedrock include those that have lithic or paralithic bedrock within 60 inches or less of the soil surface (SSURGO and STATSGO reference column "rescind" and "resdept_r").
j/ Compaction potential was determined by drainage class. High compaction potential includes very poorly drained and poorly drained soils, moderate compaction potential includes somewhat poorly drained to moderately well drained soils, and low compaction potential includes well drained soils.

FLORIDA SOUTHEAST CONNECTION

Table 7.2-2

Soil Types by County Impacted by the FSC Pipeline and Aboveground Facilities

County	Map Unit Symbol	Map Unit Name	MP Start a/	MP END a/	MP Length (Miles) a/	Prime Farmland or Farmland of Unique Importance c/	WEG d/	K Factor e/	Hydric f/	Droughty g/	Depth to Bedrock h/, i/	Compaction Potential j/
Osceola	5	Basinger fine sand	76.77	76.99	0.22	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	22	Myakka fine sand	76.99	77.22	0.23	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	37	Pompano fine sand, depressional	77.22	77.27	0.05	Not prime farmland	1	Low	Yes	No	> 60 in	High
Osceola	16	Immokalee fine sand	77.27	77.50	0.23	Farmland of unique importance	1	Low	No	No	> 60 in	High
Osceola	32	Placid fine sand, depressional	77.50	77.50	b/	Not prime farmland	1	Low	Yes	No	> 60 in	High
Okeechobee	14	Myakka fine sand	77.50	77.51	0.01	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	20	Pomello fine sand, 0 to 5 percent slopes	77.51	77.88	0.37	Not prime farmland	1	Low	No	Yes	> 60 in	Moderate
Okeechobee	14	Myakka fine sand	77.88	78.21	0.33	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	20	Pomello fine sand, 0 to 5 percent slopes	78.21	78.28	0.07	Not prime farmland	1	Low	No	Yes	> 60 in	Moderate
Okeechobee	14	Myakka fine sand	78.28	78.36	0.08	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	20	Pomello fine sand, 0 to 5 percent slopes	78.36	78.49	0.13	Not prime farmland	1	Low	No	Yes	> 60 in	Moderate
Okeechobee	14	Myakka fine sand	78.49	78.86	0.37	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	3	Basinger and Placid soils, depressional	78.86	78.98	0.12	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low
Okeechobee	14	Myakka fine sand	78.98	79.06	0.08	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	20	Pomello fine sand, 0 to 5 percent slopes	79.06	79.19	0.13	Not prime farmland	1	Low	No	Yes	> 60 in	Moderate
Okeechobee	14	Myakka fine sand	79.19	79.23	0.04	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	23	St. Johns fine sand	79.23	79.31	0.08	Not prime farmland	1	Low	Yes	No	> 60 in	High
Okeechobee	14	Myakka fine sand	79.31	79.56	0.25	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	20	Pomello fine sand, 0 to 5 percent slopes	79.56	79.62	0.06	Not prime farmland	1	Low	No	Yes	> 60 in	Moderate
Okeechobee	14	Myakka fine sand	79.62	79.83	0.21	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	23	St. Johns fine sand	79.83	79.87	0.04	Not prime farmland	1	Low	Yes	No	> 60 in	High
Okeechobee	14	Myakka fine sand	79.87	80.03	0.16	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	3	Basinger and Placid soils, depressional	80.00	80.00	b/	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low
Okeechobee	3	Basinger and Placid soils, depressional	80.03	80.13	0.10	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low
Okeechobee	14	Myakka fine sand	80.13	80.66	0.53	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	3	Basinger and Placid soils, depressional	80.66	80.71	0.05	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low
Okeechobee	14	Myakka fine sand	80.71	80.83	0.12	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	3	Basinger and Placid soils, depressional	80.83	80.97	0.14	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low
Okeechobee	14	Myakka fine sand	80.97	81.11	0.14	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	3	Basinger and Placid soils, depressional	81.11	81.23	0.12	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low
Okeechobee	14	Myakka fine sand	81.23	81.69	0.46	Not prime farmland	1	Low	No	No	> 60 in	High

Notes:
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c/ There is no Prime farmland located within the FSC Project. Farmland of Unique Importance includes soils designated as such by the NRCS (SSURGO reference column "farmlndcl").
d/ WEGs were obtained from the NRCS Soil Data Mart. WEGs range from 1 to 8, with 1 being the highest potential for wind erosion, and 8 the lowest. Highly wind erodible soils include those in wind erodibility groups 1 or 2 (SSURGO reference column "weg").
e/ Water erosion potential was determined by averaging the K factor values of horizons of each soil type. Based on the average K factor, each soil type was grouped into a water erosion class of "Low", "Moderate", and "High". Highly water erodibile soils include those with water classified as highly erodible land.
f/ "Urban Land" and "Udorthents" map units do not have a NRCS designated hydric soil status. These map units were considered to be non-hydric soils. Map units comprised of complexes of hydric and non-hydric soil types were considered to be partially hydric.
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h/ No Stony/Rocky soils were identified along the FSC Project.
i/ Depth to bedrock is not defined by the NRCS for the "Pavement and Buildings" map unit. In these cases, a depth to bedrock of >60" was assigned, which is consistent with NRCS designations for other natural and fill soils in the Project area. Shallow bedrock include those that have lithic or paralithic bedrock within 60 inches or less of the soil surface (SSURGO and STATSGO reference column "rescind" and "resdept_r").
j/ Compaction potential was determined by drainage class. High compaction potential includes very poorly drained and poorly drained soils, moderate compaction potential includes somewhat poorly drained to moderately well drained soils, and low compaction potential includes well drained soils.

Table 7.2-2

Soil Types by County Impacted by the FSC Pipeline and Aboveground Facilities

County	Map Unit Symbol	Map Unit Name	MP Start a/	MP END a/	MP Length (Miles) a/	Prime Farmland or Farmland of Unique Importance c/	WEG d/	K Factor e/	Hydric f/	Droughty g/	Depth to Bedrock h/, i/	Compaction Potential j/
Okeechobee	3	Basinger and Placid soils, depressional	81.30	81.30	b/	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low
Okeechobee	23	St. Johns fine sand	81.69	81.88	0.19	Not prime farmland	1	Low	Yes	No	> 60 in	High
Okeechobee	14	Myakka fine sand	81.88	81.94	0.06	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	23	St. Johns fine sand	81.94	82.00	0.06	Not prime farmland	1	Low	Yes	No	> 60 in	High
Okeechobee	19	Floridana, Placid, and Okeelanta soils, frequently flooded	82.00	82.09	0.09	Not prime farmland	1	Low	Yes	No	> 60 in	High
Okeechobee	19	Floridana, Placid, and Okeelanta soils, frequently flooded	82.00	82.00	b/	Not prime farmland	1	Low	Yes	No	> 60 in	High
Okeechobee	23	St. Johns fine sand	82.09	82.32	0.23	Not prime farmland	1	Low	Yes	No	> 60 in	High
Okeechobee	11	Immokalee fine sand	82.32	82.46	0.14	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	17	Orsino fine sand	82.46	82.82	0.36	Farmland of unique importance	1	Low	No	No	> 60 in	High
Okeechobee	20	Pomello fine sand, 0 to 5 percent slopes	82.82	82.88	0.06	Not prime farmland	1	Low	No	Yes	> 60 in	Moderate
Okeechobee	14	Myakka fine sand	82.88	82.98	0.10	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	23	St. Johns fine sand	82.98	83.05	0.07	Not prime farmland	1	Low	Yes	No	> 60 in	High
Okeechobee	19	Floridana, Placid, and Okeelanta soils, frequently flooded	83.05	83.14	0.09	Not prime farmland	1	Low	Yes	No	> 60 in	High
Okeechobee	14	Myakka fine sand	83.14	83.26	0.12	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	20	Pomello fine sand, 0 to 5 percent slopes	83.26	83.35	0.09	Not prime farmland	1	Low	No	Yes	> 60 in	Moderate
Okeechobee	14	Myakka fine sand	83.35	83.59	0.24	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	20	Pomello fine sand, 0 to 5 percent slopes	83.59	83.81	0.22	Not prime farmland	1	Low	No	Yes	> 60 in	Moderate
Okeechobee	14	Myakka fine sand	83.81	84.03	0.22	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	20	Pomello fine sand, 0 to 5 percent slopes	84.03	84.19	0.16	Not prime farmland	1	Low	No	Yes	> 60 in	Moderate
Okeechobee	11	Immokalee fine sand	84.19	84.29	0.10	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	14	Myakka fine sand	84.29	84.33	0.04	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	3	Basinger and Placid soils, depressional	84.33	84.46	0.13	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low
Okeechobee	14	Myakka fine sand	84.46	84.71	0.25	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	19	Floridana, Placid, and Okeelanta soils, frequently flooded	84.71	84.75	0.04	Not prime farmland	1	Low	Yes	No	> 60 in	High
Okeechobee	14	Myakka fine sand	84.75	84.83	0.08	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	17	Orsino fine sand	84.83	85.00	0.17	Farmland of unique importance	1	Low	No	No	> 60 in	High
Okeechobee	20	Pomello fine sand, 0 to 5 percent slopes	85.00	85.04	0.04	Not prime farmland	1	Low	No	Yes	> 60 in	Moderate
Okeechobee	17	Orsino fine sand	85.04	85.54	0.50	Farmland of unique importance	1	Low	No	No	> 60 in	High
Okeechobee	20	Pomello fine sand, 0 to 5 percent slopes	85.54	85.64	0.10	Not prime farmland	1	Low	No	Yes	> 60 in	Moderate
Okeechobee	11	Immokalee fine sand	85.64	85.78	0.14	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	3	Basinger and Placid soils, depressional	85.78	85.86	0.08	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low

Notes:
a/ Approximate MP along the proposed pipeline rounded to the nearest 1/100th.
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d/ WEGs were obtained from the NRCS Soil Data Mart. WEGs range from 1 to 8, with 1 being the highest potential for wind erosion, and 8 the lowest. Highly wind erodible soils include those in wind erodibility groups 1 or 2 (SSURGO reference column "weg").
e/ Water erosion potential was determined by averaging the K factor values of horizons of each soil type. Based on the average K factor, each soil type was grouped into a water erosion class of "Low", "Moderate", and "High". Highly water erodible soils include those with water classified as highly erodible land.
f/ "Urban Land" and "Udorthents" map units do not have a NRCS designated hydric soil status. These map units were considered to be non-hydric soils. Map units comprised of complexes of hydric and non-hydric soil types were considered to be partially hydric.
g/ Droughty soils include those that meet droughty soils criteria (i.e., soils with sandy loam or coarser texture and are moderately to excessively well drained) (SSURGO reference column "texcl" and "drainagecl").
h/ No Stony/Rocky soils were identified along the FSC Project.
i/ Depth to bedrock is not defined by the NRCS for the "Pavement and Buildings" map unit. In these cases, a depth to bedrock of >60" was assigned, which is consistent with NRCS designations for other natural and fill soils in the Project area. Shallow bedrock include those that have lithic or paralithic bedrock within 60 inches or less of the soil surface (SSURGO and STATSGO reference column "rescind" and "resdept_r").
j/ Compaction potential was determined by drainage class. High compaction potential includes very poorly drained and poorly drained soils, moderate compaction potential includes somewhat poorly drained to moderately well drained soils, and low compaction potential includes well drained soils.

Table 7.2-2

Soil Types by County Impacted by the FSC Pipeline and Aboveground Facilities

County	Map Unit Symbol	Map Unit Name	MP Start a/	MP END a/	MP Length (Miles) a/	Prime Farmland or Farmland of Unique Importance c/	WEG d/	K Factor e/	Hydric f/	Droughty g/	Depth to Bedrock h/, i/	Compaction Potential j/
Okeechobee	19	Floridana, Placid, and Okeelanta soils, frequently flooded	85.86	86.02	0.16	Not prime farmland	1	Low	Yes	No	> 60 in	High
Okeechobee	14	Myakka fine sand	86.02	86.26	0.24	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	20	Pomello fine sand, 0 to 5 percent slopes	86.26	86.39	0.13	Not prime farmland	1	Low	No	Yes	> 60 in	Moderate
Okeechobee	17	Orsino fine sand	86.39	87.20	0.81	Farmland of unique importance	1	Low	No	No	> 60 in	High
Okeechobee	11	Immokalee fine sand	87.20	87.24	0.04	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	12	Udorthents, 2 to 35 percent slopes	87.24	87.28	0.04	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Okeechobee	11	Immokalee fine sand	87.28	87.33	0.05	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	19	Floridana, Placid, and Okeelanta soils, frequently flooded	87.33	87.45	0.12	Not prime farmland	1	Low	Yes	No	> 60 in	High
Okeechobee	14	Myakka fine sand	87.45	87.50	0.05	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	11	Immokalee fine sand	87.50	87.79	0.29	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	14	Myakka fine sand	87.79	87.86	0.07	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	7	Floridana, Riveria, and Placid soils, depressional	87.80	87.80	b/	Not prime farmland	1	Low	Yes	No	> 60 in	High
Okeechobee	11	Immokalee fine sand	87.86	87.91	0.05	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	14	Myakka fine sand	87.91	88.06	0.15	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	11	Immokalee fine sand	88.06	88.10	0.04	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	14	Myakka fine sand	88.10	88.18	0.08	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	11	Immokalee fine sand	88.18	88.20	0.02	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	14	Myakka fine sand	88.20	88.21	0.01	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	11	Immokalee fine sand	88.21	88.30	0.09	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	14	Myakka fine sand	88.30	88.46	0.16	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	11	Immokalee fine sand	88.46	89.37	0.91	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	15	Okeelanta muck	89.37	89.59	0.22	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Okeechobee	11	Immokalee fine sand	89.59	89.91	0.32	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	14	Myakka fine sand	89.91	90.28	0.37	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	20	Pomello fine sand, 0 to 5 percent slopes	90.28	90.41	0.13	Not prime farmland	1	Low	No	Yes	> 60 in	Moderate
Okeechobee	14	Myakka fine sand	90.41	90.96	0.55	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	23	St. Johns fine sand	90.96	90.98	0.02	Not prime farmland	1	Low	Yes	No	> 60 in	High
Okeechobee	3	Basinger and Placid soils, depressional	90.98	91.07	0.09	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low
Okeechobee	14	Myakka fine sand	91.07	91.14	0.07	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	11	Immokalee fine sand	91.14	91.59	0.45	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	14	Myakka fine sand	91.50	91.50	b/	Not prime farmland	1	Low	No	No	> 60 in	High

Notes:
a/ Approximate MP along the proposed pipeline rounded to the nearest 1/100th.
b/ These soil polygons within the pipeline construction area do not cross the pipeline centerline. The closest MP to the polygon is identified as the Start and End MP.
c/ There is no Prime farmland located within the FSC Project. Farmland of Unique Importance includes soils designated as such by the NRCS (SSURGO reference column "farmlndcl").
d/ WEGs were obtained from the NRCS Soil Data Mart. WEGs range from 1 to 8, with 1 being the highest potential for wind erosion, and 8 the lowest. Highly wind erodible soils include those in wind erodibility groups 1 or 2 (SSURGO reference column "weg").
e/ Water erosion potential was determined by averaging the K factor values of horizons of each soil type. Based on the average K factor, each soil type was grouped into a water erosion class of "Low", "Moderate", and "High". Highly water erodible soils include those with water classified as highly erodible land.
f/ "Urban Land" and "Udorthents" map units do not have a NRCS designated hydric soil status. These map units were considered to be non-hydric soils. Map units comprised of complexes of hydric and non-hydric soil types were considered to be partially hydric.
g/ Droughty soils include those that meet droughty soils criteria (i.e., soils with sandy loam or coarser texture and are moderately to excessively well drained) (SSURGO reference column "texcl" and "drainagecl").
h/ No Stony/Rocky soils were identified along the FSC Project.
i/ Depth to bedrock is not defined by the NRCS for the "Pavement and Buildings" map unit. In these cases, a depth to bedrock of >60" was assigned, which is consistent with NRCS designations for other natural and fill soils in the Project area. Shallow bedrock include those that have lithic or paralithic bedrock within 60 inches or less of the soil surface (SSURGO and STATSGO reference column "rescind" and "resdept_r").
j/ Compaction potential was determined by drainage class. High compaction potential includes very poorly drained and poorly drained soils, moderate compaction potential includes somewhat poorly drained to moderately well drained soils, and low compaction potential includes well drained soils.

FLORIDA SOUTHEAST CONNECTION

Table 7.2-2

Soil Types by County Impacted by the FSC Pipeline and Aboveground Facilities

County	Map Unit Symbol	Map Unit Name	MP Start a/	MP END a/	MP Length (Miles) a/	Prime Farmland or Farmland of Unique Importance c/	WEG d/	K Factor e/	Hydric f/	Droughty g/	Depth to Bedrock h/, i/	Compaction Potential j/
Okeechobee	14	Myakka fine sand	91.59	91.63	0.04	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	11	Immokalee fine sand	91.63	92.35	0.72	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	20	Pomello fine sand, 0 to 5 percent slopes	92.35	92.41	0.06	Not prime farmland	1	Low	No	Yes	> 60 in	Moderate
Okeechobee	11	Immokalee fine sand	92.41	92.83	0.42	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	20	Pomello fine sand, 0 to 5 percent slopes	92.83	92.98	0.15	Not prime farmland	1	Low	No	Yes	> 60 in	Moderate
Okeechobee	11	Immokalee fine sand	92.98	93.88	0.90	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	23	St. Johns fine sand	93.88	93.94	0.06	Not prime farmland	1	Low	Yes	No	> 60 in	High
Okeechobee	19	Floridana, Placid, and Okeelanta soils, frequently flooded	93.94	94.53	0.59	Not prime farmland	1	Low	Yes	No	> 60 in	High
Okeechobee	11	Immokalee fine sand	94.40	94.40	b/	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	11	Immokalee fine sand	94.53	94.64	0.11	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	19	Floridana, Placid, and Okeelanta soils, frequently flooded	94.60	94.60	b/	Not prime farmland	1	Low	Yes	No	> 60 in	High
Okeechobee	20	Pomello fine sand, 0 to 5 percent slopes	94.64	95.00	0.36	Not prime farmland	1	Low	No	Yes	> 60 in	Moderate
Okeechobee	11	Immokalee fine sand	95.00	95.41	0.41	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	2	Basinger fine sand	95.41	95.59	0.18	Farmland of unique importance	1	Low	Yes	No	25 in	High
Okeechobee	3	Basinger and Placid soils, depressional	95.50	95.50	b/	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low
Okeechobee	3	Basinger and Placid soils, depressional	95.59	95.65	0.06	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low
Okeechobee	11	Immokalee fine sand	95.65	95.95	0.30	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	20	Pomello fine sand, 0 to 5 percent slopes	95.95	96.13	0.18	Not prime farmland	1	Low	No	Yes	> 60 in	Moderate
Okeechobee	11	Immokalee fine sand	96.13	96.20	0.07	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	20	Pomello fine sand, 0 to 5 percent slopes	96.20	96.41	0.21	Not prime farmland	1	Low	No	Yes	> 60 in	Moderate
Okeechobee	11	Immokalee fine sand	96.41	98.95	2.54	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	7	Floridana, Riveria, and Placid soils, depressional	98.95	99.18	0.23	Not prime farmland	1	Low	Yes	No	> 60 in	High
Okeechobee	11	Immokalee fine sand	99.18	99.86	0.68	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	19	Floridana, Placid, and Okeelanta soils, frequently flooded	99.20	99.20	b/	Not prime farmland	1	Low	Yes	No	> 60 in	High
Okeechobee	20	Pomello fine sand, 0 to 5 percent slopes	99.86	100.01	0.15	Not prime farmland	1	Low	No	Yes	> 60 in	Moderate
Okeechobee	11	Immokalee fine sand	100.01	101.63	1.62	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	20	Pomello fine sand, 0 to 5 percent slopes	101.63	101.89	0.26	Not prime farmland	1	Low	No	Yes	> 60 in	Moderate
Okeechobee	11	Immokalee fine sand	101.89	102.19	0.30	Not prime farmland	1	Low	No	No	> 60 in	High
Okeechobee	3	Basinger and Placid soils, depressional	102.19	102.49	0.30	Farmland of unique importance	1	Low	No	Yes	> 60 in	Low
Okeechobee	15	Okeelanta muck	102.20	102.20	b/	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Okeechobee	15	Okeelanta muck	102.49	102.53	0.04	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate

Notes:
a/ Approximate MP along the proposed pipeline rounded to the nearest 1/100th.
b/ These soil polygons within the pipeline construction area do not cross the pipeline centerline. The closest MP to the polygon is identified as the Start and End MP.
c/ There is no Prime farmland located within the FSC Project. Farmland of Unique Importance includes soils designated as such by the NRCS (SSURGO reference column "farmlndcl").
d/ WEGs were obtained from the NRCS Soil Data Mart. WEGs range from 1 to 8, with 1 being the highest potential for wind erosion, and 8 the lowest. Highly wind erodible soils include those in wind erodibility groups 1 or 2 (SSURGO reference column "weg").
e/ Water erosion potential was determined by averaging the K factor values of horizons of each soil type. Based on the average K factor, each soil type was grouped into a water erosion class of "Low", "Moderate", and "High". Highly water erodibile soils include those with water classified as highly erodible land.
f/ "Urban Land" and "Udorthents" map units do not have a NRCS designated hydric soil status. These map units were considered to be non-hydric soils. Map units comprised of complexes of hydric and non-hydric soil types were considered to be partially hydric.
g/ Droughty soils include those that meet droughty soils criteria (i.e., soils with sandy loam or coarser texture and are moderately to excessively well drained) (SSURGO reference column "texcl" and "drainagecl").
h/ No Stony/Rocky soils were identified along the FSC Project.
i/ Depth to bedrock is not defined by the NRCS for the "Pavement and Buildings" map unit. In these cases, a depth to bedrock of >60" was assigned, which is consistent with NRCS designations for other natural and fill soils in the Project area. Shallow bedrock include those that have lithic or paralithic bedrock within 60 inches or less of the soil surface (SSURGO and STATSGO reference column "rescind" and "resdept_r").
j/ Compaction potential was determined by drainage class. High compaction potential includes very poorly drained and poorly drained soils, moderate compaction potential includes somewhat poorly drained to moderately well drained soils, and low compaction potential includes well drained soils.

FLORIDA SOUTHEAST CONNECTION

Table 7.2-2

Soil Types by County Impacted by the FSC Pipeline and Aboveground Facilities

County	Map Unit Symbol	Map Unit Name	MP Start a/	MP END a/	MP Length (Miles) a/	Prime Farmland or Farmland of Unique Importance c/	WEG d/	K Factor e/	Hydric f/	Droughty g/	Depth to Bedrock h/, i/	Compaction Potential j/
St. Lucie	8	Basinger sand	102.50	102.50	b/	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	40	Samsula muck, depressional	102.53	102.55	0.02	Not prime farmland	8	Low	Yes	No	> 60 in	High
St. Lucie	21	Lawnwood and Myakka sands	102.55	102.56	0.01	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	24	Myakka fine sand	102.56	102.59	0.03	Not prime farmland	5	Low	Yes	No	> 60 in	High
St. Lucie	21	Lawnwood and Myakka sands	102.59	102.60	0.01	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	24	Myakka fine sand	102.60	102.67	0.07	Not prime farmland	5	Low	Yes	No	> 60 in	High
St. Lucie	21	Lawnwood and Myakka sands	102.67	102.71	0.04	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	24	Myakka fine sand	102.71	102.75	0.04	Not prime farmland	5	Low	Yes	No	> 60 in	High
St. Lucie	21	Lawnwood and Myakka sands	102.75	103.26	0.51	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	25	Nettles and Oldsmar sands	103.26	103.29	0.03	Not prime farmland	1	Low	Yes	No	> 60 in	High
St. Lucie	49	Wabasso fine sand, gravelly substratum	103.29	103.32	0.03	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	49	Wabasso fine sand, gravelly substratum	103.30	103.30	b/	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	21	Lawnwood and Myakka sands	103.32	103.39	0.07	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	49	Wabasso fine sand, gravelly substratum	103.39	103.44	0.05	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	21	Lawnwood and Myakka sands	103.44	103.65	0.21	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	49	Wabasso fine sand, gravelly substratum	103.65	103.71	0.06	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	21	Lawnwood and Myakka sands	103.71	103.73	0.02	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	49	Wabasso fine sand, gravelly substratum	103.73	103.76	0.03	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	21	Lawnwood and Myakka sands	103.76	103.87	0.11	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	40	Samsula muck, depressional	103.87	103.90	0.03	Not prime farmland	8	Low	Yes	No	> 60 in	High
St. Lucie	50	Waveland and Immokalee fine sands	103.90	104.30	0.40	Not prime farmland	1	Low	No	No	> 60 in	Low
St. Lucie	21	Lawnwood and Myakka sands	103.90	103.90	b/	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	51	Waveland-Lawnwood complex, depressional	104.20	104.20	b/	Not prime farmland	1	Low	Yes	No	40 in	High
St. Lucie	21	Lawnwood and Myakka sands	104.30	104.89	0.59	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	51	Waveland-Lawnwood complex, depressional	104.50	104.50	b/	Not prime farmland	1	Low	Yes	No	40 in	High
St. Lucie	51	Waveland-Lawnwood complex, depressional	104.89	104.94	0.05	Not prime farmland	1	Low	Yes	No	40 in	High
St. Lucie	21	Lawnwood and Myakka sands	104.94	104.96	0.02	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	51	Waveland-Lawnwood complex, depressional	104.96	105.04	0.08	Not prime farmland	1	Low	Yes	No	40 in	High
St. Lucie	21	Lawnwood and Myakka sands	105.04	105.08	0.04	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	50	Waveland and Immokalee fine sands	105.08	105.41	0.33	Not prime farmland	1	Low	No	No	> 60 in	Low
St. Lucie	21	Lawnwood and Myakka sands	105.41	105.47	0.06	Farmland of unique importance	1	Low	Yes	No	> 60 in	High

Notes:
a/ Approximate MP along the proposed pipeline rounded to the nearest 1/100th.
b/ These soil polygons within the pipeline construction area do not cross the pipeline centerline. The closest MP to the polygon is identified as the Start and End MP.
c/ There is no Prime farmland located within the FSC Project. Farmland of Unique Importance includes soils designated as such by the NRCS (SSURGO reference column "farmlndcl").
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h/ No Stony/Rocky soils were identified along the FSC Project.
i/ Depth to bedrock is not defined by the NRCS for the "Pavement and Buildings" map unit. In these cases, a depth to bedrock of >60" was assigned, which is consistent with NRCS designations for other natural and fill soils in the Project area. Shallow bedrock include those that have lithic or paralithic bedrock within 60 inches or less of the soil surface (SSURGO and STATSGO reference column "rescind" and "resdept_r").
j/ Compaction potential was determined by drainage class. High compaction potential includes very poorly drained and poorly drained soils, moderate compaction potential includes somewhat poorly drained to moderately well drained soils, and low compaction potential includes well drained soils.

FLORIDA SOUTHEAST CONNECTION

Table 7.2-2

Soil Types by County Impacted by the FSC Pipeline and Aboveground Facilities

County	Map Unit Symbol	Map Unit Name	MP Start a/	MP END a/	MP Length (Miles) a/	Prime Farmland or Farmland of Unique Importance c/	WEG d/	K Factor e/	Hydric f/	Droughty g/	Depth to Bedrock h/, i/	Compaction Potential j/
St. Lucie	40	Samsula muck, depressional	105.47	105.50	0.03	Not prime farmland	8	Low	Yes	No	> 60 in	High
St. Lucie	21	Lawnwood and Myakka sands	105.50	105.65	0.15	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	40	Samsula muck, depressional	105.65	105.72	0.07	Not prime farmland	8	Low	Yes	No	> 60 in	High
St. Lucie	21	Lawnwood and Myakka sands	105.72	105.89	0.17	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	40	Samsula muck, depressional	105.89	105.98	0.09	Not prime farmland	8	Low	Yes	No	> 60 in	High
St. Lucie	21	Lawnwood and Myakka sands	105.98	106.43	0.45	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	40	Samsula muck, depressional	106.43	106.45	0.02	Not prime farmland	8	Low	Yes	No	> 60 in	High
St. Lucie	21	Lawnwood and Myakka sands	106.45	106.85	0.40	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	48	Wabasso sand	106.85	107.04	0.19	Farmland of unique importance	1	Low	Yes	No	14 in	High
St. Lucie	38	Riviera fine sand	106.90	106.90	b/	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
St. Lucie	21	Lawnwood and Myakka sands	107.00	107.00	b/	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	21	Lawnwood and Myakka sands	107.04	107.06	0.02	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	25	Nettles and Oldsmar sands	107.06	107.31	0.25	Not prime farmland	1	Low	Yes	No	> 60 in	High
St. Lucie	21	Lawnwood and Myakka sands	107.31	107.43	0.12	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	25	Nettles and Oldsmar sands	107.43	107.72	0.29	Not prime farmland	1	Low	Yes	No	> 60 in	High
St. Lucie	13	Floridana sand, depressional	107.72	107.81	0.09	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
St. Lucie	31	Pepper and EauGallie sands	107.81	107.88	0.07	Farmland of unique importance	1	Low	No	No	> 60 in	Moderate
St. Lucie	21	Lawnwood and Myakka sands	107.88	108.13	0.25	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	31	Pepper and EauGallie sands	108.13	108.19	0.06	Farmland of unique importance	1	Low	No	No	> 60 in	Moderate
St. Lucie	8	Basinger sand	108.19	108.22	0.03	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	21	Lawnwood and Myakka sands	108.22	108.37	0.15	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	34	Pompano sand	108.37	108.45	0.08	Not prime farmland	1	Low	Yes	No	> 60 in	High
St. Lucie	8	Basinger sand	108.45	108.53	0.08	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	21	Lawnwood and Myakka sands	108.53	109.05	0.52	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	4	Arents, 0-5 percent slopes	109.05	109.14	0.09	Farmland of unique importance	1	Low	No	No	40 in	High
St. Lucie	21	Lawnwood and Myakka sands	109.14	109.28	0.14	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	4	Arents, 0-5 percent slopes	109.28	109.34	0.06	Farmland of unique importance	1	Low	No	No	40 in	High
St. Lucie	21	Lawnwood and Myakka sands	109.34	109.50	0.16	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	50	Waveland and Immokalee fine sands	109.50	109.78	0.28	Not prime farmland	1	Low	No	No	> 60 in	Low
St. Lucie	21	Lawnwood and Myakka sands	109.78	109.99	0.21	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	40	Samsula muck, depressional	109.99	110.01	0.02	Not prime farmland	8	Low	Yes	No	> 60 in	High

Notes:
a/ Approximate MP along the proposed pipeline rounded to the nearest 1/100th.
b/ These soil polygons within the pipeline construction area do not cross the pipeline centerline. The closest MP to the polygon is identified as the Start and End MP.
c/ There is no Prime farmland located within the FSC Project. Farmland of Unique Importance includes soils designated as such by the NRCS (SSURGO reference column "farmlndcl").
d/ WEGs were obtained from the NRCS Soil Data Mart. WEGs range from 1 to 8, with 1 being the highest potential for wind erosion, and 8 the lowest. Highly wind erodible soils include those in wind erodibility groups 1 or 2 (SSURGO reference column "weg").
e/ Water erosion potential was determined by averaging the K factor values of horizons of each soil type. Based on the average K factor, each soil type was grouped into a water erosion class of "Low", "Moderate", and "High". Highly water erodibile soils include those with water classified as highly erodible land.
f/ "Urban Land" and "Udorthents" map units do not have a NRCS designated hydric soil status. These map units were considered to be non-hydric soils. Map units comprised of complexes of hydric and non-hydric soil types were considered to be partially hydric.
g/ Droughty soils include those that meet droughty soils criteria (i.e., soils with sandy loam or coarser texture and are moderately to excessively well drained) (SSURGO reference column "texcl" and "drainagecl").
h/ No Stony/Rocky soils were identified along the FSC Project.
i/ Depth to bedrock is not defined by the NRCS for the "Pavement and Buildings" map unit. In these cases, a depth to bedrock of >60" was assigned, which is consistent with NRCS designations for other natural and fill soils in the Project area. Shallow bedrock include those that have lithic or paralithic bedrock within 60 inches or less of the soil surface (SSURGO and STATSGO reference column "rescind" and "resdept_r").
j/ Compaction potential was determined by drainage class. High compaction potential includes very poorly drained and poorly drained soils, moderate compaction potential includes somewhat poorly drained to moderately well drained soils, and low compaction potential includes well drained soils.

FLORIDA SOUTHEAST CONNECTION

Table 7.2-2

Soil Types by County Impacted by the FSC Pipeline and Aboveground Facilities

County	Map Unit Symbol	Map Unit Name	MP Start a/	MP END a/	MP Length (Miles) a/	Prime Farmland or Farmland of Unique Importance c/	WEG d/	K Factor e/	Hydric f/	Droughty g/	Depth to Bedrock h/, i/	Compaction Potential j/
St. Lucie	21	Lawnwood and Myakka sands	110.01	110.78	0.77	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	40	Samsula muck, depressional	110.40	110.40	b/	Not prime farmland	8	Low	Yes	No	> 60 in	High
St. Lucie	40	Samsula muck, depressional	110.70	110.70	b/	Not prime farmland	8	Low	Yes	No	> 60 in	High
St. Lucie	40	Samsula muck, depressional	110.78	110.83	0.05	Not prime farmland	8	Low	Yes	No	> 60 in	High
St. Lucie	21	Lawnwood and Myakka sands	110.83	110.85	0.02	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	8	Basinger sand	110.85	110.96	0.11	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	36	Pople sand	110.96	111.02	0.06	Not prime farmland	1	Low	No	No	> 60 in	Moderate
St. Lucie	31	Pepper and EauGallie sands	111.00	111.00	b/	Farmland of unique importance	1	Low	No	No	> 60 in	Moderate
St. Lucie	55	Winder loamy sand	111.02	111.05	0.03	Not prime farmland	1	Low	Yes	No	> 60 in	High
St. Lucie	31	Pepper and EauGallie sands	111.05	111.14	0.09	Farmland of unique importance	1	Low	No	No	> 60 in	Moderate
St. Lucie	38	Riviera fine sand	111.14	111.21	0.07	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
St. Lucie	31	Pepper and EauGallie sands	111.21	111.37	0.16	Farmland of unique importance	1	Low	No	No	> 60 in	Moderate
St. Lucie	48	Wabasso sand	111.37	111.66	0.29	Farmland of unique importance	1	Low	Yes	No	14 in	High
St. Lucie	31	Pepper and EauGallie sands	111.66	111.72	0.06	Farmland of unique importance	1	Low	No	No	> 60 in	Moderate
St. Lucie	48	Wabasso sand	111.72	111.81	0.09	Farmland of unique importance	1	Low	Yes	No	14 in	High
St. Lucie	21	Lawnwood and Myakka sands	111.80	111.80	b/	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	21	Lawnwood and Myakka sands	111.81	111.85	0.04	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	48	Wabasso sand	111.85	112.15	0.30	Farmland of unique importance	1	Low	Yes	No	14 in	High
St. Lucie	21	Lawnwood and Myakka sands	112.00	112.00	b/	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	21	Lawnwood and Myakka sands	112.15	112.16	0.01	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	48	Wabasso sand	112.16	112.32	0.16	Farmland of unique importance	1	Low	Yes	No	14 in	High
St. Lucie	21	Lawnwood and Myakka sands	112.32	112.40	0.08	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	48	Wabasso sand	112.40	112.88	0.48	Farmland of unique importance	1	Low	Yes	No	14 in	High
St. Lucie	21	Lawnwood and Myakka sands	112.80	112.80	b/	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	21	Lawnwood and Myakka sands	112.88	113.19	0.31	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	36	Pople sand	113.19	113.21	0.02	Not prime farmland	1	Low	No	No	> 60 in	Moderate
St. Lucie	21	Lawnwood and Myakka sands	113.21	113.28	0.07	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	36	Pople sand	113.28	113.32	0.04	Not prime farmland	1	Low	No	No	> 60 in	Moderate
St. Lucie	49	Wabasso fine sand, gravelly substratum	113.32	113.44	0.12	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	56	Winder sand, shell substratum	113.44	113.50	0.06	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	49	Wabasso fine sand, gravelly substratum	113.50	113.61	0.11	Farmland of unique importance	1	Low	Yes	No	> 60 in	High

Notes:
a/ Approximate MP along the proposed pipeline rounded to the nearest 1/100th.
b/ These soil polygons within the pipeline construction area do not cross the pipeline centerline. The closest MP to the polygon is identified as the Start and End MP.
c/ There is no Prime farmland located within the FSC Project. Farmland of Unique Importance includes soils designated as such by the NRCS (SSURGO reference column "farmlndcl").
d/ WEGs were obtained from the NRCS Soil Data Mart. WEGs range from 1 to 8, with 1 being the highest potential for wind erosion, and 8 the lowest. Highly wind erodible soils include those in wind erodibility groups 1 or 2 (SSURGO reference column "weg").
e/ Water erosion potential was determined by averaging the K factor values of horizons of each soil type. Based on the average K factor, each soil type was grouped into a water erosion class of "Low", "Moderate", and "High". Highly water erodibile soils include those with water classified as highly erodible land.
f/ "Urban Land" and "Udorthents" map units do not have a NRCS designated hydric soil status. These map units were considered to be non-hydric soils. Map units comprised of complexes of hydric and non-hydric soil types were considered to be partially hydric.
g/ Droughty soils include those that meet droughty soils criteria (i.e., soils with sandy loam or coarser texture and are moderately to excessively well drained) (SSURGO reference column "texcl" and "drainagecl").
h/ No Stony/Rocky soils were identified along the FSC Project.
i/ Depth to bedrock is not defined by the NRCS for the "Pavement and Buildings" map unit. In these cases, a depth to bedrock of >60" was assigned, which is consistent with NRCS designations for other natural and fill soils in the Project area. Shallow bedrock include those that have lithic or paralithic bedrock within 60 inches or less of the soil surface (SSURGO and STATSGO reference column "rescind" and "resdept_r").
j/ Compaction potential was determined by drainage class. High compaction potential includes very poorly drained and poorly drained soils, moderate compaction potential includes somewhat poorly drained to moderately well drained soils, and low compaction potential includes well drained soils.

Table 7.2-2

Soil Types by County Impacted by the FSC Pipeline and Aboveground Facilities

County	Map Unit Symbol	Map Unit Name	MP Start a/	MP END a/	MP Length (Miles) a/	Prime Farmland or Farmland of Unique Importance c/	WEG d/	K Factor e/	Hydric f/	Droughty g/	Depth to Bedrock h/, i/	Compaction Potential j/
St. Lucie	48	Wabasso sand	113.60	113.60	b/	Farmland of unique importance	1	Low	Yes	No	14 in	High
St. Lucie	48	Wabasso sand	113.61	113.72	0.11	Farmland of unique importance	1	Low	Yes	No	14 in	High
St. Lucie	49	Wabasso fine sand, gravelly substratum	113.72	113.89	0.17	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	56	Winder sand, shell substratum	113.89	114.19	0.30	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
St. Lucie	38	Riviera fine sand	113.90	113.90	b/	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
St. Lucie	31	Pepper and EauGallie sands	114.19	114.32	0.13	Farmland of unique importance	1	Low	No	No	> 60 in	Moderate
St. Lucie	48	Wabasso sand	114.32	114.45	0.13	Farmland of unique importance	1	Low	Yes	No	14 in	High
St. Lucie	38	Riviera fine sand	114.45	114.48	0.03	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
St. Lucie	48	Wabasso sand	114.48	114.51	0.03	Farmland of unique importance	1	Low	Yes	No	14 in	High
St. Lucie	11	Chobee loamy sand, depressional	114.51	114.55	0.04	Not prime farmland	1	Low	No	No	> 60 in	High
St. Lucie	55	Winder loamy sand	114.55	114.71	0.16	Not prime farmland	1	Low	Yes	No	> 60 in	High
St. Lucie	16	Hilolo loamy sand	114.71	114.79	0.08	Farmland of unique importance	1	Low	No	No	> 60 in	High
St. Lucie	55	Winder loamy sand	114.79	114.89	0.10	Not prime farmland	1	Low	Yes	No	> 60 in	High
St. Lucie	13	Floridana sand, depressional	114.89	115.07	0.18	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
St. Lucie	5	Arents, 45 to 65 percent slopes	115.07	115.14	0.07	Not prime farmland	1	Low	Yes	No	> 60 in	High
St. Lucie	15	Hallandale sand	115.14	115.25	0.11	Farmland of unique importance	1	Low	No	Yes	> 60 in	Moderate
Martin	42	Hallandale sand	115.25	115.29	0.04	Farmland of unique importance	1	Low	No	No	> 60 in	High
Martin	48	Jupiter sand	115.29	115.46	0.17	Farmland of unique importance	1	Low	Yes	No	14 in	High
Martin	38	Floridana fine sand, depressional	115.40	115.40	b/	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Martin	38	Floridana fine sand, depressional	115.46	115.50	0.04	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Martin	47	Pinellas fine sand	115.50	115.79	0.29	Farmland of unique importance	1	Low	No	No	> 60 in	High
Martin	53	Udorthents, 0 to 35 percent slopes	115.70	115.70	b/	Not prime farmland	1	Low	No	No	> 60 in	Low
Martin	38	Floridana fine sand, depressional	115.79	116.39	0.60	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Martin	57	Chobee loamy sand, depressional	116.39	116.43	0.04	Farmland of unique importance	8	Moderate	Yes	No	> 60 in	High
Martin	47	Pinellas fine sand	116.43	116.50	0.07	Farmland of unique importance	1	Low	No	No	> 60 in	High
Martin	57	Chobee loamy sand, depressional	116.50	116.58	0.08	Farmland of unique importance	8	Moderate	Yes	No	> 60 in	High
Martin	47	Pinellas fine sand	116.58	116.66	0.08	Farmland of unique importance	1	Low	No	No	> 60 in	High
Martin	38	Floridana fine sand, depressional	116.66	117.31	0.65	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Martin	38	Floridana fine sand, depressional	116.70	116.70	b/	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Martin	48	Jupiter sand	117.30	117.30	b/	Farmland of unique importance	1	Low	Yes	No	14 in	High
Martin	48	Jupiter sand	117.31	117.83	0.52	Farmland of unique importance	1	Low	Yes	No	14 in	High

Notes:
a/ Approximate MP along the proposed pipeline rounded to the nearest 1/100th.
b/ These soil polygons within the pipeline construction area do not cross the pipeline centerline. The closest MP to the polygon is identified as the Start and End MP.
c/ There is no Prime farmland located within the FSC Project. Farmland of Unique Importance includes soils designated as such by the NRCS (SSURGO reference column "farmlndcl").
d/ WEGs were obtained from the NRCS Soil Data Mart. WEGs range from 1 to 8, with 1 being the highest potential for wind erosion, and 8 the lowest. Highly wind erodible soils include those in wind erodibility groups 1 or 2 (SSURGO reference column "weg").
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g/ Droughty soils include those that meet droughty soils criteria (i.e., soils with sandy loam or coarser texture and are moderately to excessively well drained) (SSURGO reference column "texcl" and "drainagecl").
h/ No Stony/Rocky soils were identified along the FSC Project.
i/ Depth to bedrock is not defined by the NRCS for the "Pavement and Buildings" map unit. In these cases, a depth to bedrock of >60" was assigned, which is consistent with NRCS designations for other natural and fill soils in the Project area. Shallow bedrock include those that have lithic or paralithic bedrock within 60 inches or less of the soil surface (SSURGO and STATSGO reference column "rescind" and "resdept_r").
j/ Compaction potential was determined by drainage class. High compaction potential includes very poorly drained and poorly drained soils, moderate compaction potential includes somewhat poorly drained to moderately well drained soils, and low compaction potential includes well drained soils.

FLORIDA SOUTHEAST CONNECTION

Table 7.2-2

Soil Types by County Impacted by the FSC Pipeline and Aboveground Facilities

County	Map Unit Symbol	Map Unit Name	MP Start a/	MP END a/	MP Length (Miles) a/	Prime Farmland or Farmland of Unique Importance c/	WEG d/	K Factor e/	Hydric f/	Droughty g/	Depth to Bedrock h/, i/	Compaction Potential j/
Martin	57	Chobee loamy sand, depressional	117.70	117.70	b/	Farmland of unique importance	8	Moderate	Yes	No	> 60 in	High
Martin	55	Basinger fine sand	117.83	118.10	0.27	Not prime farmland	1	Low	Yes	No	> 60 in	High
Martin	2	Lawnwood and Myakka fine sands	118.00	118.00	b/	Farmland of unique importance	1	Low	Yes	No	25 in	High
Martin	13	Placid and Basinger fine sands, depressional	118.10	118.12	0.02	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Martin	13	Placid and Basinger fine sands, depressional	118.10	118.10	b/	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Martin	55	Basinger fine sand	118.12	118.37	0.25	Not prime farmland	1	Low	Yes	No	> 60 in	High
Martin	40	Sanibel muck	118.37	118.37	b/	Not prime farmland	8	Low	Yes	No	> 60 in	High
Martin	55	Basinger fine sand	118.37	118.42	0.05	Not prime farmland	1	Low	Yes	No	> 60 in	High
Martin	40	Sanibel muck	118.40	118.40	b/	Not prime farmland	8	Low	Yes	No	> 60 in	High
Martin	4	Waveland and Immokalee fine sands	118.42	118.46	0.04	Farmland of unique importance	1	Low	No	No	40 in	High
Martin	6	Paola and St. Lucie sands, 0 to 8 percent slopes	118.46	118.93	0.47	Not prime farmland	1	Low	No	Yes	> 60 in	Low
Martin	78	Duette fine sand	118.93	118.98	0.05	Not prime farmland	1	Low	No	Yes	> 60 in	Moderate
Martin	4	Waveland and Immokalee fine sands	118.98	119.34	0.36	Farmland of unique importance	1	Low	No	No	40 in	High
Martin	35	Salerno sand	119.00	119.00	b/	Not prime farmland	8	Low	Yes	No	> 60 in	High
Polk	13	Samsula muck	119.00	119.00	b/	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Martin	73	Samsula muck	119.10	119.10	b/	Not prime farmland	8	Low	Yes	No	> 60 in	High
Martin	69	Hontoon muck	119.34	119.34	b/	Not prime farmland	8	Low	Yes	No	> 60 in	High
Martin	73	Samsula muck	119.34	119.53	0.19	Not prime farmland	8	Low	Yes	No	> 60 in	High
Martin	13	Placid and Basinger fine sands, depressional	119.53	119.58	0.05	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Martin	4	Waveland and Immokalee fine sands	119.58	119.86	0.28	Farmland of unique importance	1	Low	No	No	40 in	High
Martin	21	Pineda and Riviera fine sands	119.86	119.92	0.06	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
Martin	13	Placid and Basinger fine sands, depressional	119.90	119.90	b/	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Martin	4	Waveland and Immokalee fine sands	119.92	120.34	0.42	Farmland of unique importance	1	Low	No	No	40 in	High
Martin	13	Placid and Basinger fine sands, depressional	120.30	120.30	b/	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Martin	13	Placid and Basinger fine sands, depressional	120.34	120.71	0.37	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Martin	21	Pineda and Riviera fine sands	120.71	120.77	0.06	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
Martin	4	Waveland and Immokalee fine sands	120.77	121.19	0.42	Farmland of unique importance	1	Low	No	No	40 in	High
Martin	66	Holopaw fine sand	121.19	121.26	0.07	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
Martin	4	Waveland and Immokalee fine sands	121.26	121.36	0.10	Farmland of unique importance	1	Low	No	No	40 in	High
Martin	4	Waveland and Immokalee fine sands	121.30	121.30	b/	Farmland of unique importance	1	Low	No	No	40 in	High
Martin	13	Placid and Basinger fine sands, depressional	121.36	121.39	0.03	Farmland of unique importance	8	Low	Yes	No	> 60 in	High

Notes:
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Table 7.2-2

Soil Types by County Impacted by the FSC Pipeline and Aboveground Facilities

County	Map Unit Symbol	Map Unit Name	MP Start a/	MP END a/	MP Length (Miles) a/	Prime Farmland or Farmland of Unique Importance c/	WEG d/	K Factor e/	Hydric f/	Droughty g/	Depth to Bedrock h/, i/	Compaction Potential j/
Martin	4	Waveland and Immokalee fine sands	121.39	121.55	0.16	Farmland of unique importance	1	Low	No	No	40 in	High
Martin	13	Placid and Basinger fine sands, depressional	121.55	121.67	0.12	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Martin	4	Waveland and Immokalee fine sands	121.67	121.74	0.07	Farmland of unique importance	1	Low	No	No	40 in	High
Martin	55	Basinger fine sand	121.74	121.77	0.03	Not prime farmland	1	Low	Yes	No	> 60 in	High
Martin	13	Placid and Basinger fine sands, depressional	121.77	121.87	0.10	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Martin	55	Basinger fine sand	121.87	121.87	b/	Not prime farmland	1	Low	Yes	No	> 60 in	High
Martin	4	Waveland and Immokalee fine sands	121.87	122.30	0.43	Farmland of unique importance	1	Low	No	No	40 in	High
Martin	73	Samsula muck	122.30	122.41	0.11	Not prime farmland	8	Low	Yes	No	> 60 in	High
Martin	4	Waveland and Immokalee fine sands	122.41	122.73	0.32	Farmland of unique importance	1	Low	No	No	40 in	High
Martin	2	Lawnwood and Myakka fine sands	122.73	122.98	0.25	Farmland of unique importance	1	Low	Yes	No	25 in	High
Martin	13	Placid and Basinger fine sands, depressional	122.98	123.06	0.08	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Martin	55	Basinger fine sand	123.06	123.13	0.07	Not prime farmland	1	Low	Yes	No	> 60 in	High
Martin	2	Lawnwood and Myakka fine sands	123.10	123.10	b/	Farmland of unique importance	1	Low	Yes	No	25 in	High
Martin	13	Placid and Basinger fine sands, depressional	123.13	123.23	0.10	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Martin	2	Lawnwood and Myakka fine sands	123.20	123.20	b/	Farmland of unique importance	1	Low	Yes	No	25 in	High
Martin	47	Pinellas fine sand	123.23	123.30	0.07	Farmland of unique importance	1	Low	No	No	> 60 in	High
Martin	17	Wabasso sand	123.30	123.46	0.16	Farmland of unique importance	1	Low	No	No	> 60 in	High
Martin	13	Placid and Basinger fine sands, depressional	123.46	123.55	0.09	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Martin	47	Pinellas fine sand	123.55	123.59	0.04	Farmland of unique importance	1	Low	No	No	> 60 in	High
Martin	58	Gator and Tequesta mucks	123.59	123.65	0.06	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Martin	2	Lawnwood and Myakka fine sands	123.65	123.73	0.08	Farmland of unique importance	1	Low	Yes	No	25 in	High
Martin	4	Waveland and Immokalee fine sands	123.73	123.93	0.20	Farmland of unique importance	1	Low	No	No	40 in	High
Martin	66	Holopaw fine sand	123.93	123.99	0.06	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
Martin	4	Waveland and Immokalee fine sands	123.99	124.13	0.14	Farmland of unique importance	1	Low	No	No	40 in	High
Martin	58	Gator and Tequesta mucks	124.13	124.25	0.12	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Martin	66	Holopaw fine sand	124.20	124.20	b/	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
Martin	4	Waveland and Immokalee fine sands	124.25	124.44	0.19	Farmland of unique importance	1	Low	No	No	40 in	High
Martin	2	Lawnwood and Myakka fine sands	124.44	124.63	0.19	Farmland of unique importance	1	Low	Yes	No	25 in	High
Martin	13	Placid and Basinger fine sands, depressional	124.50	124.50	b/	Farmland of unique importance	8	Low	Yes	No	> 60 in	High
Martin	21	Pineda and Riviera fine sands	124.63	124.86	0.23	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
Martin	38	Floridana fine sand, depressional	124.86	125.05	0.19	Farmland of unique importance	8	Low	Yes	No	> 60 in	High

Notes:
a/ Approximate MP along the proposed pipeline rounded to the nearest 1/100th.
b/ These soil polygons within the pipeline construction area do not cross the pipeline centerline. The closest MP to the polygon is identified as the Start and End MP.
c/ There is no Prime farmland located within the FSC Project. Farmland of Unique Importance includes soils designated as such by the NRCS (SSURGO reference column "farmlndcl").
d/ WEGs were obtained from the NRCS Soil Data Mart. WEGs range from 1 to 8, with 1 being the highest potential for wind erosion, and 8 the lowest. Highly wind erodible soils include those in wind erodibility groups 1 or 2 (SSURGO reference column "weg").
e/ Water erosion potential was determined by averaging the K factor values of horizons of each soil type. Based on the average K factor, each soil type was grouped into a water erosion class of "Low", "Moderate", and "High". Highly water erodibile soils include those with water classified as highly erodible land.
f/ "Urban Land" and "Udorthents" map units do not have a NRCS designated hydric soil status. These map units were considered to be non-hydric soils. Map units comprised of complexes of hydric and non-hydric soil types were considered to be partially hydric.
g/ Droughty soils include those that meet droughty soils criteria (i.e., soils with sandy loam or coarser texture and are moderately to excessively well drained) (SSURGO reference column "texcl" and "drainagecl").
h/ No Stony/Rocky soils were identified along the FSC Project.
i/ Depth to bedrock is not defined by the NRCS for the "Pavement and Buildings" map unit. In these cases, a depth to bedrock of >60" was assigned, which is consistent with NRCS designations for other natural and fill soils in the Project area. Shallow bedrock include those that have lithic or paralithic bedrock within 60 inches or less of the soil surface (SSURGO and STATSGO reference column "rescind" and "resdept_r").
j/ Compaction potential was determined by drainage class. High compaction potential includes very poorly drained and poorly drained soils, moderate compaction potential includes somewhat poorly drained to moderately well drained soils, and low compaction potential includes well drained soils.

FLORIDA SOUTHEAST CONNECTION

Table 7.2-2

Soil Types by County Impacted by the FSC Pipeline and Aboveground Facilities

County	Map Unit Symbol	Map Unit Name	MP Start a/	MP END a/	MP Length (Miles) a/	Prime Farmland or Farmland of Unique Importance c/	WEG d/	K Factor e/	Hydric f/	Droughty g/	Depth to Bedrock h/, i/	Compaction Potential j/
Martin	21	Pineda and Riviera fine sands	125.05	125.11	0.06	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
Martin	4	Waveland and Immokalee fine sands	125.11	125.41	0.30	Farmland of unique importance	1	Low	No	No	40 in	High
Martin	21	Pineda and Riviera fine sands	125.41	125.53	0.12	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
Martin	2	Lawnwood and Myakka fine sands	125.53	125.72	0.19	Farmland of unique importance	1	Low	Yes	No	25 in	High
Martin	66	Holopaw fine sand	125.72	125.80	0.08	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
Martin	4	Waveland and Immokalee fine sands	125.80	125.87	0.07	Farmland of unique importance	1	Low	No	No	40 in	High
Martin	66	Holopaw fine sand	125.87	126.05	0.18	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
Martin	4	Waveland and Immokalee fine sands	126.00	126.00	b/	Farmland of unique importance	1	Low	No	No	40 in	High
Martin	2	Lawnwood and Myakka fine sands	126.05	126.15	0.10	Farmland of unique importance	1	Low	Yes	No	25 in	High
Martin	4	Waveland and Immokalee fine sands	126.15	126.59	0.44	Farmland of unique importance	1	Low	No	No	40 in	High
Martin	66	Holopaw fine sand	126.59	126.73	0.14	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
Martin Meter Station												
Martin	66	Holopaw fine sand	126.73	126.78	0.05	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
Martin	49	Riviera fine sand, depressional	126.78	126.82	0.04	Farmland of unique importance	1	Low	Yes	No	> 60 in	High
Martin	16	Oldsmar fine sand	126.82	126.82	b/	Farmland of unique importance	1	Low	No	No	> 60 in	High
Launcher Site												
Osceola	16	Immokalee fine sand	0.00	0.00	0.00	Not prime farmland	1	Low	No	No	> 60 in	High

Notes:
a/ Approximate MP along the proposed pipeline rounded to the nearest 1/100th.
b/ These soil polygons within the pipeline construction area do not cross the pipeline centerline. The closest MP to the polygon is identified as the Start and End MP.
c/ There is no Prime farmland located within the FSC Project. Farmland of Unique Importance includes soils designated as such by the NRCS (SSURGO reference column "farmlndcl").
d/ WEGs were obtained from the NRCS Soil Data Mart. WEGs range from 1 to 8, with 1 being the highest potential for wind erosion, and 8 the lowest. Highly wind erodible soils include those in wind erodibility groups 1 or 2 (SSURGO reference column "weg").
e/ Water erosion potential was determined by averaging the K factor values of horizons of each soil type. Based on the average K factor, each soil type was grouped into a water erosion class of “Low”, “Moderate”, and “High”. Highly water erodibile soils include those with water classified as highly erodible land.
f/ “Urban Land” and “Udorthents” map units do not have a NRCS designated hydric soil status. These map units were considered to be non-hydric soils. Map units comprised of complexes of hydric and non-hydric soil types were considered to be partially hydric.
g/ Droughty soils include those that meet droughty soils criteria (i.e., soils with sandy loam or coarser texture and are moderately to excessively well drained) (SSURGO reference column “texcl” and “drainagecl”).
h/ No Stony/Rocky soils were identified along the FSC Project.
i/ Depth to bedrock is not defined by the NRCS for the “Pavement and Buildings” map unit. In these cases, a depth to bedrock of >60” was assigned, which is consistent with NRCS designations for other natural and fill soils in the Project area. Shallow bedrock include those that have lithic or paralithic bedrock within 60 inches or less of the soil surface (SSURGO and STATSGO reference column “rescind” and “resdept_r”).
j/ Compaction potential was determined by drainage class. High compaction potential includes very poorly drained and poorly drained soils, moderate compaction potential includes somewhat poorly drained to moderately well drained soils, and low compaction potential includes well drained soils.

Appendix 7C

FLORIDA SOUTHEAST CONNECTION

FLORIDA SOUTHEAST CONNECTION PROJECT
WETLAND AND WATERBODY CONSTRUCTION AND MITIGATION PROCEDURES

FLORIDA SOUTHEAST CONNECTION PROJECT
WETLAND AND WATERBODY CONSTRUCTION AND MITIGATION PROCEDURES

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FLORIDA SOUTHEAST CONNECTION PROEJCT
WETLAND AND WATERBODY
CONSTRUCTION AND MITIGATION PROCEDURES

I. APPLICABILITY

A. Florida Southeast Connection ("FSC") intends to adopt FERC's Wetland and Waterbody Construction and Mitigation Procedures in its entirety. These adopted procedures will be referred to as FSC's Wetland and Waterbody Construction and Mitigation Procedures ("FSC Procedures"). The FSC Procedures identify baseline mitigation measures for minimizing the extent and duration of project-related disturbance on wetlands and waterbodies.

FSC does not intend to seek any variances to the measures in these FSC Procedures. However, if site-specific conditions arise that necessitate a variance, FSC will provide to The Director of the Office of Energy Projects (Director) a written variance request providing the following about the variance:

1. how the variance provides equal or better environmental protection;

2. why the variance is necessary because a portion of these Procedures is infeasible or unworkable based on project-specific conditions; or

3. that the variance is specifically required in writing by another federal, state, or Native American land management agency for the portion of the project on its land or under its jurisdiction.

FSC will request and receive written approval for any variances in advance of construction.

Project-related impacts on non-wetland areas are addressed in FSC's Upland Erosion Control, Revegetation, and Maintenance Plan (Plan).

B. DEFINITIONS

1. "Waterbody" includes any natural or artificial stream, river, or drainage with perceptible flow at the time of crossing, and other permanent waterbodies such as ponds and lakes:

a. "minor waterbody" includes all waterbodies less than or equal to 10 feet wide at the water's edge at the time of crossing;

b. "intermediate waterbody" includes all waterbodies greater than 10 feet wide but less than or equal to 100 feet wide at the water's edge at the time of crossing; and

c. "major waterbody" includes all waterbodies greater than 100 feet wide at the water's edge at the time of crossing.

2. "Wetland" includes any area that is not in actively cultivated or rotated cropland and that satisfies the requirements of the current federal methodology for identifying and delineating wetlands.

II. PRECONSTRUCTION FILING

A. FSC will file with the Secretary of the FERC (Secretary) prior to the beginning of construction, for the review and written approval by the Director:

1. site-specific justifications for extra work areas that would be closer than 50 feet from a waterbody or wetland; and

2. site-specific justifications for the use of a construction right-of-way greater than 75-feet-wide in wetlands.

B. FSC will file with the Secretary prior to the beginning of construction the following:

1. Spill Prevention and Response Procedures specified in section IV.A;

2. a schedule identifying when trenching or blasting will occur within each waterbody greater than 10 feet wide, within any designated coldwater fishery, and within any waterbody identified as habitat for federally-listed threatened or endangered species. FSC will revise the schedule as necessary to provide FERC staff at least 14 days advance notice. Changes within this last 14-day period will be provided for at least 48 hours advance notice;

3. plans for horizontal directional drills (HDD) under wetlands or waterbodies, specified in section V.B.6.d;

4. site-specific plans for major waterbody crossings, described in section V.B.9;

5. a wetland delineation report as described in section VI.A.1, if applicable; and

6. the hydrostatic testing information specified in section VII.B.3.

III. ENVIRONMENTAL INSPECTORS

A. At least one Environmental Inspector having knowledge of the wetland and waterbody conditions in the project area will be provided for each construction spread. The number and experience of Environmental Inspectors assigned to each construction spread shall be appropriate for the length of the construction spread and the number/significance of resources affected.

B. The Environmental Inspector's responsibilities are outlined in the Upland Erosion Control, Revegetation, and Maintenance Plan (Plan).

IV. PRECONSTRUCTION PLANNING

A. FSC will develop project-specific Spill Prevention and Response Procedures that meet applicable requirements of state and federal agencies. A copy will be filed with the Secretary prior to construction and made available in the field on each construction spread.

1. FSC and its contractors will structure operations in a manner that reduces the risk of spills or the accidental exposure of fuels or hazardous materials to waterbodies or wetlands. FSC and its contractors will, at a minimum, ensure that:

a. all employees handling fuels and other hazardous materials are properly trained;

b. all equipment is in good operating order and inspected on a regular basis;

c. fuel trucks transporting fuel to on-site equipment travel only on approved access roads;

d. all equipment is parked overnight and/or fueled at least 100 feet from a waterbody or in an upland area at least 100 feet from a wetland boundary. These activities can occur closer only if the Environmental Inspector determines that there is no reasonable alternative, and FSC and its contractors have taken appropriate steps (including secondary containment structures) to prevent spills and provide for prompt cleanup in the event of a spill;

e. hazardous materials, including chemicals, fuels, and lubricating oils, are not stored within 100 feet of a wetland, waterbody, or designated municipal watershed area, unless the location is designated for such use by an appropriate governmental authority. This applies to storage of these materials and does not apply to normal operation or use of equipment in these areas;

f. concrete coating activities are not performed within 100 feet of a wetland or waterbody boundary, unless the location is an existing industrial site designated for such use. These activities can occur closer only if the Environmental Inspector determines that there is no reasonable alternative, and FSC and its contractors have taken appropriate steps (including secondary containment structures) to prevent spills and provide for prompt cleanup in the event of a spill;

g. pumps operating within 100 feet of a waterbody or wetland boundary utilize appropriate secondary containment systems to prevent spills; and

h. bulk storage of hazardous materials, including chemicals, fuels, and lubricating oils have appropriate secondary containment systems to prevent spills.

2. FSC and its contractors will structure operations in a manner that provides for the prompt and effective cleanup of spills of fuel and other hazardous materials. At a minimum, FSC and its contractors will:

   a. ensure that each construction crew (including cleanup crews) has on hand sufficient supplies of absorbent and barrier materials to allow the rapid containment and recovery of spilled materials and knows the procedure for reporting spills and unanticipated discoveries of contamination;

   b. ensure that each construction crew has on hand sufficient tools and material to stop leaks;

   c. know the contact names and telephone numbers for all local, state, and federal agencies (including, if necessary, the U. S. Coast Guard and the National Response Center) that must be notified of a spill; and

   d. follow the requirements of those agencies in cleaning up the spill, in excavating and disposing of soils or other materials contaminated by a spill, and in collecting and disposing of waste generated during spill cleanup.

B. AGENCY COORDINATION

FSC will coordinate with the appropriate local, state, and federal agencies as outlined in these Procedures and in the FERC's Orders.

V. WATERBODY CROSSINGS

A. NOTIFICATION PROCEDURES AND PERMITS

1. FSC will apply to the U.S. Army Corps of Engineers (COE), or its delegated agency, for the appropriate wetland and waterbody crossing permits.

2. FSC will provide written notification to authorities responsible for potable surface water supply intakes located within 3 miles downstream of the crossing at least 1 week before beginning work in the waterbody, or as otherwise specified by that authority.

3. FSC will apply for state-issued waterbody crossing permits and obtain individual or generic section 401 water quality certification or waiver.

4. FSC will notify appropriate federal and state authorities at least 48 hours before beginning trenching or blasting within the waterbody, or as specified in applicable permits.

B. INSTALLATION

1. Time Window for Construction

Unless expressly permitted or further restricted by the appropriate federal or state agency in writing on a site-specific basis, in-stream work, except that required to install or remove equipment bridges, will occur during the following time windows:

a. coldwater fisheries - June 1 through September 30; and

b. coolwater and warmwater fisheries - June 1 through November 30.

2. Extra Work Areas

a. FSC will locate all extra work areas (such as staging areas and additional spoil storage areas) at least 50 feet away from water's edge, except where the adjacent upland consists of cultivated or rotated cropland or other disturbed land.

b. FSC will file with the Secretary for review and written approval by the Director, site-specific justification for each extra work area with a less than 50-foot setback from the water's edge, except where the adjacent upland consists of cultivated or rotated cropland or other disturbed land. The justification will specify the conditions that will not permit a 50-foot setback and measures to ensure the waterbody is adequately protected.

c. FSC will limit the size of extra work areas to the minimum needed to construct the waterbody crossing.

3. General Crossing Procedures

a. FSC will comply with the COE, or its delegated agency, permit terms and conditions.

b. FSC will construct crossings as close to perpendicular to the axis of the waterbody channel as engineering and routing conditions permit.

c. Where pipelines parallel a waterbody, FSC will maintain at least 15 feet of undisturbed vegetation between the waterbody (and any adjacent wetland) and the construction right-of-way, except where maintaining this offset will result in greater environmental impact.

d. Where waterbodies meander or have multiple channels, FSC will route the pipeline to minimize the number of waterbody crossings.

e. FSC will maintain adequate waterbody flow rates to protect aquatic life, and prevent the interruption of existing downstream uses.

f. Waterbody buffers (e.g., extra work area setbacks, refueling restrictions) will be clearly marked in the field with signs and/or highly visible flagging until construction-related ground disturbing activities are complete.

g. Crossing of waterbodies when they are dry or frozen and not flowing will proceed using standard upland construction techniques in accordance with the Plan, provided that the Environmental Inspector verifies that water is unlikely to flow between initial disturbance and final stabilization of the feature. In the event of perceptible flow, FSC will comply with all applicable Procedure requirements for “waterbodies” as defined in section I.B.1.

4. Spoil Pile Placement and Control

   a. All spoil from minor and intermediate waterbody crossings, and upland spoil from major waterbody crossings, will be placed in the construction right-of-way at least 10 feet from the water's edge or in additional extra work areas as described in section V.B.2.

   b. Sediment barriers will be used to prevent the flow of spoil or silt-laden water into any waterbody.

5. Equipment Bridges

   a. Only clearing equipment and equipment necessary for installation of equipment bridges will be allowed to cross waterbodies prior to bridge installation. The number of such crossings of each waterbody will be limited to one per piece of clearing equipment.

   b. Equipment bridges will be constructed and maintained to allow unrestricted flow and to prevent soil from entering the waterbody. Examples of such bridges include:

      (1) equipment pads and culvert(s);
      (2) equipment pads or railroad car bridges without culverts;
      (3) clean rock fill and culvert(s); and
      (4) flexi-float or portable bridges.

      Additional options for equipment bridges may be utilized that achieve the performance objectives noted above. Soil will not be used to construct or stabilize equipment bridges.

   c. Each equipment bridge will be designed and maintained to withstand and pass the highest flow expected to occur while the bridge is in place. Culverts will be aligned to prevent bank erosion or streambed scour. If necessary, energy dissipating devices will be installed downstream of the culverts.

   d. Equipment bridges will be designed and maintained to prevent soil from entering the waterbody.

   e. Temporary equipment bridges will be removed as soon as practicable after permanent seeding.

   f. If there will be more than 1 month between final cleanup and the beginning of permanent seeding and reasonable alternative access to the right-of-way is available, temporary equipment bridges will be removed as soon as practicable after final cleanup.

g. Any necessary approval from the COE, or the appropriate state agency will be obtained for permanent bridges.

6. Dry-Ditch Crossing Methods

a. Unless approved otherwise by the appropriate federal or state agency, the pipeline will be installed using one of the dry-ditch methods outlined below for crossings of waterbodies up to 30 feet wide (at the water's edge at the time of construction) that are state-designated as either coldwater or significant coolwater or warmwater fisheries, or federally-designated as critical habitat.

b. Dam and Pump

(1) The dam-and-pump method may be used for crossings of waterbodies where pumps can adequately transfer streamflow volumes around the work area, and there are no concerns about sensitive species passage.

(2) Implementation of the dam-and-pump crossing method will meet the following performance criteria:

(i) use sufficient pumps, including on-site backup pumps, to maintain downstream flows;
(ii) construct dams with materials that prevent sediment and other pollutants from entering the waterbody (e.g., sandbags or clean gravel with plastic liner);
(iii) screen pump intakes to minimize entrainment of fish;
(iv) prevent streambed scour at pump discharge; and
(v) continuously monitor the dam and pumps to ensure proper operation throughout the waterbody crossing.

c. Flume Crossing

The flume crossing method requires implementation of the following steps:

(1) install flume pipe after blasting (if necessary), but before any trenching;

(2) use sand bag or sand bag and plastic sheeting diversion structure or equivalent to develop an effective seal and to divert stream flow through the flume pipe (some modifications to the stream bottom may be required to achieve an effective seal);

(3) properly align flume pipe(s) to prevent bank erosion and streambed scour;

(4) do not remove flume pipe during trenching, pipelaying, or backfilling activities, or initial streambed restoration efforts; and

(5) remove all flume pipes and dams that are not also part of the equipment bridge as soon as final cleanup of the stream bed and bank is complete.

d. Horizontal Directional Drill

For each waterbody or wetland that would be crossed using the HDD method, FSC will file with the Secretary for the review and written approval by the Director, a plan that includes:

(1) site-specific construction diagrams that show the location of mud pits, pipe assembly areas, and all areas to be disturbed or cleared for construction;

(2) justification that disturbed areas are limited to the minimum needed to construct the crossing;

(3) identification of any aboveground disturbance or clearing between the HDD entry and exit workspaces during construction;

(4) a description of how an inadvertent release of drilling mud would be contained and cleaned up; and

(5) a contingency plan for crossing the waterbody or wetland in the event the HDD is unsuccessful and how the abandoned drill hole would be sealed, if necessary.

7. Crossings of Minor Waterbodies

Where a dry-ditch crossing is not required, minor waterbodies may be crossed using the open-cut crossing method, with the following restrictions:

a. except for blasting and other rock breaking measures, instream construction activities (including trenching, pipe installation, backfill, and restoration of the streambed contours) will be completed within 24 hours. Streambanks and unconsolidated streambeds may require additional restoration after this period;

b. use of equipment operating in the waterbody will be limited to that needed to construct the crossing; and

c. equipment bridges are not required at minor waterbodies that do not have a state-designated fishery classification or protected status (e.g., agricultural or intermittent drainage ditches). However, if an equipment bridge is used it will be constructed as described in section V.B.5.

8. Crossings of Intermediate Waterbodies

Where a dry-ditch crossing is not required, intermediate waterbodies will be crossed using the open-cut crossing method, with the following restrictions:

a. instream construction activities (not including blasting and other rock breaking measures) will be completed within 48 hours, unless site-specific conditions make completion within 48 hours infeasible;

b. use of equipment operating in the waterbody will be limited to that needed to construct the crossing; and

c. all other construction equipment will cross on an equipment bridge as specified in section V.B.5.

9. Crossings of Major Waterbodies

Before construction, FSC will file with the Secretary for the review and written approval by the Director a detailed, site-specific construction plan and scaled drawings identifying all areas to be disturbed by construction for each major waterbody crossing (the scaled drawings are not required for any offshore portions of pipeline projects). This plan will be developed in consultation with the appropriate state and federal agencies and shall include extra work areas, spoil storage areas, sediment control structures, etc., as well as mitigation for navigational issues.

The Environmental Inspector may adjust the final placement of the erosion and sediment control structures in the field to maximize effectiveness.

10. Temporary Erosion and Sediment Control

Sediment barriers (as defined in section IV.F.3.a of the Plan) will be installed immediately after initial disturbance of the waterbody or adjacent upland. Sediment barriers will be properly maintained throughout construction and reinstalled as necessary (such as after backfilling of the trench) until replaced by permanent erosion controls or restoration of adjacent upland areas is complete. Temporary erosion and sediment control measures are addressed in more detail in the Plan; however, the following specific measures will be implemented at stream crossings:

a. sediment barriers will be installed across the entire construction right-of-way at all waterbody crossings, where necessary to prevent the flow of sediments into the waterbody. Removable sediment barriers (or driveable berms) will be installed across the travel lane. These removable sediment barriers can be removed during the construction day, but will be re-installed after construction has stopped for the day and/or when heavy precipitation is imminent;

b. where waterbodies are adjacent to the construction right-of-way and the right-of-way slopes toward the waterbody, sediment barriers will be installed along the edge of the construction right-of-way as necessary to contain spoil within the construction right-of-way and prevent sediment flow into the waterbody; and

c. temporary trench plugs will be used at all waterbody crossings, as necessary, to prevent diversion of water into upland portions of the pipeline trench and to keep any accumulated trench water out of the waterbody.

11. Trench Dewatering

The trench will be dewatered (either on or off the construction right-of-way) in a manner that does not cause erosion and does not result in silt-laden water flowing into any waterbody. The dewatering structures will be removed as soon as practicable after the completion of dewatering activities.

C. RESTORATION

1. Clean gravel or native cobbles will be used for the upper 1 foot of trench backfill in all waterbodies that contain coldwater fisheries.

2. For open-cut crossings, waterbody banks will be stabilized and temporary sediment barriers will be installed within 24 hours of completing instream construction activities. For dry-ditch crossings, streambed and bank stabilization will be completed before returning flow to the waterbody channel.

3. All waterbody banks will be returned to preconstruction contours or to a stable angle of repose as approved by the Environmental Inspector.

4. Erosion control fabric or a functional equivalent will be installed on waterbody banks at the time of final bank recontouring. Synthetic monofilament mesh/netted erosion control materials in areas designated as sensitive wildlife habitat will not be used unless the product is specifically designed to minimize harm to wildlife. Erosion control fabric will be anchored with staples or other appropriate devices.

5. Application of riprap for bank stabilization will comply with COE, or its delegated agency, permit terms and conditions.

6. Unless otherwise specified by state permit, the use of riprap will be limited to areas where flow conditions preclude effective vegetative stabilization techniques such as seeding and erosion control fabric.

7. Disturbed riparian areas will be revegetated with native species of conservation grasses, legumes, and woody species, similar in density to adjacent undisturbed lands.

8. A permanent slope breaker will be installed across the construction right-of-way at the base of slopes greater than 5 percent that are less than 50 feet from the waterbody, or as needed to prevent sediment transport into the waterbody. In addition, sediment barriers will be installed as outlined in the Plan.

   In some areas, with the approval of the Environmental Inspector, an earthen berm may be suitable as a sediment barrier adjacent to the waterbody.

9. Sections V.C.3 through V.C.7 above also apply to those perennial or intermittent streams not flowing at the time of construction.

D. POST-CONSTRUCTION MAINTENANCE

1. Routine vegetation mowing or clearing will be limited adjacent to waterbodies to allow a riparian strip at least 25 feet wide, as measured from the waterbody's mean high water mark, to permanently revegetate with native plant species across the entire construction right-of-way. However, to facilitate periodic corrosion/leak surveys, a corridor centered on the pipeline and up to 10 feet wide may be cleared at a frequency necessary to maintain the 10-foot corridor in an herbaceous state. In addition, trees that are located within 15 feet of the pipeline that have roots that could compromise the integrity of the pipeline coating will be cut and removed from the permanent right-of-way. No routine vegetation mowing or clearing will be conducted in riparian areas that are between HDD entry and exit points.

2. Herbicides or pesticides will not be used in or within 100 feet of a waterbody except as allowed by the appropriate land management or state agency.

3. Time of year restrictions specified in section VII.A.5 of the Plan (April 15 – August 1 of any year) apply to routine mowing and clearing of riparian areas.

VI. WETLAND CROSSINGS

A. GENERAL

1. FSC will conduct a wetland delineation using the current federal methodology and file a wetland delineation report with the Secretary before construction.

   This report will identify:

   a. by milepost all wetlands that would be affected;

   b. the National Wetlands Inventory (NWI) classification for each wetland;

   c. the crossing length of each wetland in feet; and

   d. the area of permanent and temporary disturbance that would occur in each wetland by NWI classification type.

   The requirements outlined in this section do not apply to wetlands in actively cultivated or rotated cropland. Standard upland protective measures, including workspace and topsoiling requirements, apply to these agricultural wetlands.

2. The pipeline will be routed to avoid wetland areas to the maximum extent possible. If a wetland cannot be avoided or crossed by following an existing right-of-way, the new pipeline will be routed in a manner that minimizes disturbance to wetlands.

3. The width of the construction right-of-way will be limited to 75 feet or less. Prior written approval of the Director will be obtained where topographic conditions or soil limitations require that the construction right-of-way width within the boundaries of a federally delineated wetland be expanded beyond 75 feet. Early in the planning process FSC will identify site-specific areas where excessively wide trenches could occur and/or where spoil piles could be difficult to maintain because existing soils lack adequate unconfined compressive strength.

4. Wetland boundaries and buffers will be clearly marked in the field with signs and/or highly visible flagging until construction-related ground disturbing activities are complete.

5. In the event a waterbody crossing is located within or adjacent to a wetland crossing, FSC will implement the measures of sections V and VI. If all measures of sections V and VI cannot be met, FSC will file with the Secretary a site-specific crossing plan for review and written approval by the Director before construction. This crossing plan will address at a minimum:

   a. spoil control;

   b. equipment bridges;

   c. restoration of waterbody banks and wetland hydrology;

   d. timing of the waterbody crossing;

   e. method of crossing; and

   f. size and location of all extra work areas.

6. Aboveground facilities will not be located in any wetland, except where the location of such facilities outside of wetlands would prohibit compliance with U.S. Department of Transportation regulations.

B. INSTALLATION

1. Extra Work Areas and Access Roads

a. All extra work areas (such as staging areas and additional spoil storage areas) will be located at least 50 feet away from wetland boundaries, except where the adjacent upland consists of cultivated or rotated cropland or other disturbed land.

b. FSC will file with the Secretary for review and written approval by the Director, site-specific justification for each extra work area with a less than 50-foot setback from wetland boundaries, except where adjacent upland consists of cultivated or rotated cropland or other disturbed land. The justification will specify the site-specific conditions that will not permit a 50-foot setback and measures to ensure the wetland is adequately protected.

c. The construction right-of-way may be used for access when the wetland soil is firm enough to avoid rutting or the construction right-of-way has been appropriately stabilized to avoid rutting (e.g., with timber riprap, prefabricated equipment mats, or terra mats).

In wetlands that cannot be appropriately stabilized, all construction equipment other than that needed to install the wetland crossing shall use access roads located in upland areas. Where access roads in upland areas do not provide reasonable access, limit all other construction equipment to one pass through the wetland using the construction right-of-way.

d. The only access roads, other than the construction right-of-way, that may be used in wetlands are those existing roads that can be used with no modifications or improvements, other than routine repair, and no impact on the wetland.

2. Crossing Procedures

a. FSC will comply with COE, or its delegated agency, permit terms and conditions.

b. FSC will assemble the pipeline in an upland area unless the wetland is dry enough to adequately support skids and pipe.

c. FSC will use “push-pull” or “float” techniques to place the pipe in the trench where water and other site conditions allow.

d. FSC will minimize the length of time that topsoil is segregated and the trench is open. The wetland will not be trenched until the pipeline is assembled and ready for lowering in.

e. Construction equipment operating in wetland areas will be limited to that needed to clear the construction right-of-way, dig the trench, fabricate and install the pipeline, backfill the trench, and restore the construction right-of-way.

f. Vegetation will be cut just above ground level, leaving existing root systems in place, and removed from the wetland for disposal.

FSC may burn woody debris in wetlands, if approved by the COE and in accordance with state and local regulations, ensuring that all remaining woody debris is removed for disposal.

g. Pulling of tree stumps and grading activities will be limited to directly over the trenchline. Stumps or root systems will not be removed or degraded from the rest of the construction right-of-way in wetlands unless the Chief Inspector and Environmental Inspector determine that safety-related construction constraints require grading or the removal of tree stumps from under the working side of the construction right-of-way.

h. The top 1 foot of topsoil will be segregated from the area disturbed by trenching, except in areas where standing water is present or soils are saturated. Immediately after backfilling is complete, the segregated topsoil will be restored to its original location.

i. Rock, soil imported from outside the wetland, tree stumps, or brush riprap will not be used to support equipment on the construction right-of-way.

j. If standing water or saturated soils are present, or if construction equipment causes ruts or mixing of the topsoil and subsoil in wetlands, low-ground-weight construction equipment will be used, or normal equipment will be operated on timber riprap, prefabricated equipment mats, or terra mats.

k. All project-related material used to support equipment on the construction right-of-way will be removed upon completion of construction.

3. Temporary Sediment Control

Sediment barriers (as defined in section IV.F.3.a of the Plan) will be installed immediately after initial disturbance of the wetland or adjacent upland. Sediment barriers will be properly maintained throughout construction and reinstalled as necessary (such as after backfilling of the trench). Except as noted below in section VI.B.3.c, sediment barriers will be maintained until replaced by permanent erosion controls or restoration of adjacent upland areas is complete. Temporary erosion and sediment control measures are addressed in more detail in the Plan.

a. Sediment barriers will be installed across the entire construction right-of-way immediately upslope of the wetland boundary at all wetland crossings where necessary to prevent sediment flow into the wetland.

b. Where wetlands are adjacent to the construction right-of-way and the right-of-way slopes toward the wetland, sediment barriers will be installed along the edge of the construction right-of-way as necessary to contain spoil within the construction right-of-way and prevent sediment flow into the wetland.

c. Sediment barriers will be installed along the edge of the construction right-of-way as necessary to contain spoil and sediment within the construction right-of-way through wetlands. These sediment barriers will be removed during right-of-way cleanup.

4. Trench Dewatering

The trench (either on or off the construction right-of-way) will be dewatered in a manner that does not cause erosion and does not result in silt-laden water flowing into any wetland. The dewatering structures will be removed as soon as practicable after the completion of dewatering activities.

C. RESTORATION

1. Where the pipeline trench may drain a wetland, trench breakers will be constructed at the wetland boundaries and/or the trench bottom will be sealed as necessary to maintain the original wetland hydrology.

2. Pre-construction wetland contours will be restored to maintain the original wetland hydrology.

3. For each wetland crossed, a trench breaker will be installed at the base of slopes near the boundary between the wetland and adjacent upland areas. A permanent slope breaker will be installed across the construction right-of-way at the base of slopes greater than 5 percent where the base of the slope is less than 50 feet from the wetland, or as needed to prevent sediment transport into the wetland. In addition, sediment barriers will be installed as outlined in the Plan. In some areas, with the approval of the Environmental Inspector, an earthen berm may be suitable as a sediment barrier adjacent to the wetland.

4. Fertilizer, lime, or mulch will not be used unless required in writing by the appropriate federal or state agency.

5. FSC will consult with the appropriate federal or state agencies to develop a project-specific wetland restoration plan. The restoration plan will include measures for re-establishing herbaceous and/or woody species, controlling the invasion and spread of invasive species and noxious weeds (e.g., purple loosestrife and phragmites), and monitoring the success of the revegetation and weed control efforts. This plan will be provided to the FERC staff upon request.

6. Until a project-specific wetland restoration plan is developed and/or implemented, the construction right-of-way will be temporarily revegetated with annual ryegrass at a rate of 40 pounds/acre (unless standing water is present).

7. All disturbed areas will be successfully revegetated with wetland herbaceous and/or woody plant species.

8. Temporary sediment barriers located at the boundary between wetland and adjacent upland areas will be removed after revegetation and stabilization of adjacent upland areas are judged to be successful as specified in section VII.A.4 of the Plan.

D. POST-CONSTRUCTION MAINTENANCE AND REPORTING

1. Routine vegetation mowing or clearing will not be conducted over the full width of the permanent right-of-way in wetlands. However, to facilitate periodic corrosion/leak surveys, a corridor centered on the pipeline and up to 10 feet wide may be cleared at a frequency necessary to maintain the 10-foot corridor in an herbaceous state. In addition, trees within 15 feet of the pipeline with roots that could compromise the integrity of pipeline coating will be selectively cut and removed from the permanent right-of-way. No routine vegetation mowing or clearing in wetlands that are between HDD entry and exit points will occur.

2. Herbicides or pesticides will not be used in or within 100 feet of a wetland, except as allowed by the appropriate federal or state agency.

3. Time of year restrictions specified in section VII.A.5 of the Plan (April 15 – August 1 of any year) apply to routine mowing and clearing of wetland areas.

4. Monitoring and recording the success of wetland revegetation will be conducted annually until wetland revegetation is successful.

5. Wetland revegetation will be considered successful if all of the following criteria are satisfied:

   a. the affected wetland satisfies the current federal definition for a wetland (i.e., soils, hydrology, and vegetation);

   b. vegetation is at least 80 percent of either the cover documented for the wetland prior to construction, or at least 80 percent of the cover in adjacent wetland areas that were not disturbed by construction;

   c. if natural rather than active revegetation was used, the plant species composition is consistent with early successional wetland plant communities in the affected ecoregion; and

   d. invasive species and noxious weeds are absent, unless they are abundant in adjacent areas that were not disturbed by construction.

6. Within 3 years after construction, a report will be filed with the Secretary identifying the status of the wetland revegetation efforts and documenting success as defined in section VI.D.5, above.

   For any wetland where revegetation is not successful at the end of 3 years after construction, a remedial revegetation plan will be developed and implemented (in consultation with a professional wetland ecologist) to actively revegetate wetlands. Revegetation efforts will be continued and a report filed annually documenting progress in these wetlands until wetland revegetation is successful.

VII. <u>HYDROSTATIC TESTING</u>

A. NOTIFICATION PROCEDURES AND PERMITS

1. FSC will apply for state-issued water withdrawal permits, as required.

2. FSC will apply for National Pollutant Discharge Elimination System (NPDES) or state-issued discharge permits, as required.

3. FSC will notify appropriate state agencies of intent to use specific sources at least 48 hours before testing activities unless they waive this requirement in writing.

B. GENERAL

1. FSC will perform 100 percent radiographic inspection of all pipeline section welds or hydrotest the pipeline sections, before installation under waterbodies or wetlands.

2. If pumps used for hydrostatic testing are within 100 feet of any waterbody or wetland, FSC will address secondary containment and refueling of these pumps in the project's Spill Prevention and Response Procedures.

3. FSC will file with the Secretary before construction a list identifying the location of all waterbodies proposed for use as a hydrostatic test water source or discharge location.

C. INTAKE SOURCE AND RATE

1. The intake hose will be screened to minimize the potential for entrainment of fish.

2. State-designated exceptional value waters, waterbodies which provide habitat for federally listed threatened or endangered species, or waterbodies designated as public water supplies, will not be used unless appropriate federal, state, and/or local permitting agencies grant written permission.

3. Adequate flow rates will be maintained to protect aquatic life, provide for all waterbody uses, and provide for downstream withdrawals of water by existing users.

4. Hydrostatic test manifolds will be located outside wetlands and riparian areas to the maximum extent practicable.

D. DISCHARGE LOCATION, METHOD, AND RATE

1. Discharge rate, will be regulated using energy dissipation device(s), and installed sediment barriers, as necessary, to prevent erosion, streambed scour, suspension of sediments, or excessive streamflow.

2. No discharge will occur into state-designated exceptional value waters, waterbodies which provide habitat for federally listed threatened or endangered species, or waterbodies designated as public water supplies, unless appropriate federal, state, and local permitting agencies grant written permission.

Appendix 7D

FLORIDA SOUTHEAST CONNECTION PROJECT
SPILL CONTROL PLAN

FLORIDA SOUTHEAST CONNECTION PROJECT
SPILL CONTROL PLAN

Preventative Measures

This Spill Control Plan addresses actions used to prevent spills in addition to specifying actions that will be taken should any spills occur, including emergency notification procedures.

Training

FSC's contractor will instruct personnel on the operation and maintenance of equipment to prevent the accidental discharge or spill of fuel, oil, and lubricants. Personnel will also be made aware of the pollution control laws, rules, and regulations applicable to their work.

Spill prevention briefings with the construction crew will be scheduled and conducted to insure adequate understanding of spill prevention measures. These briefings will highlight:

- precautionary measures to prevent spills;
- potential sources of spills, such as equipment failure or malfunction;
- standard operating procedures in case of a spill;
- equipment, materials, and supplies available for clean-up of a spill; and
- a list of known spill events.

Equipment Inspection / Maintenance

FSC's contractor will inspect and maintain equipment that must be fueled and/or lubricated according to a strict schedule. FSC's contractor will submit to FSC for approval written documentation of the methods used and work performed.

All containers, valves, pipelines, and hoses will be examined regularly to assess their general condition. The examination will identify any signs of deterioration that could cause a spill and signs of leaks, such as accumulated fluids. All leaks will be promptly corrected and/or repaired.

Refueling

Refueling Operations

FSC's contractor will insure that equipment is refueled and lubricated within the ROW and at least 100 feet away from all waterbodies and wetlands with the following exceptions:

- areas where removing equipment from a wetland for servicing would increase adverse impacts to the wetland;
- sites where moving equipment to refueling stations from pre-fabricated equipment pads is impracticable or where there is a barrier from the waterbody/wetland (i.e., road or railroad);
- locations where the waterbody or wetland is located adjacent to a road crossing (from which the equipment can be serviced); and
- refueling of immobile equipment including, but not limited to, bending and boring machines, air compressors, padding machines, and hydro-test fill pumps.

In these areas, auxiliary fuel tanks will be used to reduce the frequency of refueling operations and in no case will refueling take place within 100 feet of any known potable water wells.

FSC's contractor will assure that all refueling is done pursuant to the following conditions:

- Impact minimization measures and equipment will be sufficient to prevent discharged fluids from leaving the ROW or reaching wetlands or waterbodies, and be readily available for use. These will include some combination of the following:
    a. dikes, berms or retaining walls sufficiently impervious to contain spilled oil;
    b. sorbent and barrier materials in quantities determined by the Contractor to be sufficient to capture the largest reasonably foreseeable spill;
    c. drums or containers suitable for holding and transporting contaminated materials;
    d. curbing;
    e. culverts, gutters, or other drainage systems;
    f. weirs, booms, or other barriers;
    g. spill diversion or retention ponds; and
    h. sumps and collection systems.
- FSC's contractor will prepare for approval by FSC a list of the type, quantity, and the storage location of containment and clean up equipment to be used during construction.
- All spills will be cleaned up immediately. Containment equipment will not be used for storing contaminated material.

Storage

Storage containment areas will not have drains, unless such drains lead to a containment area or vessel where the entire spill can be recovered. Hazardous materials shall not be stored within 100 feet of any wetland or waterbody.

Personnel Support

Prior to construction, a written inventory of water wells within 150 feet of the construction work area will be prepared. The authorities of all potable water supply intakes located within three miles downstream of any crossings will be notified a minimum of one week prior to construction.

Impact Minimization Measures

Containment is the immediate priority in the case of a spill. A spill will be contained on the ROW, if possible. Clean up procedures will begin immediately after a spill is contained. In no case will containment equipment be used to store contaminated material.

In case of a spill, FSC's contractor and/or inspector will notify the construction supervisors, and FSC, and FCS will notify the FL DEP.

If FSC's contractor determines that a spill is small enough such that the construction crew can safely handle it, the crew will use construction equipment to containerize all spilled material, contaminated soil, and sorbent material in a manner consistent with the spilled materials' characterization.

If FSC's contractor determines that a spill cannot be adequately excavated and disposed of by the construction crew alone, the Contractor will contact waste containment specialists. FSC's contractor will ensure that all excavated wastes are transported to a disposal facility licensed to accept such wastes.

FSC's contractor will prepare a Construction Site Spill Report form to be given to the FSC that includes:

a. the date, time and location of the occurrence;
b. a description of the material spilled;
c. the quantity spilled;
d. the circumstances that caused the spill;
e. a list of waterbodies affected or potentially affected by the spill;
f. a statement verifying whether a sheen is present;
g. the size of the affected area;
h. an estimate of the depth that the material has reached in water or on soil;
I. a determination of whether the spill will migrate off of the ROW;
j. a determination of whether the spill is under control;
k. a statement verifying that clean-up has begun and a description of the methods being used to clean up the spill;
l. the names of the people observing the spill (with their affiliations); and
m. the Division "Report of Spill" form.

The National Response Center (1-800-424-8802) will be notified immediately if spills occur above threshold levels (Clean Water Act, 40 CFR 110.10) into surface waters and/or wetlands.

Suggested Equipment List

FSC's contractor will prepare a list of the type, quantity, and location of storage or containment and clean up equipment to be used on the construction site. The list will include the procedures and impact minimization measures to be used in response to a spill. FSC's contractor's choice of impact minimization measures and equipment will be tailored to meet the characteristics of the affected terrain as well as the types and amounts of material that could potentially be spilled.

Terrestrial Construction

General equipment that will be used for spill containment and cleanup on terrestrial areas includes:

- sorbents (pillows, socks, and wipe sheets) for containment and pick up of spilled liquids;
- commercially available spill kits (or the functional equivalent thereof) that are prepackaged, self-contained spill kits containing a variety of sorbents for small to large spills;
- structures such as gutters, culverts, and dikes for immediate spill containment;

- shovels, backhoes, etc., for excavating contaminated materials;
- sumps and collection systems; and
- drums, barrels, and temporary storage bags to clean up and transport contaminated materials.

Fuels and Lubricating Oil Storage

Containment equipment will be kept close to tanks and barrels to minimize spill response time, and will include absorbent pads or mats. The quantity and capabilities of the mats will be sufficient to capture the largest foreseeable spill, given ROW characteristics and crankcase and other fuel vessel capacities.

Routine Refueling and Maintenance

Absorbent pads and mats will be placed on the ground beneath equipment before refueling and maintenance. Equipment that will be stored on site for routine refueling and maintenance includes small sorbent kits (or their functional equivalent).

Equipment Failure

Kits with the capacity of absorbing up to five gallons of liquid can fit beneath the operator's seat on construction equipment for use in an equipment failure.

Waterbody and Wetland Crossings

For each wetland and waterbody crossed, the equipment listed below will be available in addition to that needed for terrestrial construction. This equipment will be stored close to the water or wetland to minimize response time, and will include:

- oil containment booms and the related equipment needed for rapid deployment, and
- equipment to remove oils from water, such as oleophilic and hydrophobic absorbent booms and mats, and/or mechanical skimmers.

FLORIDA SOUTHEAST CONNECTION

Appendix 7E

FLORIDA SOUTHEAST CONNECTION PROJECT
UNANTICIPATED HAZARDOUS WASTE
DISCOVERY PLAN

FLORIDA SOUTHEAST CONNECTION PROJECT
UNANTICIPATED HAZARDOUS WASTE
DISCOVERY PLAN

1. INTRODUCTION

Florida Southeast Connection, LLC has established the following procedures to be used in the event that previously unreported or unanticipated hazardous wastes or contaminated sites are discovered during construction and or operation of the FSC Project.

2. UNANTICIPATED DISCOVERY OF HAZARDOUS WASTE OF CONTAMINATED SITES RESPONSE

a. Contractor will stop work in the vicinity of the suspected contamination.

b. Contractor will cordon off or otherwise restrict access to the suspected area.

c. Contractor will immediately notify FSC's on-site Environmental Inspector.

d. FSC's on-site Environmental Inspector will immediately notify FSC's Environmental Services Department.

e. FSC will notify the landowner(s) of the suspected parcel(s).

3. IMPLEMENTATION PLAN (as deemed necessary by the FSC's Environmental Service Department)

a. Contact a qualified consultant and/or testing laboratory to assist with the determination of the extent and nature of the contamination.

b. Devise a plan for additional site-specific investigations as necessary.

c. Conduct the necessary level of site-specific testing and/or laboratory analysis to determine extent and nature of contamination.

d. Notify all applicable environmental authorities as required by law.

e. Devise a site-specific plan depending on the nature and extent of the contamination encountered for continuation of construction. This step may involve evaluation of avoidance options, exposure minimization options, or cleanup options as necessary to support the construction of the proposed facilities.

f. Devise a strategy or plan for handling wastes in an appropriate manner including waste characterization, hauling, manifesting, and disposal necessary to support continuing pipeline construction.

g. Devise a plan for site stabilization and backfilling.

h. Complete all required and necessary agency follow-ups and reporting.