



SR 400 (I-4) Project Development and Environment (PD&E) Study
FM No.: 432100-1-22-01



Contamination Screening Evaluation Report

**Segment 4: State Road 400 (SR 400)/Interstate 4 (I-4)
from East of SR 15-600/US 17-92 (Seminole/Volusia County Line)
to ½ Mile East of SR 472**

Volusia County (79110), Florida

July 2016



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1.0 Summary of Project

The Florida Department of Transportation (FDOT) is conducting an update/reevaluation of the Project Development and Environment (PD&E) studies for the extension of proposed express lanes for State Road 400 (SR 400)/Interstate 4 (I-4). The project limits in the original I-4 PD&E studies were:

- West of Memorial Boulevard (SR 546) to the Polk/Osceola County Line, (29.5 miles)
- CR 532 (Polk/Osceola County Line) to West of SR 528 Beachline Expressway (13.7 miles), and
- West of SR 528 Beachline Expressway to SR 472 (43 miles).

The corresponding environmental documents associated with these PD&E studies include: Environmental Assessment/Finding of No Significant Impact (EA/FONSI) for SR 400 (I-4) from West of Memorial Boulevard (SR 546) to the Polk/Osceola County Line [Financial Project Number (FPN) 201210 (December 1998)] and from CR 532 (Polk/Osceola County Line) to West of SR 528 (Beachline Expressway) [FPN 242526 and 242483 (December 1999)] and Final Environmental Impact Statement (FEIS) for I-4 from SR 528 (Beachline Expressway) to SR 472 [FPN 242486, 242592 and 242703 (August 2002, Record of Decision Pending)].

The project limits of the current SR 400 (I-4) PD&E reevaluation, herein referred to as I-4 Beyond the Ultimate (BtU) PD&E Reevaluation Study, include a total of approximately 43 miles of roadway sections east and west of the 21-mile, I-4 Ultimate project. The I-4 Ultimate project, which began construction in early 2015, is reconstruction to include new express lanes, of the section of I-4 which extends from west of SR 435 (Kirkman Road) to east of SR 434. For analysis purposes, the current I-4 BtU project, has been divided into the following five segments:

- Segment 1: SR 400 (I-4) from West of CR 532 (Polk/Osceola County Line) to West of SR 528 (Beachline Expressway) - Osceola County (92130) and Orange County (75280)
- Segment 2: SR 400 (I-4) from West of SR 528 (Beachline Expressway) to West of SR 435 (Kirkman Road) - Orange County (75280)
- Segment 3: SR 400 (I-4) from 1 Mile East of SR 434 to East of SR 15-600/US 17-92 (Seminole/Volusia County Line) - Seminole County (77160)
- Segment 4: SR 400 (I-4) from East of SR 15-600/US 17-92 (Seminole/Volusia County Line) to ½ Mile East of SR 472 - Volusia County (79110)
- Segment 5: SR 400 (I-4) from West of SR 25/US 27 to West of CR 532 (Polk/Osceola County Line) Polk County (16320)

Since no Record of Decision has been issued by the Federal Highway Administration (FHWA) for Segments 2, 3 and 4, the current PD&E BtU study for these three segments will update the original PD&E study. This contamination screening evaluation report was prepared for Segment 4 of the SR 400 (I-4) Beyond the Ultimate (BtU) PD&E Reevaluation Study and contains detailed information that fulfills the purpose and need for SR 400/I-4, from East of SR 15-600/US 17-92 (Seminole/Volusia County Line) to ½ Mile East of SR 472, PD&E study.

The purpose of this report is to document changes in support of the PD&E update for the I-4 BtU Segment 4 portion of the FEIS for I-4 from SR 528 (Beachline Expressway) to SR 472 (FPN 242486-1, 242592-1 and 242703-1, August 2002, Record of Decision Pending). This update includes environmental analysis of the original design concept, which showed six general use lanes (GULs) and two high occupancy vehicle (HOV) lanes (6+2), to the current proposed design, which includes six

GULs and four express lanes (EL) operating under a variable price toll plan (6+4). Other changes being reanalyzed include stormwater management, access plan and interchange configurations.

1.1 Description of Proposed Action

FDOT is proposing to reconstruct and widen I-4 as part of the I-4 BtU concept. This involves the build-out of I-4 to its ultimate condition through Central Florida, including segments in Polk, Osceola, Orange, Seminole and Volusia Counties. The concept design proposes the addition of two new express lanes in each direction, resulting in a total of ten dedicated lanes. The project limits for the segment analyzed in this report are within an approximate ten (10) mile segment of I-4 which extends from east of US 17/92 to east of SR 472, from Milepost 0.086 to 10.227 in Volusia County (herein referred to as I-4, Segment 4) and as shown in **Figure 1.1**. Although, the interstate is a designated east-west corridor, the alignment follows a southwest to northeast orientation through the limits of Segment 4. The study area in this section from east of US 17/92 to east of SR 472 includes the interchanges at Dirksen Drive/Debary Avenue, Saxon Boulevard and SR 472/Howland Boulevard. A new interchange with I-4 providing direct access only to the express lanes is proposed to be constructed about halfway between Saxon Boulevard and SR 472, with the Rhode Island Avenue extension.

The proposed improvements to I-4 include widening the existing six lane divided urban interstate to a ten lane divided highway. The existing typical section of the I-4 mainline consists of three 12-foot travel lanes in each direction. The outside and inside shoulders are 12 feet wide with 10 feet paved. The median width varies from 37 feet to 375 feet and the existing right of way (ROW) varies from 300 feet to 630 feet. The typical section in the proposed condition will have three 12-foot general use travel lanes with a 10-foot inside and 12-foot outside shoulder and two 12-foot express lanes with a 4-foot inside and 10-foot outside shoulder, in each direction. A barrier wall between adjacent 10-foot shoulders will separate the express lanes from the general use lanes. A 44' transit corridor will be provided in the median for the entire length of Segment 4 and, auxiliary lanes in both the eastbound and westbound directions will be provided in some areas. The I-4 existing and proposed typical sections are shown in Figure 1.2.



Figure 1 - Project Location Map

1.2 Purpose and Need

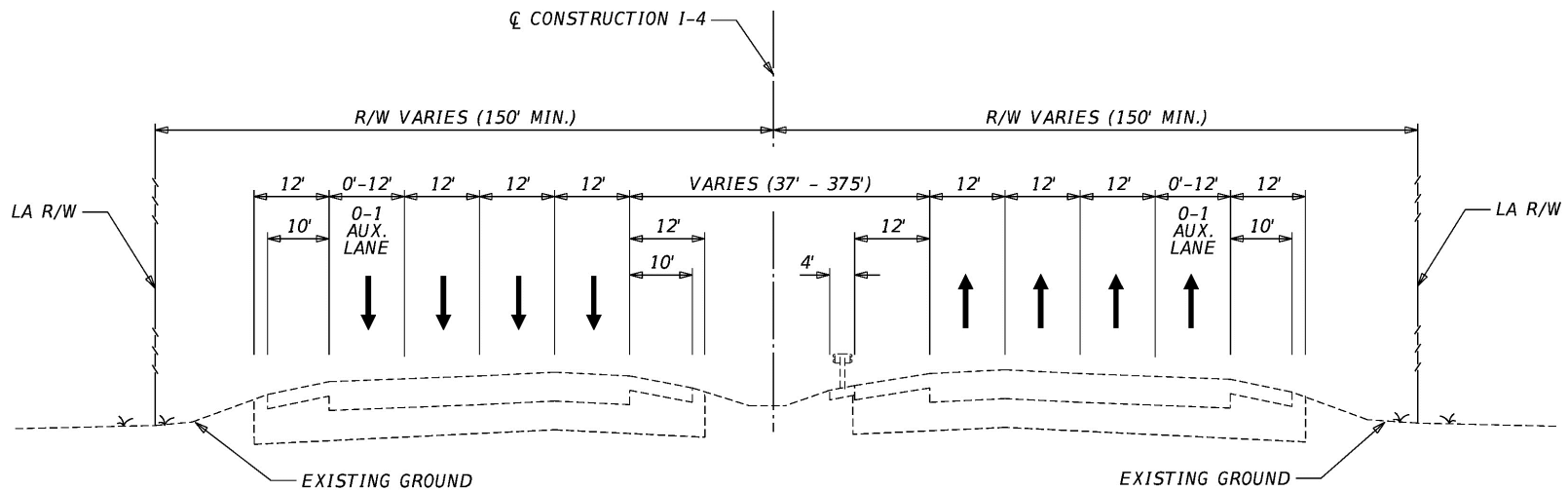
The proposed improvements to I-4 include widening the existing six lane divided urban interstate to a ten lane divided highway in order to improve traffic operations, enhance connectivity and improve mobility by providing travel choices to the motoring public. I-4 is an east-west limited access freeway which links the west and east coasts of Florida, from I-275 in Tampa to I-95 in Daytona Beach. I-4 spans across six counties in Central Florida, traversing many cities including Lakeland, Orlando, Altamonte Springs, Sanford and DeLand. I-4 is a critical component of Florida's Strategic Intermodal System (SIS) which links seaports, rail, airports and other intermodal facilities. This aspect of I-4's significance is evidenced through connectivity provided by major junctions with I-275 and I-75 in the Tampa Bay area, SR 429 (Daniel Webster Western Beltway), SR 417 (Southern Connector/Central Florida Greenway/Seminole Expressway), SR 528 (Martin Andersen Beachline Expressway), SR 91 (Florida's Turnpike), SR 408 (Spessard Lindsay Holland East-West Expressway) in Central Florida and I-95 on the east coast.

I-4 serves as the primary corridor in the movement of people and freight between major population, employment and activity centers in the Central Florida region. When the entire Interstate was fully opened in the early 1960's, it was designed to serve intrastate and interstate travel by providing a critical link between the east and west coasts of Central Florida. Although this role continues to be a crucial transportation function of I-4, the highway also serves large volumes of local and commuter traffic with shorter trip distances. Today, the highway serves as the primary link between hotel/resort complexes and tourist attractions such as Walt Disney World, Universal Studios, Sea World, the International Drive Resort Area and downtown Orlando. Since I-4 is the only north-south limited access facility that is centrally located between the predominant employment centers and the major suburbs to the north, it has become the primary commuting corridor in the Central Florida metropolitan area.

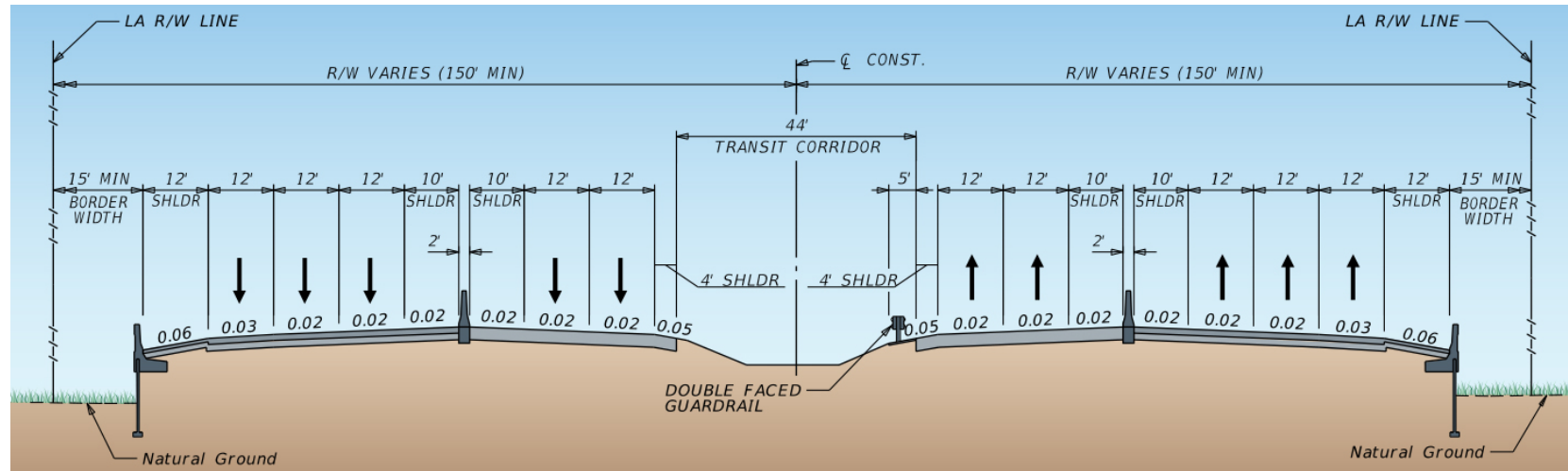
Growth in Central Florida over the past decades has made it difficult for the transportation system to accommodate travel demand. Traffic congestion and crash incidents have resulted in major delays on the Interstate as well as other arterials surrounding the corridor. Increased congestion levels are experienced outside of the typical morning and afternoon rush-hour periods, affecting mobility levels for more hours of the day and impacting other non-commuter/non-weekday travel. The congestion on I-4 is further evidenced by the less than desirable levels of service on the Interstate as well as the crossroads.

Projections of future population and employment in the region indicate that travel demand will continue to increase well into the future. The ability to accommodate the new travel patterns resulting from growth must be provided to sustain the region's economy. Without the improvements, extremely congested conditions are expected to occur for extended periods of time in both the morning and evening peak periods.

Due to these congested conditions, user travel times will continue to increase, the movement of goods through the urban area will be slower, and the deliveries of goods within the urban area will be forced to other times throughout the day. The need for improvements to I-4 is illustrated by the important transportation roles I-4 serves to the Central Florida region and the State of Florida. If no improvements are made to the Interstate, a loss in mobility for the area's residents, visitors, and commuters can be expected, resulting in a severe threat to the continued viability of the economy and the quality of life.



I-4 Segment 4 Existing Typical Section



I-4 Segment 4 Proposed Typical Section

Figure 2A - I-4, Segment 4 Existing and Proposed Typical Section

The PD&E update involves revising the original design concept showing 6 GULs + 2 HOV lanes, as recommended in the FEIS for I-4 from SR 528 to SR 472 (FPN No. 242486, 242592& 242703, August 2002, Record of Decision Pending), to the current proposed design of 6 GUL + 4 EL. The express lanes are tolled lanes and will extend the full length of the project. The access to/from the tolled lanes will be evaluated as part of this effort to determine if changes are needed from the previously approved concept for access to/from the HOV Lanes. The original I-4 PD&E Studies involved physical separation between the general use lanes and the HOV lanes on I-4, with demand management in the HOV lanes. The original demand management strategy was to control the use of the lanes by requiring a minimum number of occupants per vehicle to maintain an acceptable level of service (Level of Service D). This update also addresses revising the demand management tool to convert the HOV lanes to tolled express lanes. The express lanes will be separated from the general use travel lanes by two shoulders with a barrier wall in between the shoulders. A variable pricing tolling plan is proposed for the express lanes. The tolls will vary by time of day and day of week to maintain acceptable levels of service in the express lanes. The tolls will be collected electronically through existing E-Pass, SunPass and other systems currently in place in the Central Florida area. The conversion to Express Lanes will maintain the same right-of-way limits as documented previously and will not change the impacts to the social, natural or physical environment. An update to the Systems Access Modification Report (SAMR) prepared in January 2013 is being completed in conjunction with this effort.

The purpose of this report is to present the findings of a contamination screening evaluation for the proposed improvements. This report identifies and evaluates known or potential contamination problems, presents recommendations concerning these problems, and discusses possible impacts to the proposed project. The discovery of all contamination problems as early in the project development process as possible is done in order to limit or avoid FDOT liability, establish remediation costs, prevent delay claims during construction, identify appropriate worker safety protocols, and supply information for the property valuation during the acquisition process. If the discovery is early enough, the problem may be avoided entirely. If avoidance is not possible, early discovery will allow proper handling in a logical, timely manner. The FDOT can be held liable for the acquisition of contaminated properties or the exacerbation of contamination due to its activities, even if the contamination source is not acquired.

The FHWA Technical Advisory T6640.8A, dated October 30, 1987 provides the following guidelines for conducting a contamination screening:

“Hazardous waste sites are regulated by the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). During early planning, the location of permitted and non-regulated hazardous waste sites should be identified. Early coordination with the appropriate Regional Office of the EPA and the appropriate State agency will aid in identifying known or potential hazardous waste sites. If known or potential waste sites are identified, the locations should be clearly marked on a map showing their relationship to the alternatives under consideration. If a known or potential hazardous waste site is affected by an alternative, information about the site, the potential involvement, impacts and public health concerns of the affected alternative(s) and the proposed mitigation measures to eliminate or minimize impacts or public health concerns should be discussed in the Draft EIS. If the preferred alternative impacts a known or potential hazardous waste site, the Final EIS should address and resolve the issues raised by the public and government agencies.”

A Contamination Screening Evaluation Report (CSER) is used to determine the likelihood of petroleum or other hazardous substance impacts to the project. The CSER is a requirement of the PD&E process.

This CSER, completed in accordance with Part 2, Chapter 22 (January 17, 2008 revision) of the PD&E Manual contains results from a physical site investigation of the project corridor, a limited investigation of properties along the corridor adjacent to the ROW as viewed from areas of public access, a review of Florida Department of Environmental Protection (FDEP) files, Volusia County records, and available environmental databases.

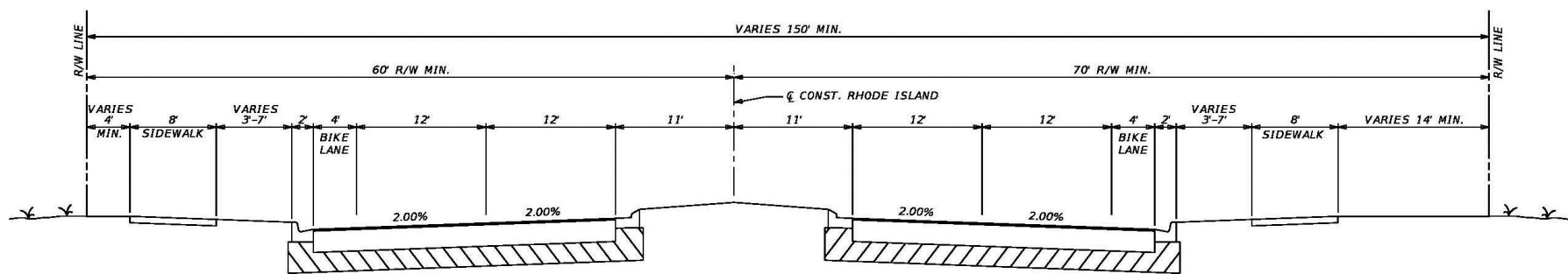
This CSER is a professional opinion of the possibility of contamination impacts to the I-4 corridor resulting from direct visual observation and review of available file information compiled by others. The report is limited to conditions that existed at the time of the investigation and does not address such environmental issues as naturally occurring toxic substances in the subsurface soils, rocks, water and/or toxicity of on-site flora; toxicity of common household products, building materials or consumables; contaminants or contaminant concentrations that are not now a concern but may be under future regulations; contamination by asbestos-containing materials, radon gas, or lead in drinking water or paint.

This level of environmental investigation does not include intrusive testing or analysis of soils or groundwater to verify any suspected contamination. This report recommends whether any further investigative action may be prudent to confirm suspected contaminants.

Dewatering/excavation activities adjacent to known or suspect contamination sites could potentially cause a contamination plume to migrate into the ROW.

RHODE ISLAND AVENUE

An extension to Rhode Island Avenue is being proposed as part of the SR 400 (I-4) PD&E reevaluation project. The limits of improvement extend approximately 1 ¼ miles from the existing east end of Rhode Island Avenue at Veterans Memorial Parkway in Orange City to Normandy Boulevard in Deltona. The current proposed extension follows the same alignment proposed in plans that were completed by Volusia County in 2009. The County has purchased right of way for the previously proposed alignment; any additional parcels will be acquired under the I-4 Beyond the Ultimate project. The proposed typical section consists of a four-lane urban roadway divided by a 22-foot landscape median, with two 12-foot travel lanes and a 4-foot bike lane in each direction. Eight-foot wide sidewalks, which will be separated from the bike lane by a landscape buffer, will be provided on both sides of the roadway. The proposed direct connect interchange at I-4 will provide direct access from the I-4 eastbound express lanes to Rhode Island Avenue and from Rhode Island Avenue to the I-4 westbound express lanes. The Rhode Island Avenue extension and interchange improvements are intended to increase connectivity in this region by providing access between I-4 and US 17/92 (S. Volusia Avenue) to the west and Normandy Boulevard to the east. **Figure 2B** illustrates the proposed typical section for the Rhode Island Avenue extension.



TYPICAL SECTION
RHODE ISLAND AVENUE
DESIGN SPEED = 45 MPH

Figure 2B - Rhode Island Avenue, Proposed Typical Section

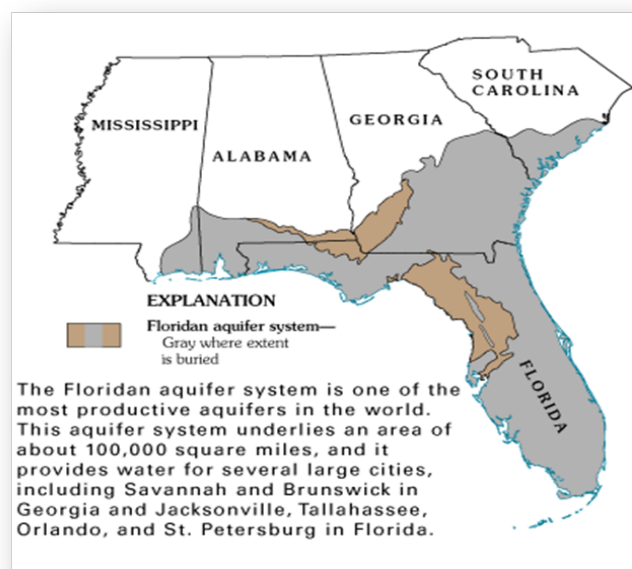
2.0 Land Use

The land use adjacent to I-4 within the proposed project limits consists primarily of natural lands and Residential with some Commercial and Services along adjacent roads. Undeveloped natural areas are located between the St. Johns River and Padgett Creek, north of Saxon Boulevard on both sides of the right-of-way, along the majority of the SR 472 interchange, and various other small isolated patches throughout the corridor. In the southern portion of the project area, Gemini Springs County Park is located to the west of I-4 and Lake Monroe is located to the east of I-4. Several smaller lakes are located adjacent to the proposed project limits. The proposed right-of-way for the Rhode Island Avenue extension consists primarily of xeric oak and sand pine with some residential areas along the west side of the corridor. See Land Use and Habitat Coverage Maps, **Figure B** in **Appendix A** for land use overview.

3.0 Hydrologic Features

The project corridor is within Volusia County, Florida (Volusia County) and is underlain by the Upper and Lower Floridan aquifer. The Upper Floridan Aquifer is generally located from the surface to a depth of approximately 350 to 900 feet where it interfaces with the Lower Floridan Aquifer. This carbonate-rock aquifer consists of layers of limestone and dolomite. The Floridan aquifer spans most of Florida, Alabama, Georgia, and some of South Carolina (see **Figure 3**). The transmissivity ranges from 25,000 to 1,000,000 feet squared per day in areas where the upper confining material of the aquifer is less than 100 feet thick. Groundwater flow in this portion of Volusia County is generally to the southwest within the Floridan Aquifer. According to the U.S. Department of the Interior Topographic Quadrangle maps for Sanford, and Orange City, the project corridor is relatively flat with areas of gently rolling hills (see USGS Topographical Map, **Figure C**, in **Appendix A**). The majority of the elevations along the project corridor generally ranges between 30 to 50 feet (NGVD) above mean sea level, but generally slopes up gradient to the northeast. The highest elevation observed was approximately 80 feet above mean sea level near the SR 472 interchange; the lowest elevation observed was approximately 5 feet above mean sea level at Lake Monroe. A large percentage of the project corridor is located in an area described as having a high potential for recharge of the Floridan Aquifer. A large portion of the right-of-way is located within the 100 year spring-shed boundary for Blue Spring in Orange City

Figure 3 Floridan Aquifer Map



According to the Soil Survey of Volusia County, Florida (1980), the proposed project (I-4 with 500 ft. buffer and the Rhode Island Avenue extension) area consists of twenty one mapped soil types including Apopka fine sand, 0 to 5 percent slopes (1), Astatula fine sand, 0 to 8 percent slopes (4), Astatula fine sand, 8 to 17 percent slopes (5), Basinger fine sand, depressional (8), Bluff sandy clay loam (10), Cassia fine sand (13), Daytona sand, 0 to 5 percent slopes (17), EauGallie fine sand (20), Electra fine sand, 0 to 5 percent slopes (22), Immokalee sand (29), Myakka fine sand, depressional (33), Orsino fine sand, 0 to 5 percent slopes (37), Paola fine sand, 0 to 8 percent slopes (42), Paola fine sand, 8 to 17 percent slopes (43), Placid fine sand, depressional (48), Pomona fine sand, depressional (50), Quartzipsamments, gently sloping (54), Riviera fine sand (55), Smyrna fine sand (60), St. Johns fine sand (61), and Tavares fine sand, 0 to 5 percent slopes (63).

A brief description of each of the mapped soil types occurring within the project site is provided below.

Apopka fine sand, 0 to 5 percent slopes (1) – Apopka fine sand, 0 to 5 percent slopes is a well-drained, nearly level to gently sloping soil found on intermediate to high sand hills. Typically, the surface layer is very dark grayish brown fine sand about 6 inches thick. The subsurface layer is fine sand to a depth of 62 inches. In sequence downward, 16 inches is grayish brown mottles with very pale brown, 28 inches is light yellowish brown mottles brownish yellow, and 12 inches is white. The subsoil is brownish yellow sandy clay loam mottles with pale brown to more than 80 inches deep.

The water table is typically 72 inches beneath the surface or below. When protected from fire, like in the southern part of the Deland ridge, the natural vegetation consists of a forest of sand live oak, sand pine, laurel oak, and turkey oak. The understory includes pineland threeawn, common prickly pear, gopher apple, and scattered saw palmetto.

Astatula fine sand, 0 to 8 percent slopes (4) – Astatula fine sand, 0 to 8 percent slopes is an excessively drained, nearly level to sloping soil found on sandhills. Typically, the surface layer is gray fine sand about 2 inches thick. The underlying layers are fine sand about 93 inches thick. In sequence downward, 8 inches is brown, 16 inches is pale brown, and 69 inches is very pale brown.

The water table is always below 80 inches and is usually below 120 inches. The natural vegetation consists of sand pine, turkey oak, sand live oak, laurel oak, and longleaf pine. The understory includes fetterbush, rosemary bush, scattered saw palmetto, pineland threeawn, prickly pear, gopher apple, creeping bluestem, and chalky bluestem.

Astatula fine sand, 8 to 17 percent slopes (5) – Astatula fine sand, 8 to 17 percent slopes is an excessively drained, sloping to moderately steep soil found around sinks and depressions and on the side slopes of high sand ridges. Typically, the surface layer is gray fine sand about 3 inches thick. The underlying layers are fine sand to a depth of 80 inches or more. The upper 7 inches is brown, the next 36 inches is light yellowish brown, and the lower 34 inches is very pale brown.

The water table is always below 80 inches and is usually below 120 inches. The natural vegetation consists of sand pine, turkey oak, sand live oak, laurel oak, and longleaf pine. The understory includes fetterbush, rosemary bush, scattered saw palmetto, pineland threeawn, prickly pear, gopher apple, creeping bluestem, and chalky bluestem.

Basinger fine sand, depressional (8) – Basinger fine sand, depressional is a poorly drained, nearly level soil found mainly in depressions and in a few poorly defined drainage ways in the flatwoods and sandhills. Typically, the surface layer is gray fine sand about 5 inches thick. The underlying layers are sand to a depth of more than 80 inches. The upper 15 inches is light gray generally streaked with gray or dark gray, the next 5 inches is dark brown with black fragments, and the lower layers are grayish brown, very pale brown or light gray.

The water table is at or above the surface for several months in most years. The rest of the time it is within 30 inches of the surface except during prolonged dry periods. The natural vegetation consists of St. John's wort, maidencane, other water tolerant grasses, some pineland threeawn, and scattered pond pine.

Bluff sandy clay loam (10) – Bluff sandy clay loam is a very poorly drained, nearly level and frequently flooded soil found on low terraces bordering the St. Johns River. Typically, the surface layer is sandy clay loam about 14 inches thick. The upper 8 inches is black, and the lower 6 inches is dark gray. The subsoil is gray sandy clay loam that extends to 68 inches. Mottles in shades of brown and yellow commonly occur in the subsoil. Below this to a depth of 99 inches is gray massive clay.

The water table is at the surface for long periods of time and is commonly flooded during the rainy season. The water table may drop several feet below the surface during extended dry periods. The natural vegetation consists of water tolerant plants including sedges, pickerelweed, cattail, and some sawgrass. In some places there are hammocks of cabbage palm, live oak, and cedar.

Cassia fine sand (13) – Cassia fine sand is a somewhat poorly drained, nearly level to gently sloping soil found in slightly elevated positions in the flatwoods or in lower positions on the sandhills. Typically, the surface layer is gray fine sand about 3 inches thick. The subsurface layer is white fine sand about 25 inches thick. The subsoil is 4 inches of black fine sand over 4 inches of brown fine sand mottles with dark reddish brown. The sand grains are coated with organic matter. The substratum is fine sand to a depth of 80 inches or more. The upper 11 inches is brown, the next 7 inches is pale brown, and the lower 27 inches is light gray.

The water table is between 15 and 40 inches below the surface for about 6 months a year, and recedes below 40 inches during dry seasons in most years. The natural vegetation consists of scattered slash pine, longleaf pine, and sand pine. The understory includes dense scrubby oaks, a few saw palmetto, and pineland threeawn.

Daytona sand, 0 to 5 percent slopes (17) – Daytona sand, 0 to 5 percent slopes is a moderately well drained, nearly level to gently sloping soil found on gently undulating sandhills or slightly elevated places in flatwoods. Typically, the surface layer is gray sand about 5 inches thick. The subsurface layer is white sand about 31 inches thick. The subsoil is mainly yellowish brown sand about 11 inches thick. Below the subsoil to a depth of 80 inches or more is light brownish gray sand mottled in shades of brown.

The water table is commonly at a depth of 40 to 50 inches below the surface for between 1 and 4 months a year during the wet season. It can drop to 72 inches deep or lower during extended dry periods. The natural vegetation consists of scattered turkey oak, slash pine, and some longleaf pine. The understory is commonly brushy and includes rosemary, fetterbush, and saw palmetto.

EauGallie fine sand (20) – EauGallie fine sand is a poorly drained, nearly level soil found in broad flatwoods. Typically, the surface layer is 9 inches thick. The upper 4 inches is black fine sand, and the lower 5 inches is very dark gray fine sand. The subsurface layer is gray fine sand about 12 inches thick. The subsoil begins at a depth of about 21 inches. The upper 6 inches is black fine sand, the next 4 inches is dark brown fine sand. To a depth of 52 inches is brown fine sand, and to 61 inches is a layer of gray sandy loam. Below this to 65 inches is pale brown fine sand.

The water table fluctuates within 10 inches of the surface for periods of 1 to 4 months in most years and is within 40 inches for more than 6 months. The natural vegetation consists of longleaf pine, and slash pine. The understory includes saw palmetto, gallberry, and pineland threeawn.

Electra fine sand, 0 to 5 percent slopes (22) – Electra fine sand, 0 to 5 percent slopes is a somewhat poorly drained, nearly level soil that is found in slightly elevated areas in the flatwoods. Typically, the surface layer is dark gray fine sand that is 2 inches thick. The subsurface layer is fine sand that is light gray in the upper 6 inches and white in the lower 27 inches. The subsoil is between depths of 35 and 78 inches. In sequence downward, it is 6 inches of dark reddish brown fine sand, 11 inches of dark brown to brown fine sand, 5 inches of very pale brown fine sand, 13 inches of light brownish gray sandy clay loam, and 8 inches of light brownish gray sandy loam. Below the subsoil to 92 inches is gray loamy fine sand.

The water table is at a depth of between 20 and 40 inches for about 4 months during most years and recedes to below 40 inches during drier periods. The natural vegetation consists of an open forest of slash pine, sand pine, and dense scrub live oak. The understory includes saw palmetto, creeping bluestem, chalky bluestem, pineland threeawn, fetterbush, and gallberry.

Immokalee sand (29) – Immokalee sand is a poorly drained, nearly level soil found on broad areas in the flatwoods, low areas between sand ridges, or on slightly elevated areas between ponds and sloughs. Typically, the surface layer is about 10 inches thick. The upper 5 inches is black sand, and the lower 5 inches is dark gray sand. The subsurface layer is sand streaked with very dark gray in old root channels. The upper 6 inches is gray, and the lower 18 inches is light gray. The subsoil is loamy sand or sand that is coated with organic matter. The upper 5 inches is dark reddish brown loamy sand, and the lower 5 inches is black sand. The underlying material is grayish brown sand to a depth of 80 inches or more.

The water table is within 10 inches of the surface for between 1 and 2 months a year and 10 to 40 inches below the surface for more than 6 months in most years. Occasionally the water table will rise above the surface during prolonged heavy rains. The natural vegetation consists of an open forest of slash pine and longleaf pine. The understory includes saw palmetto, runner oak, and pineland threeawn.

Myakka fine sand, depressional (33) – Myakka fine sand, depressional is a poorly drained, nearly level soil found in depressions in the flatwoods. Typically, the surface layer is a very dark gray about 5 inches thick with a gray subsurface layer about 20 inches thick. The subsoil is black in the upper 3 inches, dark reddish brown in the next 7 inches, and dark brown in the lower part. The sand grains in the 10 inches of subsoil are coated with organic matter. Below the subsoil to a depth of about 80 inches is brown fine sand.

The water table is within 10 inches of the surface for 3 to 6 months a year and is commonly goes 2 to 6 inches above the surface during rainy periods. During prolonged dry periods, the water table may drop to between 2 and 3 feet below the surface. The natural vegetation consists of pineland threeawn, maidencane, scattered pine, myrtle, and scattered clumps of saw palmetto.

Orsino fine sand, 0 to 5 percent slopes (37) – Orsino fine sand, 0 to 5 percent slopes is a moderately well drained, nearly level to gently sloping sandy soil that is found on low flat ridges and low side slopes of higher sandhills. Typically, the surface layer is gray fine sand about 6 inches thick. The subsurface layer is light gray fine sand about 24 inches thick. Tongues of material from the subsurface layer extend into the subsoil. The subsoil is mainly brownish yellow and yellow fine sand about 38 inches thick. The underlying material is very pale brown fine sand mottles with yellowish brown and light gray to a depth of 80 inches or more.

The water table is 40 to 60 inches below the soil surface in wet seasons. It recedes to below 60 inches during dry periods. The natural vegetation consists of sand pine with an understory that includes scattered saw palmetto and rosemary.

Paola fine sand, 0 to 8 percent slopes (42) – Paola fine sand, 0 to 8 percent slopes is an excessively drained, nearly level to sloping sandy soil that is found on high, broad sandhills. Typically, the surface layer is a mixture of light gray fine sand and black organic matter about 6 inches thick. The subsurface layer is light gray and white fine sand about 20 inches thick. The subsoil is yellow fine sand about 38 inches thick. Tongues of subsurface material extend into the subsoil. They have a dark brown or yellowish brown exterior and a light gray interior. Below the subsoil is very pale brown fine sand to a depth of 80 inches or more.

The water table is seasonally at its highest at 72 inches below the surface and recedes to a greater depth during dry periods. The natural vegetation consists of a sand pine-scrub oak forest with an understory that includes scattered saw palmetto and rosemary.

Paola fine sand, 8 to 17 percent slopes (43) – Paola fine sand, 8 to 17 percent slopes is an excessively drained, strongly sloping to moderately steep sandy soil that can be found in small areas of side slopes and sand ridges, around sinks, and along streams that have high banks. Typically, the surface layer is gray fine sand about 5 inches thick. The upper 6 inches of the subsurface layer is gray fine sand, and the lower 19 inches is light gray fine sand. The subsoil is yellow fine sand about 35 inches thick. Tongues of subsurface material extend into the subsoil. They have a brownish yellow exterior and a light gray interior. Below the subsoil is very pale brown fine sand to a depth of 80 inches or more. The water table is seasonally at its highest at 72 inches below the surface and recedes to a greater depth during dry periods. The natural vegetation consists of a sand pine-scrub oak forest with an understory of rosemary.

Placid fine sand, depressional (48) – Placid fine sand, depressional is a very poorly drained, nearly level soil that occurs in wet depressions. Typically, the surface layer is black fine sand about 11 inches thick over 4 inches of very dark gray fine sand that generally has a few gray streaks. The underlying material is fine sand that extends to 80 inches or more. The upper 28 inches is gray, the next 24 inches is grayish brown, and the lower part is light brownish gray.

The water table is within a depth of 12 inches of the surface for more than 6 months during most years. The soil is generally covered with standing water for as much as 6 months annually. The natural vegetation is generally wetland grasses, such as maidencane, but in some areas it is pond pine, bay, and cypress.

Pomona fine sand, depressional (50) – Pomona fine sand, depressional is a poorly drained, nearly level soil that is found in depressions. Typically, the surface layer is black fine sand about 7 inches thick. The subsurface layer is gray fine sand about 7 inches thick. The subsoil between depths of 14 and 25 inches is friable dark reddish brown fine sand and between depth of 25 and 33 inches is very dark grayish brown and dark brown fine sand. Below this is 16 inches of brown fine sand and then 4 inches of light gray fine sand. Between depths of 53 and 61 inches is gray fine sandy loam. Below this to 70 inches or more is light gray fine sandy loam with pockets of loamy fine sand and fine sand.

The water table fluctuates from about 6 inches above the soil surface to a depth of about 10 inches for 4 to 8 months during most years. The water table may drop to a depth of 40 inches during extended dry periods. The natural vegetation consists of scattered slash pine, loblolly bay, sweetgum, and pond pine. The understory includes gallberry, wax myrtle, St.-John's wort, fetterbush, and scattered saw palmetto.

Quartzipsamments, gently sloping (54) – Quartzipsamments, gently sloping is a moderately well drained, gently sloping sandy soil that has been reworked and shaped by earthmoving equipment. This soil can be found around former sloughs and shallow ponds that have been deepened to form lakes, or where low areas have been filled with sandy material. Typically, these soils are highly variable because they have been mixed during movement and have no defining horizonation or orderly sequence of layers.

The water table is usually below a depth of 40 inches in most places. The vegetation consists of various scattered weeds.

Riviera fine sand (55) – Riviera fine sand is a poorly drained, nearly level soil that is found on broad, low flats. Typically, the surface layer is fine sand about 16 inches thick. The upper 4 inches is very dark gray, and the lower 12 inches is dark gray. The subsurface layer is light brownish gray fine sand about 9 inches thick. The subsoil is about 18 inches of gray sandy clay loam that has many medium and coarse distinct yellowish brown mottles. The upper 13 inches has vertical tonguing or intrusions from the subsurface layer. The underlying material to a depth of about 64 inches is light brownish gray loamy sand.

The water table is within a depth of 10 inches of the surface for between 2 and 6 months and is within 40 inches for about 6 months during most years. The natural vegetation consists of mixed hardwoods, cabbage palm, water oak, laurel oak, southern magnolia, slash pine, and southern red cedar. The understory includes wax myrtle, gallberry, fetterbush, maidencane, smooth cordgrass, chalky bluestem, pineland threeawn, toothache grass, and broomsedge bluestem.

Smyrna fine sand (60) – Smyrna fine sand is a poorly drained, nearly level sandy soil found on broad areas in the flatwoods. Typically, the surface layer is black or very dark gray fine sand about 4 inches thick. The subsurface layer is fine sand about 13 inches thick that is gray in the upper 4 inches and light gray in the lower 9 inches. The subsoil is fine sand about 33 inches thick. The upper 2 inches is very dark gray, the next 5 inches is black, the next 3 inches is very dark grayish brown, and the lower 23 inches is brown. Below the subsoil, between depths of 50 to 72 inches, is gray fine sand that has brownish mottles, and next is 8 inches of white fine sand that has yellowish mottles.

The water table is within 10 inches of the surface for between 1 and 4 months and between 10 and 40 inches for more than 6 months during most years. During rainy seasons, the water table may rise to the surface for brief periods of time. The natural vegetation consists of an open forest of slash pine with an understory that includes saw palmetto, running oak, and pineland threeawn.

St. Johns fine sand (61) – St. Johns fine sand is a poorly drained, nearly level sandy soil that occurs in low places in flatwoods, generally adjacent to swamps. Typically, the surface layer is 7 inches of black fine sand above 3 inches of very dark gray fine sand. The subsurface layer is about 16 inches thick and is composed of 3 inches of gray fine sand over 13 inches of light gray fine sand. The subsoil is fine sand coated with colloidal organic matter composed of 9 inches of black on top, 8 inches of dark reddish brown in the middle, and 11 inches of dark brown on the bottom. Below the subsoil is brown fine sand to a depth of 60 inches or more.

The water table is within 10 inches of the surface for 2 to 6 months and between 10 and 40 inches for more than 6 months. In rainy seasons, the water table rises to the surface for brief periods of time. The natural vegetation consists of pond pine, longleaf pine, slash pine, and loblolly bay with an understory that includes saw palmetto and gallberry.

Tavares fine sand, 0 to 5 percent slopes (63) – Tavares fine sand, 0 to 5 percent slopes is a moderately well drained, nearly level to gently sloping sandy soil that is found on higher positions on the low sand ridges and in intermediate positions on

the higher sand ridges. Typically, the surface layer is dark gray fine sand about 8 inches thick. The underlying material is fine sand to a depth of 80 inches or more. The upper 16 inches is pale brown fine sand that has yellowish and brownish splotches throughout. The next 24 inches is very pale brown mottles with yellow. Below this to 80 inches is white fine sand mottled with brown and yellow.

The water table is between 40 and 60 inches of the surface during wet seasons and recedes to a greater depth during prolonged dry periods. The natural vegetation consists of a forest of longleaf pine and turkey oak with a understory that includes pineland threeawn and scattered saw palmetto.

4.0 Methodology

FDOT PD&E guidelines (Chapter 22, January 17, 2008 revision) were followed to assess potential contamination. Per these guidelines, current land use and potential contaminants were identified, and all available regulatory agency records were consulted.

A detailed site inspection was conducted of the I-4 corridor and proposed pond sites in April, May, and June 2013, and March, October, and November 2014. Prior to the site inspection, a review of the Florida Department of Environmental Protection (FDEP) Oculus Database was conducted to determine locations of contaminated sites. Sanborn Fire Insurance maps, were not reviewed since the project area was rural in nature during the time that they were printed. The corridor was inspected along the ROW via vehicular survey. The survey also included a limited visual inspection of the adjacent properties and properties within ½ a mile of the roadway. Pond sites were inspected via pedestrian transects. Any observed potential hazardous or petroleum sources were noted and can be found in the Results section (**Section 5.0**). A comprehensive list of potential contamination sites is provided in **Table 1**.

Known and potential contamination sites along the I-4 project corridor were recorded on aerial maps (See Contamination Site Maps, **Figure D**, in **Appendix A**). Photographs of properties within the 0.5 mile radius with reported contamination as well as properties with potential contamination were taken to document site conditions within the study area (see Contamination Site Photographs, **Appendix B**).

Aerial photos from 1943-2014 were reviewed to identify any potential activities that may indicate that contamination from hazardous or petroleum substance generation, storage, or transportation may have occurred within the project area. Historic aerial photographs were reviewed using the State University System of Florida, Publication of Archival Library & Museum Materials website. Examples of the aerial flights over the project corridor from 1943–1989 can be found in **Appendix C**. Recent aerial imagery is shown on the project maps in **Appendix A**.

This CSER incorporates the FDEP's Oculus Database Information to identify available regulatory agency information pertaining to hazardous materials. The following files were searched for any sites with hazardous or petroleum material records and/or violations: Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), Toxic Site Directory (TSD), Generators (GEN), Emergency Response Notification System (ERNS), National Priority List (NPL), Resource Conservation and Recovery Information System (RCRIS), Facility Index System (FINDS), RCRA Administrative Action Tracking System (RAATS), Registered Underground Storage Tanks (UST), Leaking Registered Underground Storage Tanks (LUST), Toxic Release Inventory (TRI), State Superfund Sites, Solid Waste Facilities, and Volusia County records.

A contamination potential rating for each potential pond site is listed in **Table 2** and that of each property within the proposed project limits is listed in **Table 3 (Section 8.0)**. The contamination rating system is divided into four degrees of risk: No, Low, Medium, and High. This system expresses the degree of concern for potential contamination problems based upon the available information. Known problems may not necessarily present a high cause for concern if the regulatory agencies are aware of the situation and actions, where necessary, are either complete or are underway, and these actions will not have an adverse impact on the proposed project. Definitions of the risk ratings are as follows:

- **No risk:** This rating means that after review of available information, there was nothing to indicate that contamination would be a problem. It is possible that contaminants could have been handled on the property; however, all information indicates problems should not be expected.
- **Low risk:** This rating means that the former or current operation has a hazardous waste generator identification number, or deals with hazardous materials; however, based on all the available information, there is no reason to believe there would be any involvement with contamination in relation to the project.
- **Medium risk:** This rating means that after reviewing all available information, indications were found that identify known soil and/or water contamination and that the problem does not need remediation, is being remediated, or that continued monitoring is required.
- **High risk:** This rating means that after review of all available information, there is a potential for contamination problems. Further assessment would be required after alignment selection to determine the actual presence or absence and/or levels of contamination and the need for remedial action.

During the course of field investigations and research, interviews with available property owners, site managers, and a representative of the FDEP were conducted to ascertain any additional relevant information to assist with the evaluation of potential risk ratings.

5.0 Results

5.1 Corridor Land Uses

Residential (1000-1300) – This range of land use codes consists of areas containing low, medium, and high density residential housing. These areas are found primarily in the central portion of the project corridor on both sides of the right-of way from Dirksen Drive and DeBary Avenue to Saxon Boulevard. This land use was also observed north of Saxon Boulevard on the east side of the right-of-way, and south of Graves Avenue on the west side of the right-of-way. Several developments are located to the north of the proposed Rhode Island Avenue extension. The majority of dwellings along the project corridor consist of single family homes. The most densely populated areas are the Orange City RV Resort and an area of homes along Deltona Boulevard.

Commercial and Services (1400) – This land use was observed primarily around the interchanges with Dirksen Drive/DeBary Avenue, and Saxon Boulevard and along Deltona Boulevard and Enterprise Road. It includes numerous types of businesses in malls, strip malls and as stand-alone establishments along the corridor.

Retail Sales and Services (1410) – This land use was observed in several portions of the project corridor, primarily along Deltona Boulevard and Enterprise Road. It consists of shopping centers, and other service/retail oriented businesses along the adjacent roadways.

Professional Services (1430) – Medical offices, dental offices, veterinary offices, and other professional offices are located along the corridor, primarily along Deltona Boulevard and Enterprise Road.

Tourist Services (1450) – Two hotels were identified along the project corridor, one at the interchange with Dirksen Drive/DeBary Avenue, and one at the interchange with Saxon Boulevard.

Cemeteries (1480) – Two cemeteries were identified along the project corridor, one along Enterprise Road to the east of I-4, and one along Saxon Boulevard to the west of I-4.

Other Light Industrial (1550) – Two small light industrial facilities were identified along the project corridor. One was along Enterprise Road to the east of I-4, and the other was along Graves Avenue to the east of I-4.

Institutional (1700) – This land use consists of schools and institutions such as Deltona Middle School, several places of worship along Deltona Boulevard, and a fire station along Diamond Street.

Golf Courses (1820) – This land use was only observed to the west of I-4 at the Orange City RV Resort.

Parks and Zoos (1850) – This land use consists of recreational facilities that are either parks or zoos. Lake Monroe Park to the west of I-4 along the St. Johns River was the only representative of this land use identified.

Community Recreational Facilities (1860) – This land use is represented by Bill Keller Park, which is a recreational sports facility located off of Colomba Road, west of the right-of-way.

Open Land (1900) – This land use consists of undeveloped land within urban areas and inactive land with street patterns but without structures. Several small areas of this land use were observed along the central portion of the project corridor.

Improved Pasture (2110) – This category of land use consists of land which has been cleared, tilled, reseeded with specific grass types and periodically improved with brush control and fertilizer application. A large swath of land on the western side of I-4 just north of the SR 472 interchange has been converted to improved pasture.

Herbaceous- Dry Prairie (3100) – This land use consists of open, dry treeless areas containing grasses, forbs, sedges, rushes and other herbaceous vegetation. This habitat was observed in one small patch of land on the western side of I-4 just north of the Enterprise Road overpass. This land use may also be used to describe some areas surrounding reservoirs in this project corridor.

Shrub and Brushland (3200) – This land use consists of primarily shrubs and brush species. A few small patches of this land use were observed along the project corridor and portions of the Rhode Island Avenue extension.

Mixed Upland Non-forested (3300) – This land use is described as not being dominated by any species and may be comprised of multiple species. It was observed in a small area to the north and south of Graves Avenue, on the west side of I-4.

Pine Flatwoods (4110) – This land use consists of natural pine flatwoods. It was observed along a thin strip of land along Florida Avenue, west of the right-of-way and several other small patches along the project corridor.

Longleaf Pine - Xeric Oak (4120) – This land use is described as being dominated by longleaf pine and has a mid-story canopy of blue-jack oak, turkey oak, post oak, and other dry site tolerant oaks and hardwoods. It was observed in a small area to the southwest of the Graves Avenue overpass.

Sand Pine (4130) – This land use consists of upland forest communities dominated by sand pine. It was observed along the majority of the project corridor on both sides of the right-of-way north of Saxon Boulevard, within the proposed right-of-way for the Rhode Island Avenue extension east of I-4, and in other small isolated patches south of Saxon Boulevard.

Xeric Oak (4210) – This land use upland oak communities which occupy similar habitat as the Longleaf Pine – Xeric Oak community except that the pines, if present, are not the dominant species. The vegetation typically consists of a mid-story canopy of blue-jack oak, turkey oak, post oak, and other dry site tolerant oaks and hardwoods. It was observed along portions of the proposed Rhode Island Avenue extension, including Pond Site A.

Hardwood-Conifer Mixed (4340) – Vegetation within this land use consists of oaks, pine, and other species with no clear canopy dominance between hardwoods and conifers. This land use was observed along a large portion of the northern portion of the corridor, especially around the SR 472 interchange and areas on the west side of I-4 to the north of Saxon Boulevard. Other smaller area of this land use was observed in isolated patches between Dirksen Drive/DeBary Avenue and Saxon Boulevard.

Coniferous Plantations (4410) – This land use consists almost exclusively of pine forests artificially generated by planting seedling stock or seeds. Two small isolated patches of this land use were identified to the west of the right-of-way.

Streams and Waterways (5100) – This land use designates rivers, creeks, canals, and other linear water bodies. The St. Johns River resumes its course at the mouth of Lake Monroe, approximately where I-4 crosses from Seminole County to Volusia County over a bridge. I-4 also crosses Padgett Creek, which is a small tributary to Lake Monroe.

Lakes (5200) – This land use designates inland water bodies which are not classified as reservoirs. Lake Monroe is a large lake located to the east of I-4 at the southern portion of the corridor. Several other named lakes, including Lake Gleason, Lake Emerald, and Trout Lake are located near the right-of-way. Several other smaller lakes are located along the project corridor, including one that is directly adjacent to the west of the right-of-way, south of Saxon Boulevard and one along the south part of the proposed right-of-way for the Rhode Island Avenue extension.

Reservoirs (5300) – This land use designates all retention ponds and other artificial impoundments used for irrigation and flood control. Numerous reservoirs were observed along the project corridor, primarily in urban areas. One reservoir is located within the median, south of Saxon Boulevard.

Bay Swamps (6110) – This land use is composed of dominant trees such as loblolly bay, sweetbay magnolia, swamp bay, with slash pine and loblolly pine as an associated component at times. Large gallberry, fetterbush, wax myrtle and titi are included in the understory vegetation. One isolated patch was observed to the west of the project corridor north of the St. Johns River.

Mixed Wetland Hardwoods (6170) – This land use is reserved for those wetland hardwood communities which are composed of a large variety of hardwood species tolerant of hydric conditions yet exhibit an ill-defined mixture of species. This habitat type was primarily observed along the southern portion of the project corridor between the St. Johns River and the Dirksen Drive/DeBary Avenue interchange.

Cypress (6210) – Dominant vegetation consists of cypress and was observed in low areas bordering Lake Monroe and the St. Johns River.

Wetland Forested Mixed (6300) – This land use is defined as mixed wetlands forest communities in which neither hardwoods or conifers achieve a 66 percent dominance of the crown canopy composition. This habitat type was observed to the west of I-4 near the St. Johns River and in several patches within and adjacent to the Dirksen Drive/DeBary Avenue interchange.

Wetland Scrub (6310) – This land use is defined as being associated with topographic depressions and poorly drained soil with a mix of wetland species without a dominant species. This habitat type was observed in a narrow strip of land on both sides of I-4 between the St. Johns River and the Dirksen Drive/DeBary Avenue interchange and in several other isolated patches.

Freshwater Marsh (6410) – This land use is defined as vegetated non-forested wetlands which are usually found in low-lying areas or depressions in the landscape, they can be found adjacent to the roadway in several places between the St. Johns River and Saxon Boulevard. Smaller isolated patches of this habitat type also occur in several areas near lakes throughout the project corridor.

Emergent Aquatic Vegetation (6440) – This land use is defined as being wetland areas where floating vegetation and vegetation which is found either partially or completely above the surface. Multiple patches of this habitat type were observed along the project corridor, usually near or adjacent to waterways.

Disturbed Lands (7400) – This land use is defined as those areas which have been changed due primarily to human activities other than mining. An area of exposed sand which is used for driving off-road vehicles was observed east of I-4 just south of the Graves Avenue overpass. This land use may also be used to describe some earthen berms surrounding reservoirs in this project corridor.

Rural Land in Transition without Positive Indicators of Intended Activity (7410) – This land use was observed in one area to the east of I-4, just south of Graves Avenue.

Railroads (8120) – This land use designates all railroad facilities and lines. A railroad bridge crosses the St. Johns River to the west of I-4, and the railroad line extends to the north, away from the right-of-way.

Roads and Highways (8140) – This land use designates all major and minor roads throughout the project corridor.

Communications (8200) – This land use designates all communications structures. A radio tower and an associated building were observed east of I-4 along Lake Monroe.

Electrical Power Facilities (8310) – This land use designates power plants, including the FPL Sanford Plant along the St. Johns River and the Duke Energy Florida Turner Plant #B off of DeBary Avenue.

Electrical Power Transmission Lines (8320) – There are electrical power transmission lines that cross the St. Johns River just west of I-4. There are also lines that cross I-4 at the Dirksen Drive/DeBary Avenue and Saxon Boulevard interchanges.

Water Supply Plants (8330) – There is a water supply plant east of I-4 to the north of Firwood Drive, off of Normandy Boulevard.

Surface Water Collection Basins (8370) – This land use consists of areas used to collect excess stormwater runoff. They are found near roadways and within interchanges.

5.2 Site Observations

Detailed field reviews were conducted within the I-4 and Rhode Island Avenue right-of-ways and, the proposed pond sites to determine if illicit dumping had occurred. The existing and proposed pond sites were reviewed to determine if any adjacent properties had caused contamination impacts to those sites. Site reconnaissance of properties within and adjacent to the corridor up to 1/2 mile away were inspected and photographed.

The existing unpaved right-of-way within the project corridor consists primarily of areas of maintained grass. The right-of-way is lined with intermittent patches of landscaped vegetation, as well as other smaller areas of natural vegetation. Some forested areas occur within the interchanges around Dirksen Drive/DeBary Avenue, Saxon Boulevard, and SR 472 but these are not connected to systems outside of the right-of-way.

The project is developing alternatives for the proposed expansion, all of which will be assumed to impact the existing right-of-way in its entirety. In order to achieve the goals of the project (expansion to 6 general use lanes plus 4 express lanes), the designers must utilize as much of the existing right-of-way as possible, though the potential for the need to acquire minimal amounts of additional right-of-way for the improvements remains. New right-of-way for pond sites will be required as the existing right-of-way does not contain sufficient areas to provide the necessary treatment and retention, along with the capacity expansions. The project right-of-way is depicted on the Land Use and Habitat Coverage Maps (See **Figure B**, in **Appendix A**).

Forty three (43) potential stormwater management facilities were evaluated for this segment including all preferred and not preferred alternatives; twelve (12) are existing facilities which were previously permitted and are being modified or enlarged to meet the requirements of the project, while four (4) are existing and will be utilized with no modifications. Twenty four (24) new pond sites and two (2) new treatment swales (Swales 401-A & 401-B) and one (1) stormwater vault are proposed. All pond sites and pond site alternatives are described in detail below. The proposed pond sites are depicted on the Land Use and Habitat Coverage Maps (See **Figure B**, in **Appendix A**). A contamination potential rating for each pond site within the proposed project limits is given in the description below and listed in **Table 2 (Section 8.0)** using the same system for ranking other contamination sites as described in the methodology above.

The existing pond sites that will not require modifications are pond sites 400, D, 413, and 414.

Pond Site 400 – Pond Site 400 is located west of I-4 to the north of the St. Johns River. This is a recommended pond site. The current pond site has very little open water and is dominated by cattail with some primrose along the edges. The sloped rim of the pond primarily consists of mowed Bahia grass and other herbaceous species. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site D – Pond Site D is located to the east of I-4, along the western edge of Normandy Boulevard and is proposed as part of the Rhode Island Avenue extension. The current site consists entirely of mowed Bahia grass and weedy herbaceous species. The edge of the pond site is comprised primarily of sand pine with some scrub live oak, palmetto, and turkey oak. A small pile of discarded masonry bricks were observed at the southeast corner of the pond site, but no obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 413 – Pond Site 413 is located south of the intersection of Graves Avenue and SR 472. This pond site is primarily Bahia grass with other herbaceous species and has large open patches of bare sand. The majority of the perimeter of the pond site is vegetated with scrub live oak, sand pine, palmetto, and gopher apple. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 414 – Pond Site 414 is located to the northeast of the Cassadaga Road overpass. This pond site is primarily mowed Bahia grass with some patches of cogon grass and other herbaceous species. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

The existing pond sites that will require modifications for the project include ponds 402A, 405A, 405B, 406A, 407A, 408, 408 (ALT), 409-A1, 409-A2, 410, 411, and 418.

Pond Site 402A – Pond Site 402A is located to the west of I-4, within the interchange with Dirksen Drive. This is a recommended pond site. The current pond site is surrounded by patches of cattail, primrose, and torpedo grass with some planted cypress and sweetgum along the edges. Dense patches of hydrilla dominate the open water portion of the pond site. The rim of the pond primarily consists of mowed Bahia grass and other herbaceous species. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 405A – Pond Site 405A is located within the southwest quadrant of the Saxon Boulevard interchange. This is a recommended pond site. The pond site has shallow standing water with vegetation consisting primarily of cattail, willow, and white water lily along with a patch of pickerel weed and arrowhead at the southwest part of the site. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 405B – Pond Site 405B is located within the southwest quadrant of the Saxon Boulevard interchange. This is a recommended pond site. The pond site has shallow standing water with vegetation consisting primarily of cattail, willow, and white water lily. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 406A – Pond Site 406A is located within the northwest quadrant of the Saxon Boulevard interchange. This is a recommended pond site. The central part of the pond site consists of mowed torpedo grass and other herbaceous species. The western part of the pond site consists of a patch of wax myrtle, salt bush, and slash pine with some planted cypress. The eastern and northern portions of the pond site are dominated by sand pine. Some household debris was dumped along the northeastern edge of the proposed pond site, but none of the discarded items appeared to be materials considered hazardous and no other signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 407A – Pond Site 407A is located within the northeast quadrant of the Saxon Boulevard interchange. The pond site consists primarily of torpedo grass with rattlebox and other herbaceous species along the sloped banks. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 408 – Pond Site 408 is located on the north side of Saxon Boulevard, to the east of I-4. This is a recommended pond site. This current pond site is primarily un-vegetated and semi-wet, with the sloped rim consisting primarily of mowed Bahia grass. The proposed new right-of-way to the east of the current pond site includes two identified contamination sites (**Sites #73 and #74**). Due to the proposed acquisition of these identified contamination sites and the

potential for undocumented petroleum and/or dry cleaning solvent contamination to exist at the site, this pond site was given a **MEDIUM RISK** rating. See individual site descriptions for these sites in **Section 5.4**.

Pond Site 408 (Alternative) – Pond Site 408 (Alternative) is located on the north side of Saxon Boulevard, to the east of I-4. This is the alternative to Pond Site 408. This pond site includes Pond Site 408 and existing commercial businesses to its east along Saxon Boulevard. These commercial businesses include two identified contamination sites (**Sites #73 and #74**). Due to the proposed acquisition of these identified contamination sites and the potential for undocumented petroleum and/or dry cleaning solvent contamination to exist at the site, this pond site was given a **MEDIUM RISK** rating. See individual site descriptions for these sites in **Section 5.4**.

Pond Site 409-A1 – Pond Site 409-A1 is located on the east side of I-4, north of Saxon Boulevard and is the recommended alternative for this pond site. The pond site is mostly mowed Bahia grass and other herbaceous species. A stand consisting of sand pine and scrub live oak is located along the southern, eastern, and northern end of the fence within the designated right-of-way. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 409-A2 – Pond Site 409-A2 is located on the east side of I-4, north of Saxon Boulevard. This an alternative pond site that is mostly mowed Bahia grass and other herbaceous species. A stand consisting of sand pine and scrub live oak is located along the southern, eastern, and northern end of the fence within the designated right-of-way. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 410 – Pond Site 410 is located to the east of I-4, within SR 472 interchange. This pond site is primarily mowed Bahia grass. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 411 – Pond Site 411 is located to the east of I-4, within SR 472 interchange. This pond site is primarily mowed Bahia grass. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 418 – Pond Site 418 is located to the west of Dr. Martin Luther King Jr. Beltway, between SR 472 and Cassadaga Road. This pond site is primarily comprised of sand pine with some scrub live oak, laurel oak, and palmetto. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Newly proposed ponds include ponds 401, 402B, 402C, 402D, 402E, 402F, FPC 403, 403, 406B, FPC 407, 407B, 407C, Stormwater Vault 408, 408B, 408D1, 409 B1, A, 412, 415, 416, 417, B, B1, and C.

Pond Site 401 – Site 401 is a proposed new pond site located west of I-4, south of the Dirksen Drive/DeBary Avenue interchange. This is an existing FDOT borrow pit that has been proposed as an alternative to the treatment swales (Treatment Swales 401-A and 401-B). The existing borrow pit is primarily open water lined with cabbage palm and cattails. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 402B – Pond Site 402B is a proposed new pond site located to the east of I-4, within the interchange with DeBary Avenue. This is a recommended pond site. The current site is densely forested with slash pine, water oak, and cabbage palm, with elderberry, wax myrtle and various herbaceous species along the edges. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 402C – Pond Site 402C is a proposed new pond site located to the east of I-4, within the interchange with DeBary Avenue. This is a recommended pond site. The current site is densely forested with slash pine, water oak, and cabbage palm, with elderberry, wax myrtle and various herbaceous species along the edges. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 402D – Pond Site 402D is a proposed new pond site located to the west of I-4, within the interchange with Dirksen Drive. This is a recommended pond site. The current site is densely forested with slash pine, and water oak. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 402E – Pond Site 402E is a proposed new pond site located to the east of I-4, within the interchange with DeBary Avenue. This is a recommended pond site. The current site is densely forested with slash pine, and water oak. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 402F – Pond Site 402F is a proposed new pond site located to the east of I-4, northwest of the ramp from westbound I-4 to Dirksen Drive. This is a recommended pond site. The current site is primarily standing water overgrown with willow, primrose, and elderberry. The northwest edge of the proposed pond site is composed of slash pine, sweet bay, Dahoon holly, camphor tree and Chinese tallow. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site FPC 403 – Pond Site FPC 403 is a proposed new floodplain compensation pond located to the west of I-4, between the northern edge of an existing lake and the southern terminus of Goddard Drive. This is a recommended pond site. This is a proposed new floodplain compensation pond. The current site is primarily a mix of dense vegetation primarily comprised of laurel oak, scrub live oak, slash pine, cabbage palm and saw palmetto. The proposed site is located to the east of an existing gas pipeline (**Site #99**). Several piles of discarded wooden debris were observed along the southwestern edge of the site. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 403 – Pond Site 403 is a proposed new pond site located within the I-4 median between the Enterprise Road overpass and the Saxon Boulevard interchange. This is a recommended pond site. The current site consists of multiple vegetated basins surrounded by mowed berms with an area of open water near the center of the proposed pond. The central portion of the site consists of an existing pond which is primarily open water with several large patches of white water lily and is surrounded by a mix of cattails, willow, and various weedy herbaceous species. The vegetated basins to the north and south of the central pond consist primarily of planted cypress and red maple with large patches of cogon grass with some salt bush, willow, wax myrtle, and cattails. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 406B – Pond Site 406B is a proposed new pond site located within the northwest quadrant of the Saxon Boulevard interchange. The current site is densely forested with sand pine, with some scrub live oak and palmetto. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site FPC 407 – Pond Site FPC 407 is a proposed new floodplain compensation pond located within the southeast quadrant of the Saxon Boulevard interchange. This is a recommended floodplain compensation pond. The pond site consists primarily of cabbage palm, slash pine, and laurel oak with rattlebox, Cogon grass, and other herbaceous species

along the edge of the existing right-of-way fence. The northern portion of this proposed pond site consists of the existing maintained right-of-way and ramp. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 407B – Pond Site 407B is a proposed new pond site located within the northeast quadrant of the Saxon Boulevard interchange. The current site is primarily mowed Bahia grass with a patch of un-mowed primrose and willow at the west end of the pond site. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 407C – Pond Site 407C is a proposed new pond site located within the northeast quadrant of the Saxon Boulevard interchange. The current site is densely forested with sand pine with some scrub live oak and palmetto. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Stormwater Vault 408 – Stormwater Vault 408 is a proposed new stormwater vault located along the north side of Saxon Boulevard, to the east of I-4, northwest of the intersection of Saxon Boulevard and Finland Drive which is the recommended site. The current site is entirely single-family residential houses with mowed lawns and ornamental landscaping. No obvious signs of contamination were observed at the site, but there is a potential for hazardous materials to be present in the building materials of the houses or stored at these residences. Therefore, this pond site was given a **MEDIUM RISK** rating.

Pond Site 408B – Pond Site 408B is an alternative pond site located along the south side of Saxon Boulevard, to the east of I-4, between Finland Drive and Diane Terrace. The current site is entirely single-family residential houses. No obvious signs of contamination were observed at the site, but there is a potential for hazardous materials to be present in the building materials of the houses or stored at these residences. Therefore, this pond site was given a **MEDIUM RISK** rating.

Pond Site 408-D1 – Pond Site 408-D1 is located along the south side of Saxon Boulevard, to the east of I-4, between Diane Terrace and Normandy Boulevard. The current site is entirely single-family residential houses. An identified contamination site, Walgreens #07241 (**Site #68**) is located north of Saxon Boulevard, across from this pond site location, but there are no records of and discharges of hazardous materials associated with this facility. No obvious signs of contamination were observed at the site, but there is a potential for hazardous materials to be present in the building materials of the houses or stored at these residences. Therefore, this pond site was given a **MEDIUM RISK** rating.

Pond Site 409-B1 – Pond Site 409-B1 is a proposed new pond site located to the west of I-4, between Saxon Boulevard and the Graves Avenue overpass which is a recommended pond site. The current site is primarily slash pine and live oak with some palmetto and cabbage palm. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site A – Pond Site A is a proposed new pond site located to the west of I-4, to the south of the proposed Rhode Island Avenue extension. The current site is primarily scrub live oak and palmetto with some rusty lyonia, slash pine, and cabbage palm. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site B – Pond Site B is a proposed new pond site located to the west of I-4, along the southern edge of the proposed Rhode Island Avenue extension and is an alternative pond site. The current site is primarily scrub live oak, sand pine, and

palmetto with some turkey oak, fetterbush, and aster. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site B1 – Pond Site B1 is a proposed new pond site located to the west of I-4, along the southern edge of the proposed Rhode Island Avenue extension which is the recommended pond site. The current site is primarily scrub live oak, sand pine, and palmetto with some turkey oak, fetterbush, and aster. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site C – Pond Site C is a proposed new pond site located to the east of I-4, along the southern edge of the proposed Rhode Island Avenue extension. The current site is dominated by sand pine with some scrub live oak, palmetto, turkey oak, fetterbush, and rusty lymonia. This pond site is located within an identified contamination site, Vacant Wooded Parcels (**Site #105**), which was given a medium risk rating based on building materials, household garbage, and heavy metals from bullets and casings found at portions of the site. These potential contamination sources were not observed throughout the Vacant Wooded Parcels, but were generally observed in close proximity to dirt roads and trails, which were not observed within this pond site. Although there is a potential for contamination to be present at portions of the Vacant Wooded Parcels, no evidence of contamination was observed at this proposed pond site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 412 – Pond Site 412 is a proposed new pond site located to the northeast of the SR 472 interchange. This pond site is primarily live oak with some cabbage palm and palmetto. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 415 – Pond Site 415 is a proposed new pond site located to the north of SR 472, between Kentucky Avenue/Dr. Martin Luther King Jr. Beltway and I-4. This pond site is heavily wooded and composed primarily of laurel oak and palmetto with some longleaf and slash pines along the edges. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 416 – Pond Site 416 is a proposed new pond site located to the west of Kentucky Avenue, between Graves Avenue and SR 472. This pond site is primarily comprised of sand pine with some scrub live oak, laurel oak, and palmetto. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 417 – Pond Site 417 is a proposed new pond site located to the southwest of the Kentucky Avenue/Dr. Martin Luther King Jr. Beltway and SR 472. This pond site is primarily comprised of mixed pines, laurel oak, and palmetto. A pile of concrete rubble, a raised area of soil, and dilapidated building materials that could have potentially been a structure were observed at the site. This pond site was given a **MEDIUM RISK** rating based on the potential for hazardous material to be present in the observed items present at the site.

Two new treatment swale alternatives are proposed adjacent to the roadway along the causeway across Lake Monroe and the DeBary Bayou.

Treatment Swale 401A – Treatment Swale 401A is a proposed new treatment swale alternative located parallel to I-4 on the western side of the right-of-way between the St. Johns River Bridge and the Padgett Creek Bridge. The existing swale within the right-of-way includes torpedo grass, alligator weed, cattail, fire flag, pickerel weed, and arrowhead. The

vegetation west of the right-of-way includes cabbage palm, marshmallow, and cattails. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Treatment Swale 401B – Treatment Swale 401B is a proposed new treatment swale located parallel to I-4 on the eastern side of the right-of-way between the St. Johns River Bridge and the Padgett Creek Bridge which is the recommended treatment swale. The existing right-of-way is paved up to the boundary fence at this location, but the other side of the fence is heavily vegetated with a mix of vegetation which includes cabbage palm, marshmallow, willow, wax myrtle, elm, ash, Chinese tallow, salt bush, and elderberry. Numerous discarded items were observed on the eastern side of the current right-of-way fence, but no obvious signs of materials that would be considered hazardous were identified. Therefore, this pond site was given a **LOW RISK** rating.

5.3 Adjacent Properties

A total of one hundred thirty three (133) sites or properties within 0.50 miles of the current I-4 right-of-way, proposed pond sites, and proposed right-of-way for the Rhode Island Avenue extension were identified by searches in the FDEP contamination database or by field inspections. **Table 1** lists an assigned site number corresponding with the facility name and location. The sites are numbered on the Contamination Site maps (See **Figure D**, in **Appendix A**) and pictured in their present condition (**Appendix B**) in order of south to north, west to east.

TABLE 1 – POTENTIAL CONTAMINATION SITES LISTING

Site #	Facility Name	Location
1	FPL Sanford Plant	950 S US 17/92
2	City of DeBary Brownfield Area	S US 17/92
3	FDOT Vacant Property, formerly DeBary Tank No. 3	902 S US 17/92
4	Granite Construction Site	10 Buckley Dr.
5	DeBary Radiator	798 S US 17/92
6	Clayton & Sons Salvage Yard	761 S US 17/92
7	Adkins Truck Repair, formerly Sunbelt Auto Carriers	681 S US 17/92
8	Private Residence listed as Rich Frary Home Improvement Inc.	226 Toms Rd.
9	Duke Energy Florida Turner Plant #B	433 Lakefront Ct.
10	Private Residence listed as Certified Renovations LLC	346 Magnolia Pl.
11	The Pantry and Kangaroo Express #1269	312 Dirksen Dr.
12	Lil Sammy's Food Mart	400 Welcome Center Dr.
13	Deltona LS #5 Generator	Welcome Center Dr.
14	Travelodge, formerly Deltona Best Western Motel	481 Deltona Blvd.
15	FDOT Diesel Powered Generator	I-4 Right-of-Way, north of DeBary Ave.
16	Private Residence listed as Allgood Towing LLC	332 Gardenia Ave.
17	City of Deltona, formerly Harbor Branch Environmental	255 Enterprise Rd.
18	Deltona Middle School	250 Enterprise Rd.
19	Joseph Thomas DPM PA	602 Deltona Blvd.
20	Site listed as Mike Jones Painting	111 Caribbean St.

Site #	Facility Name	Location
21	Physicians Injury Care Center	610 Deltona Blvd.
22	Sunbelt Micro Electronics Inc.	237 Enterprise Rd.
23	Private Residence listed as Midnight Welding & Fabricating	303 Riviera Dr.
24	Private Residence listed as M C Framing	111 Hummingbird St.
25	Private Residence listed as Frank Jones Towing Service	112 Hummingbird St.
26	City of DeBary Bill Keller Park	338.5 Colomba Rd.
27	Private Residence listed as Richard Crews Painting Corporation	692 Pepperwood Ave.
28	Private Residence listed as Prophotos	200 May Pl.
29	Deltona Fountains Plaza Multiple Businesses	777 Deltona Blvd.
30	Deltona Discount Market, formerly Deltona Citgo and Cumberland Farms #0988	785 Deltona Blvd.
31	Deltona Shell, formerly First Coast Energy #2519 and Amoco Service Station #60134	801 Deltona Blvd.
32	David All DDS	780 Deltona Blvd. Ste. 106
33	Muffler Man, formerly Shell First Coast Energy #3101 and Deltona BP #24521	790 Deltona Blvd.
34	Bessette Family Chiropractic	809 Deltona Blvd. Ste. C
35	Circle K #4385	819 Deltona Blvd.
36	Justin Square Plaza Multiple Businesses	840 Deltona Blvd.
37	Andy's Seven LLC, Lil Sammy's Food Mart, formerly Lil Champ Food Stores	896 Deltona Blvd.
38	Deltona Food Station, formerly Deltona Chevron	900 Deltona Blvd.
39	Michael Zerivitz DDS	916 Deltona Blvd.
40	Weeks Seafood Delivery Spill Site	I-4 Median north of Enterprise Rd. overpass
41	OC Collision Center, formerly Joe's Body Shop	321 E Highbanks Rd.
42	Residential Building Supply	327 E Highbanks Rd.
43	Enterprise Industrial Park Multiple Businesses	3063 Enterprise Rd.
44	Private Residence listed as Jose's Auto Detailing	1024 Embassy Dr.
45	Private Residence listed as Lockhart Painting Services Inc.	274 Cloverleaf Blvd.
46	Private Residence listed as C & V Painting & Remodeling LLC	1046 Embassy Dr.
47	Private Residence listed as Jesse M Powers	1097 Eagles Nest Ave.
48	Site listed as Pell's Citrus & Nursery	3003 Enterprise Rd.
49	Ace Air Conditioning, formerly Pool World of Volusia Inc.	2985 Enterprise Rd.
50	Private Residence listed as All Site Home Improvement	72 Spring Lake Dr.
51	Nancy's Nails	2955 Enterprise Rd. Ste. 105
52	Private Residence listed as D & R Painting & Home Remodeling	1184 Embassy Dr.
53	Deltona Boulevard Economic Development Zone	1200 Deltona Blvd.

Site #	Facility Name	Location
54	Deltona Plaza Multiple Businesses	1200 Deltona Blvd.
55	Private Residence listed as R White Photography LLC	511 Donaldson Dr.
56	Humberto A Dominguez MD	70 Fox Ridge Ct.
57	Maria Suarez DDS	75 Fox Ridge Ct.
58	Private Residence listed as Robert Rosenberger Enterprises	1265 Fowler Dr.
59	Cordoba Orthodontics	90 Fox Ridge Ct.
60	Joseph V Calderone DMD	415 Summerhaven Dr.
61	Deltona Utilities	338 Diamond St.
62	Private Residence listed as Chris Bailey Painting	1332 Gaynor Ct.
63	Private Residence listed as Mike Gerkin	1357 Fowler Dr.
64	Private Residence listed as Paint on Demand Inc.	332 Kettering Rd.
65	Private Residence listed as Fernando Auto Electric	1423 Wellington Dr.
66	E Z Play Internet Café, formerly Crown Cleaners	2120 Saxon Blvd. Ste. 201
67	Allure Nail Spa	2120 Saxon Blvd. Ste. 204
68	Walgreens #07241	1700 N Normandy Blvd.
69	Florida Injury/Family Cosmetic Dentistry	942 Saxon Blvd.
70	Circle K #5979	1030 Saxon Blvd.
71	RaceTrac #641	1298 Saxon Blvd.
72	Saxon Square Plaza Multiple Businesses	1209 Saxon Blvd.
73	Deltona Citgo, formerly Chevron Saxon Boulevard and Expert Car Care	2123 Saxon Blvd.
74	Saxon Plaza Multiple Businesses	2031, 2063, 2089 Saxon Blvd.
75	Deltona Memorial Gardens Maintenance Facility	1297 Saxon Blvd.
76	Cell Tower with Diesel Generator	2091 Saxon Blvd.
77	Lowes #467	901 Saxon Blvd.
78	Florida Hospital Fish Memorial	1055 Saxon Blvd.
79	Wal-Mart Supercenter #563	2400 Veterans Memorial Pkwy.
80	Private Residence listed as D & T Tires Inc.	2092 S Parkton Dr.
81	Private Residence listed as RS Painting Solutions Inc.	548 Glancy Dr.
82	Private Residence listed as Carmen Torres Affordable Construction	400 Taylorville St.
83	Private Residence listed as JNF Improvements & Services Inc.	424 Taylorville St.
84	Private Residence listed as Niaples Painting	540 Baldwin Ct.
85	Private Residence listed as Miracle Brothers Site Development Corporation	401 Jeffers St.
86	Home Depot #6323	2300 Veterans Memorial Pkwy.
87	Private Residence listed as Hauling for Cheap	451 Rockford St.
88	Private Residence listed as New World Painting	516 Dustin Ter.

Site #	Facility Name	Location
89	Private Residence listed as Don's Acrylic Decking Inc.	520 Everett St.
90	Private Residence listed as GD Painting	2009 Parkton Dr.
91	Private Residence listed as SDQ Air & Mechanical Inc.	573 Sullivan St.
92	Private Residence listed as Jimmy's Auto Detailing	2068 Apricot Dr.
93	Private Residence listed as Creations	521 Antelope Dr.
94	Private Residence listed as Reliable Painting	561 Antoinette St.
95	Private Residence listed as The Immaculate Reign	2189 Normandy Blvd.
96	Private Residence listed as Arnaldo Torres LLC	553 Gifford Ct.
97	Private Residence listed as Reliable Computers	502 Annapolis Dr.
98	Four Towns Wastewater Treatment Plant	100 E Iris Dr.
99	Florida Gas Transmission Company Gas Pipeline	W of I-4
100	Halifax Health Hospice Care Center	1625 Veterans Memorial Pkwy.
101	Private Residence listed as Eric Ray Frankton	2208 Firwood Dr.
102	Private Residence listed as Chico Kools Technologies	686 Vicksburg St.
103	Deltona Utilities Vicksburg Facility	880 Vicksburg St.
104	City of Deltona WTP #17	2308 N Normandy Blvd.
105	Vacant Wooded Parcels	East of I-4 south of SR 472 interchange
106	CNH Structural LLC	1477 S Leavitt Ave.
107	Harty Tractor Services Inc., including Land Clearing Debris Site	924 E Rhode Island Ave.
108	Cell Tower with Diesel Powered Generator	S Leavitt Ave.
109	Orange City Area Debris Staging Area	Veterans Memorial Pkwy./E Rhode Island Ave.
110	The Pines Golf Club and Maintenance Facility	1715 Monastery Rd.
111	G.E.L. Corporation Site	1200 Leavitt Ave.
112	Aquaticart Designs and Pioneer Woodcraft Corporation	914 Shadick Dr.
113	Harry's Towing Services Inc.	922 Shadick Dr.
114	Stephen's Motorworks Inc., formerly Servello & Son Inc.	954 Shadick Dr.
115	Santiago Auto Body, formerly Garland Transmissions	978 Shadick Dr.
116	Site listed as West Volusia Welding	986 Shadick Dr.
117	Juan Carlos Auto Repair, formerly IFEC Auto Repair and MC Auto Repair	1046 Shadick Dr.
118	Keller's Storage & Work Shop, formerly Harris Mobile Recycling	1054 Shadick Dr.
119	Multiple Businesses located at 1070 Shadick Drive	1070 Shadick Dr.
120	Gator Radiator LLC	1078 Shadick Dr.
121	Chinchor Electric Inc.	941 Shadick Dr.
122	Universal Packaging & Machinery Sales Corporation	965 Shadick Dr.

Site #	Facility Name	Location
123	A&J Auto Repair, formerly RC Auto Sales Inc.	1067 Shadick Dr.
124	Former Site of Attachment Sales Inc.	1091 Shadick Dr.
125	John Knox Village	101 North Lake Dr.
126	Private Residence listed as Hancock Painting	552 Sherwood Oaks Rd.
127	Orange City RV Resort and site listed as Ed Young's Painting & Pressure Cleaning	2300 E Graves Ave.
128	RaceTrac #2334	3201 Howland Blvd.
129	Orange City Village Square Plaza Multiple Businesses	2401, 2411 E Graves Ave.
130	Maschmeyer Concrete Deltona, formerly Inland Materials Inc.	3296 Howland Blvd.
131	Cemex Orange City Ready-Mix Plant	2170 SR 472
132	Kobrin Builders Supply Inc.	2121 SR 472
133	Sieg & Ambachtsheer Inc.	1445 Cassadaga Rd.

*NOTE: Information regarding these facilities was obtained from the FDEP files and available databases. This information and limited visual inspection of these facilities was used to determine the contamination ratings in **Table 3 (Section 8.0)**.

5.4 Regulatory Agency Review

A records review was conducted for any known contamination sites via the FDEP OCULUS electronic database site. Using the FDEP Map DIRECT database and field verified business names and addresses, available information for each site was reviewed to determine the nature of hazardous material(s) involvement. Records were reviewed for materials manufactured, stored, generated, or transported on the site. Each identified site will be discussed in terms of whether contamination or violations have occurred on the site, the extent of contamination present in the soil and/or groundwater, groundwater direction, and clean-up status of any known contamination issues. Photographs of all potential contamination sites are provided in **Appendix B**. Site diagrams including direction of groundwater flow for sites with known contamination are provided in **Appendix D**, where available.

Site 1 – FPL Sanford Plant (FLD000807784, 64/8516621) – This large power plant is located along the St. Johns River in Volusia County at 950 S US 17/92. It is currently listed as a conditionally exempt small quantity generator and has four very large registered ASTs containing fuel oil, a 500 gallon used oil AST, and a solid oily debris dumpster located on site. Historically a coal powered plant, it opened in 1925 at a much lower capacity and has been in operation ever since, but now is primarily an oil fueled plant. Many locations of contamination were identified at the site in the early 1990's from several sources during an effort to voluntarily clean the site. In addition to this, four recorded discharges of fuel oil were reported between 1992 and 1999. These reported discharges were later granted No Cleanup Required or No Further Action status. Source removal of fifteen identified contamination sites within the property boundaries was primarily conducted between 1995 and 1997. The sites where source removal was used are listed as: Old Intake #1 & 2 (B-4) Basin, Train Tracks/Coal Crusher, Paint House Sump, Coal/Oil Mix Ash Landfill, Historic Basin, Permitted Drying Basin, Abandoned Oil Dock, Historic Landfill, Old & New Switchyards, North Metering Tanks, South Metering Tanks, Buildings 1 & 2 Cleanout, Coal Crusher Pad, L & D Tanks, and French Drains. No Resource Conservation and Recovery Act (RCRA) hazardous waste were discovered during the source removals, but asbestos containing materials were found in the Historic Landfill. The excavated debris and materials were removed and disposed of properly and replaced with clean fill. The facility was inspected in September 2007 without any violations or areas of concern and the remaining four ASTs were in compliance as of September 2011. This site is rated **LOW RISK** due to its distance (0.48 miles northwest) from the right-of-way, large

scale voluntary source removal activities that have been conducted, the status of the reported discharges, and it was in compliance as of its most recent inspection.

Site 2 – City of DeBary Brownfield Area (BF641401000) – This brownfield area extends along the US 17/92 corridor from Barwick Road to Dirksen Drive. The area was established in January 2014 in an effort to stimulate redevelopment and economic growth. The designation as a brownfield was based on perceived pollution from the historical and current presence of potential sources of contamination, but no specific documented releases of contamination were found in the records for this brownfield. Five identified potential contamination sites were identified within this brownfield which were evaluated for this project and are described separately (see **Sites #3, #4, #5, #6, and #7**). The limits of this brownfield are located approximately 0.41 miles northwest of the I-4 right-of-way, but are approximately 0.05 miles northwest of Pond Site 400. This site is rated **LOW RISK** due to no additional source of contamination identified beyond other potential contamination sites described separately and no observed signs of contamination within the brownfield where it is closest to Pond Site 400.

Site 3 – FDOT Vacant Property, formerly DeBary Tank No. 3 (64/9803356) – This former LUST site is located at 902 South US 17/92. After acquiring this parcel, FDOT contractors encountered three 600 gallon USTs used for storing diesel fuel, kerosene, and leaded/unleaded gasoline. The ASTs were removed in June 2000, but evidence of groundwater contamination was detected. Carbon-filtered groundwater remediation was conducted following the removal of the tanks and treated approximately 145,000 gallons of water. Subsequent groundwater testing confirmed that contamination levels had dropped below their target levels, clearing the site for construction. This site is currently vacant and no obvious signs of contamination were observed. This site is located approximately 0.44 miles west of Pond Site 400 and approximately 0.55 miles northwest of the existing right-of-way. This site is rated **LOW RISK** due to the groundwater contamination having been remediated and its distance from Pond Site 400.

Site 4 – Granite Construction Site (64/9804633) – This former AST site was located at 10 Buckley Drive. A 4,000 gallon capacity AST for gasoline and diesel fuel and a 12,000 gallon capacity AST for diesel fuel were installed at the site in February 2002. The ASTs were removed in October 2004 without any reported discharges of contamination. This site is shown on FDEP Map Direct as being located at a stormwater retention pond along US 17/92. No obvious signs of contamination were observed at this site or in the immediate vicinity of Buckley Drive. This site is located approximately 0.34 miles west of Pond Site 400 and approximately 0.61 miles northwest of the existing right-of-way. This site is rated **LOW RISK** due to no reported discharges and its distance from Pond Site 400.

Site 5 – DeBary Radiator (FLD984220327) – This automotive repair site that is registered as a conditionally exempt small quantity generator is located at 798 South US Highway 17/92. No reported discharges of contamination were found for this site and no obvious signs of contamination were observed. This site is located approximately 0.43 miles west of Pond Site 400 and approximately 0.73 miles northwest of the existing right-of-way. This site is rated **LOW RISK** due to no reported discharges and its distance from Pond Site 400.

Site 6 – Clayton & Sons Salvage Yard (FLR000074088) – This automotive repair site and salvage yard that is registered as a conditionally exempt small quantity generator is located at 761 South US Highway 17/92. The facility was first inspected in 2001, which revealed multiple violations including failure to clean up contaminated soil. Records indicate that corrective actions were completed and no formal enforcement was initiated as a result of the inspection. A complaint was received by FDEP in 2012 that alleged that this facility routinely releases automotive fluids to the ground. The following inspection of the facility discovered minor violations involving mislabeled containers, but no evidence of a release were reported and

the facility was in compliance by the end of the inspection. This site is located approximately 0.33 miles northwest of Pond Site 400 and approximately 0.67 miles northwest of the existing right-of-way. This site is rated **LOW RISK** due to no confirmed discharges reported and its distance from Pond Site 400.

Site 7 – Adkins Truck Repair, formerly Sunbelt Auto Carriers (FLD982106858) – This automotive repair site that is registered as a conditionally exempt small quantity generator is located at 681 South US Highway 17/92. No reported discharges of contamination were found for this site and no obvious signs of contamination were observed. This site is located approximately 0.44 miles northwest of Pond Site 400 and approximately 0.79 miles northwest of the existing right-of-way. This site is rated **LOW RISK** due to no reported discharges and its distance from Pond Site 400.

Site 8 – Private Residence listed as Rich Frary Home Improvement Inc. (no FDEP #s found) – No records were found for this site that is listed as an unverified small quantity generator by Volusia County. It is listed as being located at 226 Toms Road, which is a private residence. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.49 miles northwest) from the right-of-way.

Site 9 – Duke Energy Florida Turner Plant #B (FLD000623033, 64/9100061, 29360978) – This combustion turbine power plant that is used to meet peak energy demand is located at 433 Lakefront Court. The facility was built in 1970 and consists of several buildings, four combustion turbine engines (peakers) with diesel fuel ASTs, and several large ASTs for fuel oil. The facility was originally registered as a small quantity generator, but is now registered as a conditionally exempt small quantity generator. Six discharges have been reported at this site, but three have received No Further Action status. The discharge in April 1991 between peakers 3 and 4, the discharge in December 1992 at the southeast corner of AST 8, and the discharge in March 1993 around AST 5 have all received No Further Action status. A discharge that was reported in November 1991 between ASTs 7 and 8 was given a priority ranking score of 29 and is being monitored. A discharge that was reported in April 1992 at peakers 1 and 2 are still awaiting cleanup. A discharge that was reported in January 2000 at ASTs 6, 8, and 9 had 594 tons of contaminated soil excavated in 2003, but it is still being monitored for natural attenuation. During the demolition of the facility's steam plant in 1984, inspectors noted possible violations regarding the disposal of lead paint chips, but further inspection found that no hazardous waste had been discharged to the environment. Despite it having three active discharges, this site is rated **LOW RISK** due to its distance (0.50 miles southeast) from the right-of-way and having three discharges that received No Further Action Status. However, caution should be taken if any part of the future construction project takes place closer to this facility.

Site 10 – Private Residence listed as Certified Renovations LLC (no FDEP #s found) – No records were found for this site that is listed as an unverified small quantity generator by Volusia County. It is listed as being located at 346 Magnolia Place, which is a private residence. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.14 miles east) from the right-of-way.

Site 11 – The Pantry and Kangaroo Express #1269 (FLD984199257, 64/9063998) – This LUST retail gas station facility is located at 312 Dirksen Drive. The facility was registered as a small quantity generator in June 1991, but there have been no records of any violations or discharges of hazardous waste reported at this site. Three 10,000 gallon capacity unleaded gasoline USTs were installed at the site in December 1990. A discharge was reported in November 2002 during the replacement of a fuel line. The source and quantity of the discharge was unknown, but the site was given a priority ranking score of 37, which was later increased to 45 in 2012. Initial site assessment and groundwater monitoring was conducted

between 2003 and 2005, which found that soil and groundwater contamination levels exceeded acceptable limits and that groundwater contamination was extending offsite to the southeast. The USTs were replaced with a 20,000 gallon and 8,000 gallon capacity unleaded USTs in 2006. During this replacement, approximately 168,480 gallons of contaminated groundwater was treated and removed along with approximately 713 tons of contaminated soil. This source removal was effective at removing most of the contamination at the site, but several groundwater monitoring wells still had higher than acceptable levels of contamination present. Additional site assessments were conducted, leading to the acceptance of a Natural Attenuation Monitoring Plan for the site in 2008. Contamination levels at the site gradually decreased below the target levels, leading to a No Further Action status being accepted for the site in July 2013. Even though the contamination at the site is now considered clean, it should be noted that a Site Assessment Report and No Further Action Proposal (2013) indicated that shallow groundwater flow is generally to the southeast, and deep groundwater flow is generally to the south, both of which are going toward the right-of-way, but not at its closest proximity (see **APPENDIX D**). Although the site is close (0.06 miles west) to the right-of way and the reported direction of groundwater flow is generally towards the right-of-way, this site is rated **LOW RISK** due to the extensive source removal that was conducted during the UST replacements in 2006, the remaining contamination levels have dropped below the acceptable limits, and No Further Action status was accepted for the site.

Site 12 – Lil Sammy’s Food Mart (64/9600926, 29359951) – This LUST retail gas station facility is located at 400 Welcome Center Drive. Three 10,000 gallon capacity USTs for unleaded gasoline were installed at the site in 1995. A discharge was reported at the site in May 2010 during spill bucket replacements. The spill received a priority ranking score of 45, but records do not indicate the source or severity of the reported discharge and there are no records indicating that any source removal was performed during the spill bucket replacements. Groundwater treatment events were performed in May, July, and September of 2013, with monitoring being conducted between these events. At the time of writing, the most recent monitoring at the site in September 2013 indicated that groundwater contamination levels have decreased, but are still above the target levels. Additional groundwater treatment events and monitoring have been recommended for this site. According to a System Startup Report (2013), groundwater flow at the site is generally to the southeast, away from the right-of-way. Even though this site is still not considered clean, it is rated **LOW RISK** due to the active remediation currently being conducted at the site, the reported direction of groundwater flow, and its distance (0.17 miles east) from the right-of-way.

Site 13 – Deltona LS #5 Generator (no FDEP #s found) – No records were found for this AST site, which is located at Welcome Center Drive. The AST is used with a diesel powered emergency generator and is in a fenced in area used for a lift station. No obvious signs of contamination were observed and the generator and tank appeared to be in good condition. Despite its proximity (0.09 miles east) to the right-of-way, this site is rated **LOW RISK** due to no recorded discharges or observed signs of contamination.

Site 14 – Travelodge, formerly Deltona Best Western Motel (64/8517347) – No records were found for this motel site located at 481 Deltona Boulevard. The site was visited for signs of contamination, but none were found. Despite its proximity (0.09 miles east) to the right-of-way and lack of available contamination documents, this site is rated **LOW RISK** due to it having no reported or observed contamination at the site.

Site 15 – FDOT Diesel Powered Generator (no FDEP #s found) – No records were found for this site. A diesel powered generator with a small AST is located within the right-of-way at the north end of the on-ramp from DeBary Avenue in the eastbound direction. The generator appears to be in good condition with no noticeable signs of contamination. This site is rated as **LOW RISK** due to no records of discharges or observed signs of contamination.

Site 16 – Private Residence listed as Allgood Towing LLC (no FDEP #s found) – No records were found for this site that is listed as an unverified small quantity generator by Volusia County. It is listed as being located at 332 Gardenia Avenue, which is a private residence. The site was reviewed for signs of contamination but none were found. Despite its proximity (0.09 miles west) to the right-of-way, this site is rated **NO RISK** due to the lack of any documented or observed signs of contamination.

Site 17 – City of Deltona, formerly Harbor Branch Environmental (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. The site is located at 255 Enterprise Road, which is currently used by the water department of the City of Deltona. An AST used for a diesel powered emergency generator is located at the facility, but there were no obvious signs of contamination observed in association with it. This site is rated **LOW RISK** due to the lack of any documented or observed signs of contamination and its distance (0.43 miles east) from the right-of-way.

Site 18 – Deltona Middle School (no FDEP #s found) – This site is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is listed as being located at 250 Enterprise Road. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.48 miles east) from the right-of-way.

Site 19 – Joseph Thomas DPM PA (no FDEP #s found) – No records were found for this doctor office that is listed as a conditionally exempt small quantity generator by Volusia County and located at 602 Deltona Boulevard. The site was reviewed for signs of contamination but none were found. Despite its proximity (0.03 miles east) to the right-of-way, this site is rated **LOW RISK** due to the lack of any documented or observed signs of contamination.

Site 20 – Site listed as Mike Jones Painting (no FDEP #s found) – No records were found for this site that is listed as an unverified small quantity generator by Volusia County. It is listed as being located at 111 Caribbean Street, which is an apartment building. The site was reviewed for signs of contamination but none were found. Despite its proximity (0.08 miles east) to the right-of-way, this site is rated **NO RISK** due to the lack of any documented or observed signs of contamination.

Site 21 – Physicians Injury Care Center (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is located at 610 Deltona Boulevard, which is a small office building. The site was reviewed for signs of contamination but none were found. Despite its proximity (0.03 miles east) to the right-of-way, this site is rated **NO RISK** due to the lack of any documented or observed signs of contamination.

Site 22 – Sunbelt Micro Electronics Inc. (FLD982127714) – This closed facility is located at 237 Enterprise Road. The facility was registered as a small quantity generator in 1989, but there are no records of any violations or discharges of hazardous waste. This site is rated **LOW RISK** due to no reported discharges of hazardous waste and its distance (0.44 miles east) from the right-of-way.

Site 23 – Private Residence listed as Midnight Welding & Fabricating (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is listed as being located at 303 Riviera Drive, which is a private residence. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.28 miles west) from the right-of-way.

Site 24 – Private Residence listed as M C Framing (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is listed as being located at 111 Hummingbird Street, which is a small apartment building. The site was reviewed for signs of contamination but none were found. Despite its proximity (0.08 miles east) to the right-of-way, this site is rated **NO RISK** due to the lack of any documented or observed signs of contamination.

Site 25 – Private Residence listed as Frank Jones Towing Service (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is listed as being located at 112 Hummingbird Street, which is a small apartment building. The site was reviewed for signs of contamination but none were found. Despite its proximity (0.08 miles east) to the right-of-way, this site is rated **NO RISK** due to the lack of any documented or observed signs of contamination.

Site 26 – City of DeBary Bill Keller Park (no FDEP #s found) – No records were found for this AST site that is located at 338.5 Colomba Road. A diesel powered emergency generator with a small AST is located along the western edge of the facility. The site was reviewed for signs of contamination but none were found. This site is rated **LOW RISK** due to the lack of any documented or observed signs of contamination and its distance (0.18 miles west) from the right-of-way.

Site 27 – Private Residence listed as Richard Crews Painting Corporation (no FDEP #s found) – No records were found for this site that is listed as an unverified small quantity generator by Volusia County. It is listed as being located at 692 Pepperwood Avenue, which is a private residence. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.25 miles east) from the right-of-way.

Site 28 – Private Residence listed as Prophotos (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is located at 200 May Place, which is a private residence. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.31 miles west) from the right-of-way.

Site 29 – Deltona Fountains Plaza Multiple Businesses (64/9700238) – This plaza is located at 777 Deltona Boulevard and has three separate listings for contamination facilities, which include Deltona Plaza Cleaners, Technical Systems Inc., and Mountain Medical Center. No records were found for the closed facility, Deltona Plaza Cleaners, which used dry cleaning solvents and was issued an FDEP number (64/9700238). No records were found for Technical Systems Inc., which appears to no longer be located at this address but is listed as a small quantity generator by Volusia County but was not a generator of hazardous waste. Mountain Medical Center is currently located here and is a medical facility that is listed as a small quantity generator by Volusia County but is not a generator of hazardous waste. The plaza was reviewed for signs of contamination, but none were found. Despite its proximity (0.09 miles east) to the right-of-way and lack of available contamination documents, this site is rated **LOW RISK** due to no reported or observed contamination at the site.

Site 30 – Deltona Discount Market, formerly Deltona Citgo and Cumberland Farms #0988 (FLD984224998, 64/8517320) – This retail gas station facility is located at 785 Deltona Boulevard. It was registered as a small quantity generator when it was a Cumberland Farms in 1991, but no records of any violations or discharges involving hazardous waste have been reported. Tank registration records indicate that three 8,000 gallon capacity USTs for unleaded gasoline were installed in 1977 and replaced with three USTs of the same size and for the same purpose in 1994. There are no records involving the

replacement of these tanks available. The facility had a fire in February 2009, and several recent violations for failing to test release detection devices annually and for failure to keep required records. However, there have been no reports of contamination at the site and it is in compliance as of May 2013. Even though there is a lack of records regarding the replacement of the tanks and the fire in 2009, this site is rated **LOW RISK** due to there being no reported discharges of petroleum or hazardous waste, its distance (0.15 miles east) from the right-of-way, and it was in compliance as of its most recent inspection.

Site 31 – Deltona Shell, formerly First Coast Energy #2519 and Amoco Service Station #60134 (FLD984214403, 64/8841506, 64/8517545, 29367121) – This retail gas station facility is located at 801 Deltona Boulevard. It was registered as a small quantity generator in 1991. The site was originally named Mel’s Amoco #6013, which was registered as having two 4,000 gallon capacity leaded gasoline USTs and two 4,000 gallon capacity unleaded gasoline USTs. There are no records of the closure or replacement of these original USTs, but four 10,000 gallon capacity unleaded gasoline USTs were installed at the site in May 1988. A discharge of an unknown quantity was reported in October 1988 from an unknown source and was given a priority ranking score of 30. Another discharge was reported in 1991, but it was attributed to the 1988 discharge. The USTs were removed and replaced with two 12,000 gallon capacity unleaded USTs in 2010. During excavation, soil samples all had contamination levels below acceptable limits and the USTs appeared to be in good condition. However, there are no records of any source removal activities and the 1988 discharge is still considered active. A Supplemental Site Assessment Report (2006) indicated that groundwater flow is generally to the northeast (parallel) to the right-of-way. The site has had several minor violations, but none led to a discharge and the site was in compliance as of May 2012. Even though this site still has an active discharge that has not been considered cleaned, it is rated **LOW RISK** because the original USTs were replaced without finding any elevated levels of contamination or leaks, the reported direction of groundwater flow, its distance (0.18 miles east) from the right-of-way, and it was in compliance as of its most recent inspection.

Site 32 – David All DDS (no FDEP #s found) – No records were found for this dentist office that is listed as a conditionally exempt small quantity generator by Volusia County and located at 780 Deltona Boulevard Suite 106. The site was reviewed for signs of contamination but none were found. Despite its proximity (0.10 miles east) to the right-of-way, this site is rated **LOW RISK** due to the lack of any documented or observed signs of contamination.

Site 33 – Muffler Man, formerly Shell First Coast Energy #3101 and Deltona BP #24521 (FLD984209163, 64/8517346, 29361984) – This former LUST retail gas station and current automobile repair shop is located at 790 Deltona Boulevard. The facility was registered as a small quantity generator in 1991. Three 10,000 gallon capacity USTs were installed at the site in 1970 for gasoline. They were replaced with another three 10,000 gallon capacity gasoline USTs in 1988 along with a 550 gallon waste oil UST. A discharge of an unknown quantity of unleaded gasoline was reported in 1992 from an unknown source, which was given a priority ranking score of 30. In 1993, the closure of an oil/water separator was performed at the facility that included the abandonment and excavation of a dry well in the drain field. During this closure, approximately 44 tons of contaminated soil was excavated and 1,082 gallons of liquid sludge was removed for disposal. The three gasoline USTs were removed and replaced again in 1998 with three of the same size and for the same purpose. There are no records indicating that additional soil excavation or groundwater treatment was conducted at that time. A closure report is not available, but records indicate that the USTs, including the waste oil UST, were taken out of service in 2004 and were not replaced. Natural attenuation monitoring found that contamination levels at the site were dropping between 1998 and 2001, but there are no documents that detail the current levels of contamination at the site and the 1992 discharge is still considered active. Although some source removal activities have taken place, site monitoring between 1998 and 2001

indicated that contamination levels had been dropping, the site is no longer a retail gasoline service station, and there have been no reported discharges from the automobile repair shop, it is rated **MEDIUM RISK** due to no available documents that detail the current levels of contamination, the 1992 discharge at the site is still considered active, and the moderate proximity (0.13 miles east) of the site from the right-of-way.

Site 34 – Bessette Family Chiropractic (no FDEP #s found) – No records were found for this doctor office that is listed as a conditionally exempt small quantity generator by Volusia County and located at 809 Deltona Boulevard Suite C. The site was reviewed for signs of contamination but none were found. This site is rated **LOW RISK** due to the lack of any documented or observed signs of contamination and its distance (0.17 miles east) from the right-of-way.

Site 35 – Circle K #4385 (FLD984254466, 64/8622861) – This retail gas station facility is located at 819 Deltona Boulevard. It was registered as a conditionally exempt small quantity generator in 1993, but no records of any violations or discharges involving hazardous waste have been reported. Three 10,000 gallon capacity USTs for unleaded gasoline were installed at the site in 1985. Records indicate that a discharge was reported in 1997, but the source and severity of the discharge is not available. The three USTs were retrofitted with a secondary containment system in 2006. During this procedure, approximately 23 tons of contaminated soil and pea gravel was removed from the area around the spill bucket and dispensers. This source removal satisfied cleanup requirements at the site, but a No Further Action status was not accepted without further site assessment. There have been several recent violations involving severe corrosion in parts of the sumps, but it was in compliance as of November 2012. Despite a No Further Action status not being accepted for the 1997 discharge, this site is rated **LOW RISK** due to the source removal activities that took place during tank retrofitting, that there have been no other reported discharges, and its distance (0.19 miles east) from the right-of-way.

Site 36 – Justin Square Plaza Multiple Businesses (FLD981030711) – This plaza is located at 840 Deltona Boulevard and has two separate listings for contamination facilities. No records were found for the closed facility, ANJ Dry Cleaners (FLD981030711). No records were found for Back in Action Chiropractic, which is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. The plaza was reviewed for signs of contamination, but none were found. Despite a lack of available contamination documents, this site is rated **LOW RISK** due to no reported or observed contamination at the site and its moderate distance (0.12 miles east) from the right-of-way.

Site 37 – Andy’s Seven LLC, Lil Sammy’s Food Mart, formerly Lil Champ Food Stores (FLD984199240, 64/8631469) – This retail gas station facility is located at 896 Deltona Boulevard, approximately 0.10 miles east of the right-of-way. It was registered as a small quantity generator in 1991, but no records of any violations or discharges involving hazardous waste have been reported. Two 8,000 gallon capacity unleaded gasoline USTs and an 8,000 gallon capacity leaded gasoline UST were installed at the site in 1986. Visual signs of a discharge were reported in 1992, but the content and the cause of the discharge were unknown; the site received a priority ranking score of 50. The three USTs were removed in 2008 and were replaced with a single 15,000 gallon capacity unleaded gasoline UST, but there are no records of any source removal activities taking place at the time of the excavation or of the condition of the tanks. Groundwater monitoring wells all had contamination levels below the acceptable limits in 2011, which led to the site being accepted for No Further Action status in September 2013. Several minor violations have been recorded at the site, but none led to a discharge and the site was in compliance as of its most recent inspection in January 2013. This site is rated **LOW RISK** due to the only discharge that was reported received a No Further Action status and the site was in compliance as of its most recent inspection.

Site 38 – Deltona Food Station, formerly Deltona Chevron (FLD984208421, 64/8517348) – This retail gas station facility is located at 900 Deltona Boulevard, approximately 0.10 miles east of the right-of-way. The facility formerly included a three

bay automobile service station and was registered as a small quantity generator in 1991. A 10,000 gallon and a 5,000 gallon capacity unleaded gasoline UST, a 10,000 gallon capacity leaded gasoline UST, and a 550 gallon used oil UST were installed at the site in 1970. There are no available tank closure or replacement reports, but the original USTs were replaced with three 10,000 gallon capacity unleaded gasoline USTs and a 1,000 gallon capacity used oil AST in 1984. Records indicate that a discharge was reported in 1992, but the source and severity of the discharge is not available; it was given a priority ranking score of 50. Subsequent monitoring of the site found that contamination was below the acceptable levels, leading to the site being accepted for No Further Action Status in 1993. A complaint was received in 2001, alleging that the facility was illegally disposing of oil filters and car batteries in a dumpster. An inspection of the facility did not find any evidence that the illegal activity had been taking place. Several small oil spills were observed in the shop area, but they had not been discharged into the environment. The three USTs were replaced with a compartmentalized UST of an unknown size in 2006. At the time of excavation, the USTs all appeared to be in good condition without noticeable holes and soil samples from around them did not indicate elevated levels of contamination. Several violations and an incident report was filed in 2010 for having free product in the sumps (diesel and unleaded gasoline), but a discharge of contamination was not recorded. The site is in compliance as of April 2013. This site is rated **LOW RISK** due to its only reported discharge receiving a No Further Action status, the complaint regarding illegal dumping was found to be invalid, and it is currently in compliance.

Site 39 – Michael Zerivitz DDS (no FDEP #s found) – No records were found for this dentist office that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is located at 916 Deltona Boulevard, which is a small office building. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its moderate distance (0.10 miles east) from the right-of-way.

Site 40 – Weeks Seafood Delivery Spill Site (64/9805552, 29361984) – This trucking accident occurred during August 2002 in the eastbound median of I-4 in the vicinity of mile marker 109, just north of the Enterprise Road overpass. When the truck lost control and crashed through temporary concrete barricades, a fuel tank was ruptured that released an estimated 40 gallons of diesel fuel into the soil. Emergency response noted that an area approximately 5 feet by 25 feet was impacted by the spill. The impacted site was cleaned the same day, removing an area of soil ten feet by thirty feet to a two foot depth (approximately 25 tons). Soil samples revealed elevated lead levels, which could not be explained by the release of diesel fuel. Even though seemingly extensive source removal was conducted promptly, the site was not considered clean because the responsible party did not proceed with a Site Assessment, and lead concentrations in the soil required further testing. The site initially received a priority ranking score of 25, but was increased to 29 in 2010. This site is not placed correctly on FDEP's Map Direct, which places it south of the Enterprise Road overpass. An Emergency Response Cleanup Report (2002) documents the correct location of the spill site (see **Appendix D** for the correct spill location). Although a relatively low volume of diesel fuel was released from the accident and prompt source removal activities were conducted, this site is rated **MEDIUM RISK** due to the presence of elevated lead concentrations in the soil that were not explained or tested further, the fact that the site is still not considered clean, and it is located within the right-of-way.

Site 41 – OC Collision Center, formerly Joe's Body Shop (FLD984252536) – This vehicle maintenance facility is located at 321 East Highbanks Road. The facility was registered as a conditionally exempt small quantity generator in 1993, but there have been no reported violations or discharges of hazardous waste. This site is rated **LOW RISK** due to no reported discharges of petroleum or hazardous waste and its distance (0.44 miles west) from the right-of-way.

Site 42 – Residential Building Supply (64/8735301) – This former UST site is located at 327 East Highbanks Road. Three USTs of an unknown size were removed from the site in 1991. The USTs were used to store unleaded gasoline and diesel fuel and were estimated to be about 20 years old at the time of their removal. No contamination was observed at the time of their removal and there are no other records of potential sources of contamination at the site. This site is rated **LOW RISK** due to no reported discharges of contamination at the site and its distance (0.37 miles west) from the right-of-way.

Site 43 – Enterprise Industrial Park Multiple Businesses (no FDEP #s found) – No records were found for this collection of small businesses that is located at 3063 Enterprise Road which includes a cell tower. The Copy Shoppe, Enterprise Auto Service, and Triple J Auto Sales Inc. are listed as small quantity generators by Volusia County but are not registered generators of hazardous waste. Angels Woodwork Inc. is listed as an unverified small quantity generator by Volusia County. A cell tower that is located here has an AST for use with a diesel powered emergency generator, but the AST appears to be in good condition without any noticeable signs of contamination. Several other unlisted businesses are located here, but there are no indications that they are potential sources of contamination. The site and listed businesses were reviewed for signs of contamination but none were found. Despite its proximity (0.06 miles west) to the right-of-way at its closest point, this site is rated **LOW RISK** due to the lack of any documented or observed signs of contamination.

Site 44 – Private Residence listed as Jose’s Auto Detailing (no FDEP #s found) – No records were found for this site that is listed as an unverified small quantity generator by Volusia County. It is listed as being located at 1024 Embassy Drive, which is a private residence. The site was reviewed for signs of contamination but none were found. Despite its proximity (0.03 miles east) to the right-of-way, this site is rated **LOW RISK** due to the lack of any documented or observed signs of contamination.

Site 45 – Private Residence listed as Lockhart Painting Services Inc. (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is located at 274 Cloverleaf Boulevard, which is a private residence. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.24 miles east) from the right-of-way.

Site 46 – Private Residence listed as C & V Painting & Remodeling LLC (no FDEP #s found) – No records were found for this site that is listed as an unverified small quantity generator by Volusia County. It is listed as being located at 1046 Embassy Drive, which is a private residence. The site was reviewed for signs of contamination but none were found. Despite its proximity (0.03 miles east) to the right-of-way, this site is rated **LOW RISK** due to the lack of any documented or observed signs of contamination.

Site 47 – Private Residence listed as Jesse M Powers (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is listed as being located at 1097 Eagles Nest Avenue, which is a private residence. The site was reviewed for signs of contamination but none were found. Despite its proximity (0.08 miles east) to the right-of-way, this site is rated **NO RISK** due to the lack of any documented or observed signs of contamination.

Site 48 – Site listed as Pell’s Citrus & Nursery (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is listed as being located at 3003 Enterprise Road, which is currently a small office building. The site was reviewed for signs of contamination

but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.23 miles west) from the right-of-way.

Site 49 – Ace Air Conditioning, formerly Pool World of Volusia Inc. (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is located at 2985 Enterprise Road and stores various pool chemicals. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.31 miles west) from the right-of-way.

Site 50 – Private Residence listed as All Site Home Improvement (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is located at 72 Spring Lake Drive, which is a private residence. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.22 miles west) from the right-of-way.

Site 51 – Nancy’s Nails (no FDEP #s found) – No records were found for this retail nail salon located at 2955 Enterprise Road Suite 105. This facility is rated as **LOW RISK** due to the lack of any documented records or observed signs of contamination and its distance (0.35 miles east) from the right-of-way.

Site 52 – Private Residence listed as D & R Painting & Home Remodeling (no FDEP #s found) – No records were found for this site that is listed as an unverified small quantity generator by Volusia County. It is listed as being located at 1184 Embassy Drive, which is a private residence. The site was reviewed for signs of contamination but none were found. Despite its proximity (0.03 miles east) to the right-of-way, this site is rated **LOW RISK** due to the lack of any documented or observed signs of contamination.

Site 53 – Deltona Boulevard Economic Development Zone (BF641204000) – This brownfield area includes the entirety of the Deltona Plaza, 1200 Deltona Boulevard, along with its adjacent wooded areas and the commercial lots along Stratford Commons to the north of the plaza. The area was established in September 2012 in an effort to stimulate economic growth in a plaza that is mostly vacant. The designation as a brownfield was based on perceived pollution from the historical and current presence of dry cleaning facilities, but no documented releases of contamination can be found. Two businesses that are listed as small quantity generators by Volusia County and a retail nail salon are located here (listed below, **Site 54**) but no records were found for them. This site is rated **LOW RISK** due to no recorded discharges of contamination and its moderate distance (0.10 miles east) from the right-of-way.

Site 54 – Deltona Plaza Multiple Businesses (FLR000037929, 64/9802118) – This plaza includes four identified potential sources of contamination and is part of the Deltona Boulevard Economic Development Zone brownfield area (listed above, **Site 53**). The plaza is located at 1200 Deltona Boulevard. No records were found for Tropical Image Salon, which is a retail nail salon located at Suite 48. No records were found for Val U Vet Animal Health Inc., which could not be located but is listed as an unverified small quantity generator by Volusia County. No records were found for Deltona Driving School, which could not be located but is listed as a small quantity generator by Volusia County though is not a registered generator of hazardous waste. These sites were reviewed for signs of contamination but none were found. Executive Dry Cleaners, formerly Century Cleaners is located at Suite 58. It was registered as a small quantity generator in December 1997 because of its use of dry cleaning solvents such as perchloroethylene. The site has been inspected several times and was found to be in compliance, but a 2008 inspection recommended that secondary containment was needed for

hazardous waste storage and that the site needed to have better record keeping. This site is rated **LOW RISK** due to no reported discharge of hazardous waste or other contamination and its distance (0.17 miles east) from the right-of-way.

Site 55 – Private Residence listed as R White Photography LLC (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is located at 511 Donaldson Drive, which is a private residence. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its moderate distance (0.11 miles west) from the right-of-way.

Site 56 – Humberto A Dominguez MD (no FDEP #s found) – No records were found for this doctor office that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is located at 70 Fox Ridge Court. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.42 miles west) from the right-of-way.

Site 57 – Maria Suarez DDS (no FDEP #s found) – No records were found for this dentist office that is listed as a conditionally exempt small quantity generator by Volusia County and located at 75 Fox Ridge Court. The site was reviewed for signs of contamination but none were found. This site is rated **LOW RISK** due to the lack of any documented or observed signs of contamination and its distance (0.41 miles west) from the right-of-way.

Site 58 – Private Residence listed as Robert Rosenberger Enterprises (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is located at 1265 Fowler Drive, which is a private residence. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.44 miles east) from the right-of-way.

Site 59 – Cordoba Orthodontics (no FDEP #s found) – No records were found for this dentist office that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is located at 90 Fox Ridge Court. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.44 miles west) from the right-of-way.

Site 60 – Joseph V. Calderone DMD (no FDEP #s found) – No records were found for this dentist office that is listed under the name “Dental Excellence” as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is located at 415 Summerhaven Drive. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.42 miles west) from the right-of-way.

Site 61 – Deltona Utilities (64/8517344) – This UST and AST site is located at 338 Diamond Street. A 2,000 gallon and 1,000 gallon capacity UST for unleaded gasoline and a 1,000 gallon capacity UST for diesel fuel were installed at the site in 1980. A 280 gallon AST for use with a diesel powered emergency generator was installed at the site in 1988. Tank registration records were the only documents available for the site. A chemical container presumably containing chlorine was observed next to a small building, but no signs of a discharge of contamination were found. This site is rated **LOW RISK** due to no reported or observed contamination at the site, and its distance (0.18 miles east) from the right-of-way.

Site 62 – Private Residence listed as Chris Bailey Painting (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is located at

1332 Gaynor Court, which is a private residence. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.49 miles east) from the right-of-way.

Site 63 – Private Residence listed as Mike Gerkin (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is located at 1357 Fowler Drive, which is a private residence. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.30 miles east) from the right-of-way.

Site 64 – Private Residence listed as Paint on Demand Inc. (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is located at 332 Kettering Road, which is a private residence. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.35 miles east) from the right-of-way.

Site 65 – Private Residence listed as Fernando Auto Electric (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is located at 1423 Wellington Drive, which is a private residence. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.49 miles east) from the right-of-way.

Site 66 – E Z Play Internet Café, formerly Crown Cleaners (FLR000098004, 64/9809541) – This former dry cleaning facility is located at 2120 Saxon Boulevard Suite 201. The facility used solvents, including perchloroethylene, and was registered as a small quantity generator in 2003. The facility was out of compliance in 2006 for not having a secondary containment for the hazardous waste containers, but no discharges of hazardous waste was reported. The site was inspected in 2012 after E Z Play Internet Café had moved in, but no violations or areas of concern were found regarding the closed dry cleaning facility. E Z Play Internet Café is listed as a small quantity generator by Volusia County but is not a generator of hazardous waste. Although this site is located adjacent (0.03 miles south) to the right-of-way, this site is rated **LOW RISK** due to the dry cleaning facility being closed with no reported discharges of hazardous materials.

Site 67 – Allure Nail Spa (no FDEP #s found) – No records were found for this retail nail salon located at 2120 Saxon Boulevard Suite 204. Although this site is located adjacent (0.02 miles south) to the right-of-way, this facility is rated as **LOW RISK** due to the lack of any documented records or observed signs of contamination.

Site 68 – Walgreens #07241 (FLR000119149) – This site is located at 1700 North Normandy Boulevard. It is listed as a conditionally small quantity generator because of the pharmaceuticals and batteries it stores. The site is located approximately 0.30 miles east of the Saxon Boulevard/I-4 interchange. This site is rated **LOW RISK** due to no records of contamination associated with this site and the industry in which it is involved.

Site 69 – Florida Injury/Cape Vista Dental (no FDEP #s found) – No records were found for this dentist and medical office located at 942 Saxon Boulevard. Four businesses were listed by Volusia County as being generators at this location, but only one of the businesses is currently present at this location. LAD Imaging LLC and Central Florida Radiology LLC are listed by Volusia County as unverified small quantity generators. Family and Cosmetic Dentistry and Florida Injury are listed as small quantity generators by Volusia County but are not registered generators of hazardous waste. The site was reviewed

for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.33 miles west) from the right-of-way.

Site 70 – Circle K #5979 (64/9804253) – This retail gas station is located at 1030 Saxon Boulevard. A 20,000 gallon capacity unleaded gasoline UST and a 15,000 gallon compartmentalized UST for diesel and unleaded gasoline were installed at the site in 2001. A discharge was reported in October 2005 when an unknown amount of diesel fuel and unleaded gasoline was discovered to have released from a failed spill bucket. Subsequent sampling of the site found that only one monitoring well had contamination levels above the acceptable limits and no soil samples contained elevated levels of contamination. Based on the low levels of contamination, a Natural Attenuation Monitoring plan was accepted for the site in 2007. Contamination levels dropped as expected, leading to the site receiving a No Further Action status in November 2010. The site has been in violation for having excessive corrosion on the sumps and petroleum contacted water in the fill buckets, but the site was in compliance as of December 2012. Although this site is located adjacent (0.01 miles southwest) to the right-of-way, this site is rated **LOW RISK** due to its only discharge receiving a No Further Action status and it was in compliance as of its most recent inspection.

Site 71 – RaceTrac #641 (64/9801812) – This retail gas station is located at 1298 Saxon Boulevard. Three USTs were installed at the site in 1999, a 15,000 gallon and a 12,000 gallon capacity for unleaded gasoline and a 12,000 gallon capacity for diesel. Soil samples were collected from around the spill buckets during their replacement in 2008, but no elevated levels of contamination were encountered. Several violations involving the release detection devices not being tested annually, improper record keeping, and having petroleum contacted water in the sump were reported, but the site was in compliance as of October 2012. Although this site is located adjacent (0.01 miles south) to the right-of-way, this site is rated **LOW RISK** due to it having no reported discharges and it was in compliance as of its most recent inspection.

Site 72 – Saxon Square Plaza Multiple Businesses (FLD984171132, FLR000149179, 64/9810791) – This plaza includes seven identified potential sources of contamination located at 1209 Saxon Boulevard. No records or business locations were found for the New Life Chapel for Cremations that is listed as “No Name Church”, Goldrush Productions, GD Meyers Inc., and Heinish Family Chiropractic, all of which are listed as small quantity generators by Volusia County but are not registered generators of hazardous waste. No records were found for Saxon Jewelers, which could not be located but is listed as an unverified small quantity generator by Volusia County. No records were found for Deltona Driving School, which could not be located but is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. These sites were reviewed for signs of contamination but none were found. Bechtol Engineering & Testing (FLD984171132) was registered as a small quantity generator in 1989 when it occupied Suite 3, but is no longer located at this address. The site was inspected when vacant in 2010, but no violations or areas of concern were observed. Pro Line Cleaners is a dry cleaning facility that is located at Suite 8. The facility uses solvents, including perchloroethylene, and was registered as a small quantity generator in 2008. There have been no reported violations or discharges of hazardous waste for this dry cleaning facility. Although this site is located adjacent (0.01 miles north) to the right-of-way, this site is rated **LOW RISK** due to no recorded violations or discharges.

Site 73 – Deltona Citgo, formerly Chevron Saxon Boulevard and Expert Car Care (64/8731593) – This UST site is also known as Browning’s Convenience Store and is located at 2123 Saxon Boulevard. The site is located approximately 0.02 miles east of the current right-of-way, but it is located within the proposed right-of-way for the expansion of Pond Site 408. The retail gas station also includes an automobile service shop, and is registered as a conditionally exempt small quantity generator. An 8,000 gallon leaded, 8,000 gallon unleaded, 5,000 gallon unleaded, 5,000 gallon diesel, and a 500 gallon used oil UST were installed at the site when it opened in 1984. The four fuel USTs were replaced with a 15,000

gallon capacity unleaded UST in 1999. At the time of the replacement the USTs appeared to be in good condition, but excessively contaminated soil was discovered from sampling around the excavation pit, leading to a recorded discharge that was given a priority ranking score of 25. Subsequent soil and groundwater testing was conducted in August 2005, finding no elevated levels of contamination. This led to the site being accepted for No Further Action status in December 2005. The used oil UST was removed sometime around 2007, but a closure report was never submitted, leading to several violations. The area where the used oil UST was formerly located was sampled for contamination in 2011, but contamination levels were below the acceptable limits. The site was in compliance as of March 2013. A Site Assessment Report (2005) found that groundwater flow was generally to the east. Although the only reported discharge at the site has received a No Further Action status, there have been no reported discharges of hazardous waste, and the site was in compliance as of its most recent inspection, this site was given a **MEDIUM RISK** rating based on it being an active gasoline service station and it being within the proposed right-of-way for Pond Site 408.

Site 74 – Saxon Plaza Multiple Businesses (64/9502765) – This plaza includes three identified potential sources of contamination located at 2031, 2063, and 2091 Saxon Boulevard. The site is located approximately 0.01 miles north of the current right-of-way, but it is located within the proposed right-of-way for the expansion of Pond Site 408. No records were found for Designer Nails, a retail nail salon located at 2031 Saxon Boulevard. No records were found for a closed dry cleaning facility that has a FDEP number (64/9502765) and is listed as “Dry Cleaner” in the database located at 2063 Saxon Boulevard, which is now occupied by Biggs TV Service. An open dry cleaning facility, Executive Dry Cleaners is located in the plaza at 2091 Saxon Boulevard, but no records were found for this location. There have been no reported violations or discharges of hazardous waste for any of these facilities and the site was reviewed for signs of contamination but none were found. Although no recorded or observed contamination was found for this site, it was given a **MEDIUM RISK** rating based on it being an active dry cleaning and retail nail salon located within the proposed right-of-way for Pond Site 408.

Site 75 – Deltona Memorial Gardens Maintenance Facility (no FDEP #s found) – No records were found for this AST site that is located at 1297 Saxon Boulevard. An AST was observed in an open shed structure along the north side of the maintenance area that was labeled diesel. A nozzle for use in fueling vehicles or equipment was observed with the tank. The AST appears to have a secondary containment wall and is locked inside the shed structure. No obvious signs of contamination were observed in the vicinity of the tank. Even though this tank is likely not registered and is fairly close (0.06 miles northwest) to the right-of-way, it is rated **LOW RISK** due to there being no recorded or observed contamination.

Site 76 – Cell Tower with Diesel Powered Generator (no FDEP #s found) – No records were found for this AST site that is located at 2091 Saxon Boulevard. An AST is used with a diesel powered emergency generator. The AST and generator appear to be in good condition without any noticeable signs of contamination. Despite its proximity (0.02 miles north) to the current right-of-way, this site is rated **LOW RISK** due to there being no recorded or observed contamination. A proposed new pond site (Pond Site 408) would acquire the parcels to the south of this site, making it directly north of the proposed right-of-way.

Site 77 – Lowes #467 (64/9802592) – This large home improvement store is located at 901 Saxon Boulevard. A 1,500 gallon capacity AST for use with a diesel powered emergency generator was installed at this site in July 2005. Minor violations were recorded at this site involving rusting of the tank and improper labeling in 2013, but there have been no reported discharges of contamination associated with this AST. This site is rated **LOW RISK** due to no reported discharges and its distance (0.45 miles northwest) from the right-of-way.

Site 78 – Florida Hospital Fish Memorial (FLR0000382895, 64/9401735, 64/8631442) – This large hospital complex is located at 1055 Saxon Boulevard. This site was registered as a conditionally exempt small quantity generator in 1994, but there are no records of any violations or spills related to hazardous waste at this site. There are three registered ASTs at this site for use with diesel powered emergency generators and a boiler. Two 10,000 gallon capacity ASTs were installed in 1994 and a 20,000 gallon capacity AST was installed in 2000. Several minor violations have been recorded at this site, but there are no records of any discharges associated with the ASTs. This site is rated **LOW RISK** due to there not being any reported discharges of contamination or hazardous waste and its distance (0.24 miles northwest) from the right-of-way.

Site 79 – Wal-Mart Supercenter #563 (FLR000156026, 64/9805749) – This large retail facility that includes an automobile service station is located at 2400 Veterans Memorial Parkway. The facility was registered as a small quantity generator in June 2009. An 800 gallon capacity waste oil AST was installed in 2001, but was replaced with one the same size in 2009. Several violations regarding lack of financial responsibility and not having interstitial monitoring for the secondary containment have been documented, but the site was in compliance as of December 2012. This site is rated **LOW RISK** due to there not being any reported discharges of contamination, it was in compliance as of its most recent inspection, and its distance (0.26 miles west) from the right-of-way.

Site 80 – Private Residence listed as D & T Tires Inc. (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is listed as being located at 2092 South Parkton Drive, which is a private residence. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.13 miles east) from the right-of-way.

Site 81 – Private Residence listed as RS Painting Solutions Inc. (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is listed as being located at 548 Glancy Drive, which is a private residence. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.15 miles northeast) from the right-of-way.

Site 82 – Private Residence listed as Carmen Torres Affordable Construction (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is listed as being located at 400 Taylorville Street, which is a private residence. The site was reviewed for signs of contamination but none were found. Despite its proximity (0.03 miles east) to the right-of-way, this site is rated **NO RISK** due to the lack of any documented or observed signs of contamination.

Site 83 – Private Residence listed as JNF Improvements & Services Inc. (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is listed as being located at 424 Taylorville Street, which is a private residence. The site was reviewed for signs of contamination but none were found. Despite its proximity (0.09 miles east) to the right-of-way, this site is rated **NO RISK** due to the lack of any documented or observed signs of contamination.

Site 84 – Private Residence listed as Naples Painting (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is listed as being located at 540 Baldwin Court, which is a private residence. The site was reviewed for signs of contamination but

none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.19 miles northeast) from the right-of-way.

Site 85 – Private Residence listed as Miracle Brothers Site Development Corporation (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is listed as being located at 401 Jeffers Street, which is a private residence. The site was reviewed for signs of contamination but none were found. Despite its proximity (0.04 miles east) to the right-of-way, this site is rated **NO RISK** due to the lack of any documented or observed signs of contamination.

Site 86 – Home Depot #6323 (FLR000112011) – This large home improvement store is located at 2300 Veterans Memorial Parkway. It was registered as a conditionally exempt small quantity generator in August 2004, but there are no records of any violations or discharges of hazardous waste. This site is rated **LOW RISK** due to no reported discharges of hazardous wastes and its distance (0.36 miles west) from the right-of-way.

Site 87 – Private Residence listed as Hauling for Cheap (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is listed as being located at 451 Rockford Street, which is a private residence. The site was reviewed for signs of contamination but none were found. Despite its proximity (0.09 miles east) to the right-of-way, this site is rated **NO RISK** due to the lack of any documented or observed signs of contamination.

Site 88 – Private Residence listed as New World Painting (no FDEP #s found) – No records were found for this site that is listed as an unverified small quantity generator by Volusia County. It is listed as being located at 516 Dustin Terrace, which is a private residence. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.35 miles east) from the right-of-way.

Site 89 – Private Residence listed as Don’s Acrylic Decking Inc. (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is listed as being located at 520 Everett Street, which is a private residence. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.37 miles east) from the right-of-way.

Site 90 – Private Residence listed as GD Painting (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is listed as being located at 2009 Parkton Drive, which is a private residence. The site was reviewed for signs of contamination but none were found. Despite its proximity (0.09 miles east) to the right-of-way, this site is rated **NO RISK** due to the lack of any documented or observed signs of contamination.

Site 91 – Private Residence listed as SDQ Air & Mechanical Inc. (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is listed as being located at 573 Sullivan Street, which is a private residence. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.28 miles east) from the right-of-way.

Site 92 – Private Residence listed as Jimmy’s Auto Detailing (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is listed as being located at 2068 Apricot Drive, which is a private residence. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.22 miles east) from the right-of-way.

Site 93 – Private Residence listed as Creations (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is listed as being located at 521 Antelope Drive, which is a private residence. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.16 miles east) from the right-of-way.

Site 94 – Private Residence listed as Reliable Painting (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is listed as being located at 561 Antoinette Street, which is a private residence. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.15 miles east) from the right-of-way.

Site 95 – Private Residence listed as The Immaculate Reign (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is listed as being located at 2189 Normandy Boulevard, which is a private residence. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.43 miles east) from the right-of-way.

Site 96 – Private Residence listed as Arnaldo Torres LLC (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is listed as being located at 553 Gifford Court, which is a private residence. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.14 miles east) from the right-of-way.

Site 97 – Private Residence listed as Reliable Computers (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is listed as being located at 502 Annapolis Drive, which is a private residence. The site was reviewed for signs of contamination but none were found. Despite its proximity (0.05 miles east) to the right-of-way, this site is rated **NO RISK** due to the lack of any documented or observed signs of contamination.

Site 98 – Four Towns Wastewater Treatment Plant (FLA011118) – No records were found for this wastewater treatment facility located at 100 East Iris Drive, approximately 0.38 miles southwest of Rhode Island Avenue extension right-of-way. A newspaper article from February 13, 2001 in the Orlando Sentinel reported that a break-in at this facility resulted in vandalism that included a 3,000 gallon sewage spill. No further information was found regarding this incident in the FDEP databases or through phone conversations with Volusia County Public Works Department. An AST for use with a diesel powered emergency generator was observed at the site and appeared to be in good condition without any evidence of discharges. The generator was not currently in use according to Dan Long of the Volusia County Water Resources & Utility Operations Division. A portable diesel powered generator was also located at the site, but also appeared to be in good

condition without any signs of spills or discharges. Mr. Long stated that three monitoring wells were located at the property that he knew of, at the eastern, western, and southern edges of the facility. Mr. Long was not aware of any contamination or discharges of wastewater at the facility including the reported vandalism incident, but Mr. Long was not working at the site in 2001. Although this site has two inactive ASTs and is an operational wastewater treatment facility, this site is rated **LOW RISK** due to not having any FDEP records of wastewater contamination and its distance from the southwestern limits of the right-of-way.

Site 99 – Florida Gas Transmission Company Gas Pipeline (no FDEP #s found) – No records were found for this gas pipeline located west of I-4 and at the Rhode Island Avenue extension right-of-way. At its closest point, the pipeline is located approximately 0.06 miles west of the I-4 right-of-way between the Dirksen Drive/DeBary Avenue interchange and the Enterprise Road bridge. The pipeline is located directly to the west of proposed Pond Site FPC 403. The Pipeline crosses under Rhode Island Avenue directly to the west of the intersection at Veterans Memorial Parkway. No observed signs of contamination were observed in relation to this pipeline. This site is rated **LOW RISK** due to no records or observations of any discharges of contamination.

Site 100 – Halifax Health Hospice Care Center (64/8837872) – This AST site is located at 1625 Veterans Memorial Parkway and was formerly named the Hospice of Volusia/Flagler West Volusia Care Center. A 1,100 gallon capacity AST for use with a diesel powered emergency generator was installed at the site in December 2007. Violations regarding not having a method of checking the rupture basin and overflow protection alarms were reported during an inspection in October 2013. However, the generator and its AST appear to be in good condition and it has had no reported discharges. This site is rated **LOW RISK** due no reported discharges and its distance (0.37 miles south) from the intersection of Veterans Memorial Parkway and East Rhode Island Avenue.

Site 101 – Private Residence listed as Eric Ray Frankton (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is listed as being located at 2208 Firwood Drive, which is a private residence. The site was reviewed for signs of contamination but none were found. Despite its proximity (0.04 miles east) to the right-of-way, this site is rated **NO RISK** due to the lack of any documented or observed signs of contamination.

Site 102 – Private Residence listed as Chico Kools Technologies (no FDEP #s found) – No records were found for this site that is listed as an out of business small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is listed as being located at 686 Vicksburg Street, which is a private residence. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.33 miles southeast) from the proposed Rhode Island Avenue extension right-of-way.

Site 103 – Deltona Utilities Vicksburg Facility (64/8943588) – This water treatment facility is located at 880 Vicksburg Street. A 280 gallon capacity AST for use with a diesel powered emergency generator was installed at the site in December 1988. No records of any violations, spills, or releases of contamination were found for this site. An AST was not observed at the site during a site review, but a concrete pad where an AST may have been located was observed. An open concrete container labeled “sodium hypochlorite” was observed at the site, but the container appeared to be empty. This site is rated **LOW RISK** due to its distance (0.48 miles southeast) from the proposed Rhode Island Avenue extension right-of-way.

Site 104 – City of Deltona WTP #17 (64/9807020) – This AST site is located at 2308 North Normandy Boulevard. A 1,000 gallon capacity AST that is used with a diesel powered emergency generator was installed at the site in 2003. Several violations have been recorded for the facility including a lack of financial responsibility and not having the release detection devices tested annually, but there have been no discharges reported and the site is in compliance as of November 2012. Despite its proximity (0.05 miles east) to the right-of-way, this site is rated **LOW RISK** due to no reported discharges and it is currently in compliance.

Site 105 – Vacant Wooded Parcels (no FDEP #s found) – No records were found for this strip of land located east of the I-4 right-of-way, west of Normandy Boulevard and north of South Avenue, south of East Graves Avenue. Evidence of bullets and casings were found at one area of the site but the extent and impact of lead, copper, brass, and other metals at the site is unknown. Other materials, such as roofing shingles, concrete rubble, lumber materials, and household garbage were observed illegally dumped in small piles at the site in numerous locations, typically in close proximity to the dirt roads and trails present at the site. This site encompasses the eastern part of the Rhode Island Avenue extension and Pond Site C. Although the potential sources of contamination at the site are generally in isolated locations and of small quantity, there is a potential for some contamination to be present at this site. No evidence of any contamination was found at the proposed location of Pond Site C. This site is rated **MEDIUM RISK** due to the potential of hazardous materials to be present within portions of the proposed Rhode Island Avenue extension right-of-way.

Site 106 – CNH Structural LLC (no FDEP #s found) – No records were found for this site that is listed as an out of business small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is listed as being located at 1477 South Leavitt Avenue. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.37 miles southwest) from the proposed Rhode Island Avenue extension right-of-way.

Site 107 – Harty Tractor Services Inc. including Land Clearing Debris Site (64/9806496, 64/29547) – This AST site that is also listed as a land clearing debris disposal site, including a landfill, is located at 924 East Rhode Island Avenue. The facility is listed as Votran West Side Facility in the FDEP storage tank database. A 2,000 gallon capacity diesel AST and a 2,000 gallon capacity unleaded gasoline AST were installed at the site in August 2000. Minor violations regarding notifications of tank closures have been recorded for this site, but there have been no reported discharges regarding either the ASTs or the land clearing debris disposal portion of the facility. A review of the site found that the facility consists of offices, a maintenance building, a vehicle fueling station, open staging/parking area, and another building that was under construction as of September 2014. Several ASTs, 55-gallon drums, and other containers were observed being stored outside or on the apron of the maintenance building. Three large ASTs were observed to the south of the fueling station, but appeared to have been recently installed. Six ASTs of various sizes were observed being stored in a vehicular parking area along the eastern side of the property. Although there have been no reported violations or discharges, this site is rated **MEDIUM RISK** due to it being a landfill which is still being used as a land clearing debris site, its proximity (0.12 miles west) to the proposed Rhode Island Avenue extension right-of-way, and the observed ASTs and drums located at the facility.

Site 108 – Cell Tower with Diesel Powered Generator (no FDEP #s found) – No records were found for this AST site located along the east side of South Leavitt Avenue, approximately 0.31 miles west of the proposed Rhode Island Avenue extension right-of-way. An AST for use with diesel powered emergency generator was observed at the site and appeared to be in good condition without any evidence of discharges. This site is rated **LOW RISK** due to no records or observations of any discharges of contamination.

Site 109 – Orange City Area Debris Staging Area (64/98383) – No records were found for this site that is located at the southeast quadrant of the intersection of Veterans Memorial Parkway and East Rhode Island Avenue. Interviews with area residents recall that the area was used as a staging area for vegetative debris following the 2004 hurricanes that affected the area. The vegetative debris was burned at the site. The current composition of vegetation at the site is indicative of a past disturbance. The site was reviewed for signs of contamination but none were found. Despite being directly adjacent to the southern of the proposed Rhode Island Avenue extension right-of-way, this site is rated **LOW RISK** due to the lack of any documented or observed signs of contamination.

Site 110 – The Pines Golf Club and Maintenance Facility (no FDEP #s found) – No records were found for this closed golf course with a maintenance facility. The address for the golf course was 1715 Monastery Road and the maintenance facility is located at the southern terminus of South Kentucky Avenue. Golf courses have the potential to be sources of contamination because of the historical use of various pesticides, herbicides, and fertilizers that may now be considered hazardous. Approximately 5 rusted containers, each approximately 1 gallon in volume and containing unknown materials, were observed in a pavilion to the southeast of the main facility. Chemical odors were noted in the immediate vicinity of the pavilion. An empty 55-gallon plastic drum, small piles of lumber, tires, and household garbage were observed along the southern edge of the property. A review of historic aerials indicates that the open area to the north of the maintenance facility was used for vehicle and boat storage. The golf course is located approximately 0.22 miles north of the proposed right-of way at its closest point. The maintenance facility is located directly adjacent to the proposed the proposed Rhode Island Avenue extension right-of-way (0.01 miles north) and approximately 0.02 miles west of the I-4 right-of-way. Although there are no records of any discharges or spills at this site, this site is rated **MEDIUM RISK** due to its proximity to the golf course maintenance facility and the presence of unidentified chemical containers with noticeable odor.

Site 111 – G.E.L. Corporation Site (64/83730) – This class 1 landfill and recycling facility is located at 1200 Leavitt Avenue. The landfill portion of the site has been in existence since the late 1960s. The landfill closed when it reached capacity in 1982. Groundwater testing in 1983 found lead contamination at the site and indicated that the site had not been closed properly. The landfill was covered with fill and vegetation in 1984, but the site remained a recycling/recovery center for construction and demolition debris. Violations were reported several months after the closing of the landfill due to the discovery of broken monitoring wells at the site, gas control measures that had not been implemented properly and vegetative cover that was failing resulting in leachate being discharged at the northeast side of the facility. Many complaints have been received regarding the odor of the site, particularly in 1999/2000 when local citizens urged their neighbors to voice their frustrations about the odor and other perceived pollution originating from the landfill. A groundwater monitoring plan was approved in March 2000 and is still being implemented at present. As of the most recent available groundwater monitoring report from July 2013, twelve monitored parameters (aluminum, ammonia as N, arsenic, benzene, bromodichloromethane, chloroform, dibromochloromethane, iron, lead, phenolics, TDS, and vinyl chloride) were in exceedance of their acceptable levels at one or more of the monitoring wells. The same Semi-Annual Groundwater Quality Monitoring Report (2013) indicated that groundwater flow was generally towards the northwest (see **Appendix D**). Although the reported direction of groundwater flow is generally away from the proposed Rhode Island Avenue extension right-of-way, this site is rated **MEDIUM RISK** due to its proximity (0.12 miles west) to the proposed Rhode Island Avenue extension right-of-way and contamination being present at this historic landfill and current recycling facility.

Site 112 – Aquaticart Designs and Pioneer Woodcraft Corporation (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste.

Both businesses are listed as being located at 914 Shadick Drive, but neither could not be found at this address. LR Printing is currently occupying the site, which was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.36 miles northwest) from the western limits of the project area.

Site 113 – Harry’s Towing Services Inc. (FLR000169458, 64/9801127) – This tow yard AST site that is registered as a conditionally exempt small quantity generator is located at 922 Shadick Drive. A 2,000 gallon capacity AST used for vehicular diesel fuel was installed in 1998. This AST was replaced with a double walled containment AST in 2000. A 1,000 gallon capacity used oil AST was added in February 2002. Both ASTs were closed and removed in May 2002, but there was no explanation as to why they were removed in the records available. A complaint was received in 2010 which alleged that oil was being released into the ground near the garage doors. No evidence was found to support this allegation, but the discovery was made that a 500 gallon used oil UST had been removed sometime around 2008 when it was replaced with a 500 gallon AST. Records indicate that there was some contamination encountered during the removal of the UST, which was removed. There are no available records regarding the closure of the UST or the extent of source removal, but there are also no reported discharges of contamination. Although the records are vague for this site, it is rated **LOW RISK** due to no reported discharges and its distance (0.35 miles northwest) from the from the western limits of the project area.

Site 114 – Stephen’s Motorworks Inc., formerly Servello & Son Inc. (no FDEP #s found) – No records were found for this automotive shop located at 954 Shadick Drive. The site was listed as a small quantity generator by Volusia County but was not a registered generator of hazardous waste when it was occupied by the landscaping company Servello & Son. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.35 miles northwest) from the western limits of the project area.

Site 115 – Santiago Auto Body, formerly Garland Transmissions (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. Garland Transmissions is listed as being located at 978 Shadick Drive, but could not be found at this address. No records were found for Santiago Auto Body, which is currently occupying the site. It was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.34 miles northwest) from the western limits of the project area.

Site 116 – Site listed as West Volusia Welding (no FDEP #s found) – No records were found for this site that is listed as a conditionally exempt small quantity generator by Volusia County, located at 986 Shadick Drive. West Volusia Welding could not be located at this address, which is currently occupied by C & S Towing. The site was reviewed for signs of contamination but none were found. This site is rated **LOW RISK** due to the lack of any documented or observed signs of contamination and its distance (0.32 miles northwest) from the western limits of the project area.

Site 117 – Juan Carlos Auto Repair, formerly IFEC Auto Repair and MC Auto Repair (no FDEP #s found) – No records were found for IFEC Auto Repair that is listed as a conditionally exempt small quantity generator by Volusia County, or MC Auto Repair, which is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. Both businesses are listed as being located at 1046 Shadick Drive, which is currently occupied by Juan Carlos Auto Repair. The site was reviewed for signs of contamination but none were found. This site is rated **LOW RISK** due to the lack of any documented or observed signs of contamination and its distance (0.29 miles northwest) from the western limits of the project area.

Site 118 – Keller’s Storage & Work Shop, formerly Harris Mobile Recycling (FL0000917542) – This storage facility is located at 1054 Shadick Drive. Harris Mobile Recycling was registered as a conditionally exempt small quantity generator in 1994. No violations or discharges of hazardous waste were reported at the site. The site was inspected in 2010 when it was vacant, but no violations or areas of concern were noted. This site is rated **LOW RISK** due to no reported violations or discharges and its distance (0.27 miles northwest) from the western limits of the project area.

Site 119 – Multiple Businesses located at 1070 Shadick Drive (FLR000167221, FLD984247080) – This site consists of multiple suites at 1070 Shadick Drive. Two businesses that were registered as conditionally exempt small quantity generators were located at this address but are not present at this time. JMS Custom Cylinder Heads was registered as a conditionally exempt small quantity generator in 1992. It was inspected in 2010 but was closed; no violations or areas of concern were noted and there have been no reported discharges associated with this business. A complaint was received in 2010 for the other registered conditionally exempt small quantity generator, S & M Auto Repair, alleging improper disposal of used oil and automotive fluids onto the ground and cement. An inspection found no evidence of contamination and several minor violations found during the inspection were corrected immediately. No records were found for Daigger Custom Woodworking LLC, which is listed as a conditionally exempt small quantity generator by Volusia County, or Star Lite Neon, which is listed as an unverified small quantity generator by Volusia County. These businesses were not found at this location during a field investigation. No records were found for the current businesses at this location and no signs of contamination were observed. This site is rated **LOW RISK** due to no confirmed discharges of contamination and its distance (0.23 miles northwest) from the intersection of Veterans Memorial Parkway and East Rhode Island Avenue.

Site 120 – Gator Radiator LLC (no FDEP #s found) – No records were found for this automotive repair shop that is listed as an unverified small quantity generator by Volusia County, located at 1078 Shadick Drive. The site was reviewed for signs of contamination but none were found. This site is rated **LOW RISK** due to the lack of any documented or observed signs of contamination and its distance (0.21 miles northwest) from the western limits of the project area.

Site 121 – Chinchor Electric Inc. (no FDEP #s found) – No records were found for this site that is listed as an unverified small quantity generator by Volusia County. It is listed as being located at 941 Shadick Drive, but the business is actually located at 835 and 841 Shadick Drive. The site was reviewed for signs of contamination but none were found. This site is rated **LOW RISK** due to the lack of any documented or observed signs of contamination and its distance (0.37 miles northwest) from the western limits of the project area.

Site 122 – Universal Packaging & Machinery Sales Corporation (FLD982144065) – This site is located at 965 Shadick Drive. This facility produces high speed filling valves for the soft drink industry and has been in operation since 1983; it was registered as a small quantity generator in 1990. An inspection of the facility in 2012 found that used oil containers were not being labeled properly. However, the facility was able to be in compliance by the end of the inspection and no discharges of contamination were reported. This site is rated **LOW RISK** due to no records of any discharges and its distance (0.36 miles northwest) from the western limits of the project area.

Site 123 – A&J Auto Repair, formerly RC Auto Sales Inc. (no FDEP #s found) – No records were found for RC Auto Sales Inc., which was listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste and is located at 1067 Shadick Drive. No records were found A&J Auto Repair which is currently occupying the site. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.30 miles northwest) from the western limits of the project area.

Site 124 – Former Site of Attachment Sales Inc. (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. The business is listed as being located at 1091 Shadick Drive, but could not be found at this location. John Knox Village (**Site 125**) currently owns this building. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.27 miles northwest) from the western limits of the project area.

Site 125 – John Knox Village (64/8837872) – This retirement and nursing home facility is located at 101 North Lake Drive and includes buildings that were formerly located on Shadick Drive. One of the larger buildings on the site, the Majestic Oaks nursing home, is located at the southeast side of the property. The nursing home was built where the former maintenance facility was located, which had USTs for fueling vehicles. A 1,000 gallon capacity diesel and a 1,000 gallon capacity gasoline USTs were installed in 1985, and a 500 gallon capacity gasoline UST were added in 1987. These USTs and their pump island were located at the northwest side of the present nursing home, along the building and in the parking area. The USTs were closed and removed in April 1991 without any signs of contamination from the tanks. However, a discharge was reported during the investigation of the former pump island, which was reportedly the result of leaking lines. Soil in the vicinity of the pump island was found to be excessively contaminated, and groundwater contamination was discovered up to 40 feet below land surface; the site was given a priority ranking score of 36. The site was monitored for contamination following the reported discharge. There are no records of any initial source removal, but a manifest of the removal of two 55 gallon drums was recorded in 2008. Air Sparging and Soil Vapor Extraction began operation in October 2009, and ceased in June 2011. Monitoring is still being conducted at the site, which shows evidence that the condition of the site is improving, but elevated levels of contamination are still present. Although this site still has contamination present, it is rated **LOW RISK** due to its distance (0.41 miles north) from the western limits of the project area.

Site 126 – Private Residence listed as Hancock Painting (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is listed as being located at 552 Sherwood Oaks Road, which is a private residence. The site was reviewed for signs of contamination but none were found. This site is rated **NO RISK** due to the lack of any documented or observed signs of contamination and its distance (0.26 miles west) from the right-of-way.

Site 127 – Orange City RV Resort and site listed as Ed Young’s Painting & Pressure Cleaning (no FDEP #s found) – No records were found for this site that is listed as a small quantity generator by Volusia County but is not a registered generator of hazardous waste. It is listed as being located at 2300 East Graves Avenue, which is the site of the Orange City RV Resort. A golf course that is now inactive is located at this site. Golf courses have the potential to be sources of contamination because of the historical use of various pesticides, herbicides, and fertilizers that may now be considered hazardous. The site was reviewed for signs of contamination but none were found. Although this site is located approximately 0.06 miles west of right-of-way, it site is rated **LOW RISK** due to the lack of any documented or observed signs of contamination.

Site 128 – RaceTrac #2334 (64/9814086) – This retail gas station facility is located at 3201 Howland Boulevard, approximately 0.15 miles east of the right-of-way. A 20,000 gallon capacity unleaded gasoline UST, a 20,000 gallon capacity compartmentalized gasoline and diesel fuel UST, and a 15,000 gallon capacity gasoline UST was installed at the site in March 2014. There have been no reported discharges or violations at this site. This site is rated **LOW RISK** due to there being no recorded discharge of contamination and its moderate distance (0.15 miles east) from the right-of-way.

Site 129 – Orange City Village Square Plaza Multiple Businesses (64/9500543) – No records were found for this collection of small businesses that is located at 2401 and 2411 East Graves Avenue. Team Denture Service and Alterations Unlimited & Cleaners are two listings that are listed for this plaza, but neither business could be located at this address. Team Denture Service is listed as a small quantity generator by Volusia County but it is not a registered generator of hazardous waste. Alterations Unlimited & Cleaners is listed in the storage tank contamination monitoring database, but no storage tanks were observed at the site. Despite its proximity (0.05 miles east) to the right-of-way, this site is rated **LOW RISK** due to the lack of any documented or observed signs of contamination.

Site 130 – Maschmeyer Concrete Deltona, formerly Inland Materials Inc. (FLR000093336, 64/8626138) – This AST site is located at 3296 Howland Boulevard. This facility is registered as a conditionally exempt small quantity generator due to the industrial wastewater and used oil it produces. The site was out of compliance in 2002 and at least one other time prior for allowing the collection basins of the washout areas become filled with solids, but there are no records of a discharge of hazardous waste. Two 900 gallon ASTs for vehicular diesel were installed at the site in 1986 and replaced with 2,000 gallon AST in 2002 for the same purpose. The site also has a 500 gallon used oil AST and uses 55 gallon drums to store used oil filters. There have been several documented violations associated with the ASTs, including not having financial responsibility, not having interstitial monitoring for the secondary containment, and having staining in the area where the nozzle of the diesel AST is located. However, no discharges have been reported for this site and it was fully in compliance as of August 2013. An additional AST that is unregistered but not operational is located next to the diesel AST and is labeled gasoline. This site is rated **LOW RISK** due to no recorded discharge of contamination and its moderate distance (0.12 miles east) from the right-of-way.

Site 131 – Cemex Orange City Ready-Mix Plant (64/8839244) – This AST and former UST site is located at 2170 SR 472. An 8,000 gallon capacity UST for diesel fuel was installed at the site in 1983 and closed in 1996. A 10,000 gallon capacity AST for diesel fuel was installed at the site in August 2006. There are no records of any discharges or violations available for this site and it was in compliance as of its most recent inspection in July 2014. This site is located approximately 0.15 miles west of Pond Site 417 and approximately 0.62 miles northwest of the existing right-of-way. This site is rated **LOW RISK** due to no recorded discharges of contamination and its moderate distance from proposed Pond Site 417.

Site 132 – Kobrin Builders Supply Inc. (64/8839147) – This AST site is located at 2121 SR 472. The only record found for this site was a notification form of the installation of two ASTs in 1988 totaling a combined 800 gallons capacity and containing unleaded gasoline and vehicular diesel fuel. There are no records of any discharges or violations available for this site. This site is located approximately 0.09 miles north of Pond Site 417, approximately 0.09 miles south of Pond Site 418, and approximately 0.57 miles northwest of the existing right-of-way. This site is rated **LOW RISK** due to no recorded discharges of contamination.

Site 133 – Sieg & Ambachtsheer Inc. (FLR000150375) – This facility is located at 1445 Cassadaga Road. The company performs bridge rehabilitation work and is registered as a conditionally exempt small quantity generator. In October 2008, a complaint was received that the facility had allegedly burned three pallets of lead-based paint and had improperly managed contaminated soil from one of their projects. The facility owns the field adjacent to the maintenance garage, where it periodically burns brush and large stumps. Upon inspection of the burn site, no evidence of any paint cans or metal was observed, but the facility was found to be in violation for storing used oil improperly. No discharges of hazardous waste were documented, but there are no records of any soil or groundwater tests taking place. This site is rated **LOW RISK** due to no reported discharges of hazardous waste and its distance (0.46 miles northwest) from the limits of the right-of-way for this segment. I-4 is within 0.13 miles (east) of the burn area north of this segment.

5.5 Historic Aerial Photography Review

Available historical and current aerial photographs were reviewed from the Volusia County Property Appraiser, the University of Florida Digital Collections (via internet), the National Resources Council Soil Conservation Service Soil Maps, and Google Images. Aerial photos from the years 1943, 1951, 1958, 1973, 1980, 1989, and the present were utilized to help determine the evidence of land use that could indicate a potential for adverse environmental impacts within or adjacent to the project corridor. Examples of the aerial flights over the project corridor can be found in **Appendix C**.

1943

The majority of the project corridor was predominately undeveloped. Land use consisted of lakes, small isolated wetlands, scattered pastures, a few citrus groves, sand pine scrub, and pine flatwoods. The only development present was the small community where enterprise exists today. The power station was present on the north shore of Lake Monroe, just west of Enterprise. The railroad right-of-way and a highway right-of-way were present crossing the St. Johns River at the west end of Lake Monroe. What appear to have been major roads in the project area were located where Dirksen Drive/DeBary Avenue, Enterprise Road and Graves Avenue are located today. What appeared to have been railroad right-of-ways were located near Dirksen Road and Cassadaga Road. The majority of the proposed Rhode Island Avenue extension was undeveloped and in its natural condition. The Likelihood of large scale contamination within the project limits would be considered low due to the lack of development. Likely sites for potential contamination would have been at the power station at Lake Monroe and possible arsenic contamination along any of the railroad right-of-ways.

1951

Conditions were very similar to those observed on the 1943 aerials. What appears to have been a larger power transmission line was observed oriented from southwest to northeast, parallel to Dirksen Drive/DeBary Avenue. Additional Residential Development had occurred at DeBary, west of the project corridor. No visible signs of potential contamination sites were observed beyond those seen on the 1943 aerials.

1958

The majority of the project area was mostly undeveloped. It appeared that additional construction had begun on the power plant already located along the St. Johns River at the west side of Lake Monroe. Residential Development in DeBary had expanded to the east, near the project corridor. Residential Streets were being constructed within the project corridor where Deltona is located. No additional areas of potential contamination issues were observed.

1973

Large scale development had occurred within the study area. I-4 had been constructed with major interchanges at US 17/92, Dirksen Drive/DeBary Avenue, Saxon Boulevard, and SR 472. With the construction of I-4, large scale residential, commercial, retail, and institutional uses had occurred in the DeBary and Deltona communities along Enterprise Road, Saxon Boulevard, Dirksen Drive/DeBary Avenue, and Graves Avenue. A landfill was present west of the intersection of Veterans Memorial Parkway and Rhode Island Avenue. Likely potential contamination sites would have included gasoline service stations, automotive body shops, garages, septic facilities, the landfill, and power generators.

1980

The power plant near the west end of Lake Monroe along the St. Johns River had expanded in size. Some additional residential development had occurred in Deltona, north and south of Saxon Boulevard and along Enterprise Road. The mobile home park to the south of Graves Avenue was present along the west side of I-4. No obvious signs of potential large scale contamination were observed beyond those sites observed on the 1973 aerials.

1989

Additional commercial, retail, residential, and institutional development had occurred throughout the project area. Additional hotels/motels, commercial and residential development had been constructed east of I-4 and along Deltona Boulevard between DeBary Avenue and Saxon Boulevard. Additional residential development had occurred west of I-4 between Dirksen Drive and Saxon Boulevard. Mini warehouses had been constructed on the west side of I-4 at Enterprise Road. Additional residential development had occurred east of I-4, north of Saxon Boulevard. Additional mobile homes had been located west of I-4 and south of Graves Avenue. The concrete plant was present along Graves Avenue, east of I-4. SR 472 had not been extended to the west of I-4. Expansion of the landfill to the west of the intersection of Veterans Memorial Parkway and Rhode Island Avenue had occurred and a golf community had been constructed to the north of the proposed Rhode Island Avenue extension. Potential contamination sites would likely be gasoline service stations, pool supply stores, auto body shops/garages, emergency generators, septic facilities, golf courses, the landfill, and accidental spills and automobile accidents.

2000's to Present

The majority of the project corridor had been built-out. A considerable amount of residential construction had occurred east and west of I-4, north to the north and south of Saxon Boulevard. Commercial and retail development had occurred east and west of I-4 along Saxon Boulevard. A buried gas pipeline can be seen west of and adjacent to Veteran's Memorial Parkway. Significant residential development and a golf course maintenance shed were constructed north of the proposed Rhode Island Avenue extension, west of I-4. Additional residential development had occurred east of the SR 472/I-4 interchange. Interchange improvements had been constructed at the US 17/92, Saxon Boulevard, and SR 472 interchanges along I-4.

Several aspects of the historical land use along the project corridor were observed that could impact the project which are no longer present today. Several small citrus groves were observed on both sides of the current right-of-way, which could be a source of contamination from ethylene dibromide (EDB), a pesticide that was commonly used citrus groves. It is difficult to identify the precise boundaries of pastures within the corridor, but it appears that some areas of the corridor have been used for pasture. Cattle dips were required by law in Florida up until the 1950's, but the exact locations of many of them are unknown. They were used to kill pests, especially ticks, and consisted of an arsenic solution that sometimes contained DDT. It is unknown whether these cattle dips pose a threat to the Project, but it may be possible that they were present based on the historic land use of the corridor. Potential arsenic contamination may occur at any/all railroad crossings within the project area due to the historic use of herbicides.

5.6 Interviews

Interviews were conducted with any available property owners or site managers at the times of the site visits. In general, the majority of those interviewed knew very little site specific information. No additional information was gathered beyond that found on the FDEP's Oculus Database.

Mr. Gabor Matrai, PE of the Volusia County Environmental Management Department was contacted in regards to any additional contamination information within the project corridor. He did not provide any additional information and referred us to the FDEP website for further details on any of the potential contamination sites.

Mr. George Houston II, of the FDEP's Central District Waste Cleanup Section was contacted in regards to any additional contamination information within the project corridor. He did not provide any additional information and referred us to their website for further details on any of the potential contamination sites.

6.0 Alternative Alignments

There are no alternative alignments included with this project as the project goal involves the expansion of the current roadway. The existing right-of-way and new pond sites will likely contain the full extent of the proposed project, with the potential for additional minimal right-of-way acquisitions adjacent to the current limits being the exception. The study area contains any likely additional right-of-way needed, unless a new pond site is proposed beyond what was reviewed for this study.

7.0 Project Impacts

Future construction activities within the existing and proposed right-of-way create the potential for contamination impacts within the project corridor. A total of one hundred thirty three (133) sites were identified within the project corridor that could be potential contamination sites, with potential impacts that may occur both within the proposed right-of-way and the proposed pond sites.

One documented truck accident occurred on I-4 just north of the Enterprise Road overpass in the median where contamination was an issue. Records indicate that the free product that had spilled was removed and is likely not going to be a contamination issue. However, a Source Removal Report was never submitted following the spill and elevated concentrations of lead from a source other than the accident was encountered. The extent and degree of contamination remaining at the site is unknown (see **Site #40**).

Photographs of all potential contamination sites are provided in **Appendix B**.

8.0 Regulatory Status of Sites

Impacts to known and/or potential contamination sites may occur adjacent to the existing right-of-way. Additional right-of-way required for future improvements consists of stormwater retention ponds and treatment swales. Location off right-of-way was approximated from the limits of the existing right-of-way and interchanges to a distance of 0.5 miles. Where appropriate, additional potential contamination sites were identified beyond 0.5 miles from the limits of the existing right-of-way to compensate for the additional right-of-way anticipated for the Rhode Island Avenue extension and stormwater retention ponds. Potential contamination sites that were identified from the analysis of the proposed right-of-way for the Rhode Island Avenue extension are indicated (with RI) on **Table 3**. Out of the one hundred thirty three (133) sites, none were given a high risk rating, but eight (8) were given a medium risk rating. The other one hundred twenty five (125) sites were given a no risk or low risk rating. The pond sites for this project were rated for their potential to have contamination and are listed in **Table 2** below. The facilities with potential contamination in the vicinity of the existing and proposed right-of-way are listed and rated in **Table 3**.

TABLE 2 – POTENTIAL CONTAMINATION RATINGS FOR POND SITES

Pond Site #	Contamination Source	Rating
400	NRC	Low
401	NRC	Low
TS 401A	NRC	Low
TS 401B	NRC	Low
402A	NRC	Low
402B	NRC	Low
402C	NRC	Low

Pond Site #	Contamination Source	Rating
402D	NRC	Low
402E	NRC	Low
402F	NRC	Low
FPC 403	NRC	Low
403	NRC	Low
405A	NRC	Low
405B	NRC	Low
406A	NRC	Low
406B	NRC	Low
FPC 407	NRC	Low
407A	NRC	Low
407B	NRC	Low
407C	NRC	Low
408	PCI	Med.
408 (ALT)	PCI	Med.
Stormwater Vault 408	PCI	Med.
408B	PCI	Med.
408D1	PCI	Med.
409-A1	NRC	Low
409-A2	NRC	Low
409-B1	NRC	Low
A	NRC	Low
B	NRC	Low
B1	NRC	Low
C	NRC	Low
D	NRC	Low
410	NRC	Low
411	NRC	Low
412	NRC	Low
413	NRC	Low
414	NRC	Low
415	NRC	Low
416	NRC	Low
417	PCI	Med.
418	NRC	Low

Table 1 Notes: No Reported Contamination (NRC), Possible Contamination Issue (PCI)

TABLE 3 – REGULATORY STATUS & RATING OF POTENTIAL CONTAMINATION SITES

Site #	Facility Name	Site ID/ Facility ID/SQG Facility ID	Location off ROW (miles)	Contamination Source	Regulatory Status	Rating
1	FPL Sanford Plant	FLD000807784, 64/8516621	.48 NW	CESQG, AST	NFA, ICOM	Low
2	City of DeBary Brownfield Area	BF641401000	.41 NW	Brownfield	NRC	Low
3	FDOT Vacant Property, formerly DeBary Tank No. 3	64/9803356	.55 NW	LUST	CRD	Low
4	Granite Construction Site	64/9804633	.61 NW	AST	NRC	Low
5	DeBary Radiator	FLD984220327	.73 NW	CESQG	NRC	Low
6	Clayton & Sons Salvage Yard	FLR000074088	.67 NW	CESQG	ICOM	Low
7	Adkins Trick Repair, formerly Sunbelt Auto Carriers	FLD982106858	.79 NW	CESQG	NRC	Low
8	Private Residence listed as Rich Frary Home Improvement Inc.	NDB	.49 NW	No Listing	NRC	No
9	Duke Energy Florida Turner Plant #B	FLD000623033, 64/9100061, 29360978	.5 SE	CESQG, LAST	CRD/NFA	Low
10	Private Residence listed as Certified Renovations LLC	NDB	.14 E	No Listing	NRC	No
11	The Pantry and Kangaroo Express #1269	FLD984199257, 64/9063998	.06 W	SQG, LUST	NFA	Low
12	Lil Sammy's Food Mart	64/9600926, 29359951	.17 E	LUST	CPO	Low
13	Deltona LS #5 Generator	NDB	.09 E	AST	NRC	Low
14	Travelodge, formerly Deltona Best Western Motel	64/8517347	.05 E	No Listing	NRC	Low
15	FDOT Diesel Powered Generator	NDB	0 E	AST	NRC	Low
16	Private Residence listed as Allgood Towing LLC	NDB	.08 W	No Listing	NRC	No
17	City of Deltona, formerly Harbor Branch Environmental	NDB	.43 E	AST	NRC	Low
18	Deltona Middle School	NDB	.48 E	NHR	NRC	No
19	Joseph Thomas DPM PA	NDB	.03 E	CESQG	NRC	Low
20	Site listed as Mike Jones Painting	NDB	.08 E	No Listing	NRC	No
21	Physicians Injury Care Center	NDB	.03 E	NHR	NRC	No
22	Sunbelt Micro Electronics Inc.	FLD982127714	.44 E	SQG	NRC	Low
23	Private Residence listed as Midnight Welding & Fabricating	NDB	.28 W	NHR	NRC	No
24	Private Residence listed as M C Framing	NDB	.08 E	NHR	NRC	No
25	Private Residence listed as Frank Jones Towing Service	NDB	.08 E	NHR	NRC	No
26	City of DeBary Bill Keller Park	NDB	0.18 W	No Listing	NRC	Low
27	Private Residence listed as Richard Crews Painting Corporation	NDB	.25 E	No Listing	NRC	No
28	Private Residence listed as Prophotos	NDB	.31 W	NHR	NRC	No

Site #	Facility Name	Site ID/ Facility ID/SQG Facility ID	Location off ROW (miles)	Contamination Source	Regulatory Status	Rating
29	Deltona Fountains Plaza Multiple Businesses	64/9700238	.09 E	NHR, No Listing	NRC	Low
30	Deltona Discount Market, formerly Deltona Citgo and Cumberland Farms #0988	FLD984224998, 64/8517320	.15 E	SQG, UST	NRC, ICOM	Low
31	Deltona Shell, formerly First Coast Energy #2519 and Amoco Service Station #60134	FLD984214403, 64/8841506, 64/8517545, 29367121	.18 E	SQG, LUST	CRD, ICOM	Low
32	David All DDS	NDB	.1 E	CESQG	NRC	Low
33	Muffler Man, formerly Shell First Coast Energy #3101 and Deltona BP #24521	FLD984209163, 64/8517346, 29361984	.13 E	SQG, LUST	CRD	Med.
34	Bessette Family Chiropractic	NDB	.17 E	CESQG	NRC	Low
35	Circle K #4385	FLD984254466, 64/8622861	.19 E	CESQG	SAO, ICOM	Low
36	Justin Square Plaza Multiple Businesses	FLD981030711	.12 E	NHR, No Listing	NRC	Low
37	Andy's Seven LLC, Lil Sammy's Food Mart, formerly Lil Champ Food Stores	FLD984199240, 64/8631469	.1 E	SQG, LUST	NFA, ICOM	Low
38	Deltona Food Station, formerly Deltona Chevron	FLD984208421, 64/8517348	.1 E	SQG, LUST	NFA, ICOM	Low
39	Michael Zerivitz DDS	NDB	.1 E	NHR	NRC	No
40	Weeks Seafood Delivery Spill Site	64/9805552, 29361984	0	Spill, PHMC	SAO, PCI	Med.
41	OC Collision Center, formerly Joe's Body Shop	FLD984252536	.42 W	CESQG	NRC	Low
42	Residential Building Supply	64/8735301	.37 W	UST	NRC	Low
43	Enterprise Industrial Park Multiple Businesses	NDB	.06 W	NHR, AST, No Listing	NRC	Low
44	Private Residence listed as Jose's Auto Detailing	NDB	.03 E	No Listing	NRC	Low
45	Private Residence listed as Lockhart Painting Services Inc.	NDB	.24 E	NHR	NRC	No
46	Private Residence listed as C & V Painting & Remodeling LLC	NDB	.03 E	No Listing	NRC	No
47	Private Residence listed as Jesse M Powers	NDB	.08 E	NHR	NRC	No
48	Site listed as Pell's Citrus & Nursery	NDB	.23 W	NHR	NRC	No
49	Ace Air Conditioning, formerly Pool World of Volusia Inc.	NDB	.31 W	NHR	NRC	No
50	Private Residence listed as All Site Home Improvement	NDB	.22 W	NHR	NRC	No
51	Nancy's Nails	NDB	.35 W	No Listing	NRC	Low
52	Private Residence listed as D & R Painting & Home Remodeling	NDB	.03 E	No Listing	NRC	Low
53	Deltona Boulevard Economic Development Zone	BF641204000	.1 E	Brownfield	NRC	Low

Site #	Facility Name	Site ID/ Facility ID/SQG Facility ID	Location off ROW (miles)	Contamination Source	Regulatory Status	Rating
54	Deltona Plaza Multiple Businesses	FLR000037929, 64/9802118	.17 E	SQG, NHR, No Listing	NRC	Low
55	Private Residence listed as R White Photography LLC	NDB	.11 W	NHR	NRC	No
56	Humberto A Dominguez MD	NDB	.42 W	NHR	NRC	No
57	Maria Suarez DDS	NDB	.41 W	CESQG	NRC	Low
58	Private Residence listed as Robert Rosenberger Enterprises	NDB	.44 E	NHR	NRC	No
59	Cordoba Orthodontics	NDB	.44 W	NHR	NRC	No
60	Joseph V Calderone DMD	NDB	.42 W	NHR	NRC	No
61	Deltona Utilities	64/8517344	.18 E	UST, AST	NRC	Low
62	Private Residence listed as Chris Bailey Painting	NDB	.49 E	NHR	NRC	No
63	Private Residence listed as Mike Gerkin	NDB	.3 E	NHR	NRC	No
64	Private Residence listed as Paint on Demand Inc.	NDB	.35 E	NHR	NRC	No
65	Private Residence listed as Fernando Auto Electric	NDB	.49 E	NHR	NRC	No
66	E Z Play Internet Café, formerly Crown Cleaners	FLR000098004, 64/9809541	.03 S	SQG	NRC	Low
67	Allure Nail Spa	NDB	.02 S	No Listing	NRC	Low
68	Walgreens #07241	FLR000119149	.30 E	CESQG	NRC	Low
69	Florida Injury/Cape Vista Dental	NDB	.33 W	NHR	NRC	Low
70	Circle K #5979	64/9804253	.01 SW	LUST	NFA, ICOM	Low
71	RaceTrac #641	64/9801812	.01 SW	UST	NRC, ICOM	Low
72	Saxon Square Plaza Multiple Businesses	FLD984171132, FLR000149179, 64/9810791	.01 N	SQG, NHR, No Listing	NRC	Low
73	Deltona Citgo, formerly Chevron Saxon Boulevard and Expert Car Care	64/8731593	.02 E	LUST	NFA, ICOM	Med.
74	Saxon Plaza Multiple Businesses	NDB	.01 N	No Listing	NRC	Med.
75	Deltona Memorial Gardens Maintenance Facility	NDB	.06 NW	AST	NRC	Low
76	Cell Tower with Diesel Generator	NDB	.02 N	AST	NRC	Low
77	Lowes #467	64/9802592	.45 NW	AST	NRC	Low
78	Florida Hospital Fish Memorial	FLR0000382895, 64/9401735, 64/8631442	.24 NW	AST	NRC	Low
79	Wal-Mart Supercenter #563	FLR000156026, 64/9805749	.26 W	SQG, AST	NRC, ICOM	Low
80	Private Residence listed as D & T Tires Inc.	NDB	.13 E	NHR	NRC	No
81	Private Residence listed as RS Painting Solutions Inc.	NDB	.15 NE	NHR	NRC	No

Site #	Facility Name	Site ID/ Facility ID/SQG Facility ID	Location off ROW (miles)	Contamination Source	Regulatory Status	Rating
82	Private Residence listed as Carmen Torres Affordable Construction	NDB	.03 E	NHR	NRC	No
83	Private Residence listed as JNF Improvements & Services Inc.	NDB	.08 E	NHR	NRC	No
84	Private Residence listed as Niaples Painting	NDB	.19 NE	NHR	NRC	No
85	Private Residence listed as Miracle Brothers Site Development Corporation	NDB	.04 E	NHR	NRC	No
86	Home Depot #6323	FLR000112011	.36 W	CESQG	NRC	Low
87	Private Residence listed as Hauling for Cheap	NDB	.09 E	NHR	NRC	No
88	Private Residence listed as New World Painting	NDB	.35 E	No Listing	NRC	No
89	Private Residence listed as Don's Acrylic Decking Inc.	NDB	.37 E	NHR	NRC	No
90	Private Residence listed as GD Painting	NDB	.09 E	NHR	NRC	No
91	Private Residence listed as SDQ Air & Mechanical Inc.	NDB	.28 E	NHR	NRC	No
92	Private Residence listed as Jimmy's Auto Detailing	NDB	.22 E	NHR	NRC	No
93	Private Residence listed as Creations	NDB	.16 E	NHR	NRC	No
94	Private Residence listed as Reliable Painting	NDB	.15 E	NHR	NRC	No
95	Private Residence listed as The Immaculate Reign	NDB	.43 E	NHR	NRC	No
96	Private Residence listed as Arnaldo Torres LLC	NDB	.14 E	NHR	NRC	No
97	Private Residence listed as Reliable Computers	NDB	.05 E	NHR	NRC	No
98	Four Towns Wastewater Treatment Plant	FLA011118	.38 SW (RI)	AST	NRC	Low
99	Florida Gas Transmission Company Gas Pipeline	NDB	.06 W, 0.0 (RI)	No Listing	NRC	Low
100	Halifax Health Hospice Care Center	64/8837872	.37 S (RI)	AST	NRC	Low
101	Private Residence listed as Eric Ray Frankton	NDB	.04 E	NHR	NRC	No
102	Private Residence listed as Chico Kools Technologies	NDB	.33 SE (RI)	NHR	NRC	No
103	Deltona Utilities Vicksburg Facility	64/8943588	.48 SE (RI)	AST	NRC	Low
104	City of Deltona WTP #17	64/9807020	.05 E	AST	NRC, ICOM	Low
105	Vacant Wooded Parcels	NDB	0.0 (RI)	Solid Waste/Illicit dumping	NRC	Med.
106	CNH Structural LLC	NDB	.37 SW (RI)	NHR	NRC	No

Site #	Facility Name	Site ID/ Facility ID/SQG Facility ID	Location off ROW (miles)	Contamination Source	Regulatory Status	Rating
107	Harty Tractor Services Inc. including Land Clearing Debris Site	64/9806496, 64/29547	.12 W (RI)	AST, Landfill	NRC	Med.
108	Cell Tower with Diesel Powered Generator	NDB	.31 SW (RI)	AST	NRC	Low
109	Orange City Area Debris Staging Area	64/98383	0.0 S (RI)	Solid Waste	NRC	Low
110	The Pines Golf Club and Maintenance Facility	NDB	.02 W, .01 N (RI)	No Listing	NRC	Med.
111	G.E.L. Corporation Site	64/83730	.12 W (RI)	Landfill	CRD	Med.
112	Aquaticart Designs and Pioneer Woodcraft Corporation	NDB	.36 NW (RI)	NHR	NRC	No
113	Harry's Towing Services Inc.	FLR000169458, 64/9801127	.35 NW (RI)	UST, AST	NRC	Low
114	Stephen's Motorworks Inc., formerly Servello & Son Inc.	NDB	.35 NW (RI)	NHR	NRC	No
115	Santiago Auto Body, Formerly Garland Transmissions	NDB	.34 NW (RI)	NHR	NRC	No
116	Site listed as West Volusia Welding	NDB	.32 NW (RI)	CESQG	NRC	Low
117	Juan Carlos Auto Repair, formerly IFEC Auto Repair and MC Auto Repair	NDB	.29 NW (RI)	CESQG	NRC	Low
118	Keller's Storage & Work Shop, formerly Harris Mobile Recycling	FL0000917542	.27 NW (RI)	CESQG	NRC	Low
119	Multiple Businesses located at 1070 Shadick Drive	FLR000167221, FLD984247080	.23 NW (RI)	CESQG	NRC	Low
120	Gator Radiator LLC	NDB	.21 NW (RI)	NHR	NRC	Low
121	Chinchor Electric Inc.	NDB	.37 NW (RI)	NHR	NRC	Low
122	Universal Packaging & Machinery Sales Corporation	FLD982144065	.36 NW (RI)	SQG	NRC	Low
123	A&J Auto Repair, formerly RC Auto Sales Inc.	NDB	.30 NW (RI)	NHR	NRC	No
124	Former Site of Attachment Sales Inc.	NDB	.27 NW (RI)	NHR	NRC	No
125	John Knox Village	64/8837872	.41 N (RI)	LUST	CRD	Low
126	Private Residence listed as Hancock Painting	NDB	.26 W	NHR	NRC	No
127	Orange City RV Resort and site listed as Ed Young's Painting & Pressure Cleaning	NDB	.06 W	NHR	NRC	Low
128	RaceTrac #2334	64/9814086	.15 E	UST	NRC	Low
129	Orange City Village Square Plaza Multiple Businesses	64/9500543	.05 W	NHR, No Listing	NRC	Low
130	Maschmeyer Concrete Deltona, formerly Inland Materials Inc.	FLR000093336, 64/8626138	.12 E	CESQG, AST	NRC, ICOM	Low
131	Cemex Orange City Ready-Mix Plant	64/8839244	.62 NW	UST, AST	NRC, ICOM	Low
132	Kobrin Builders Supply Inc.	64/8839147	.57 NW	AST	NRC	Low
133	Sieg & Ambachtsheer Inc.	FLR000150375	.46 NW	CESQG	NRC, PCI	Low

Site #	Facility Name	Site ID/ Facility ID/SQG Facility ID	Location off ROW (miles)	Contamination Source	Regulatory Status	Rating
Table Abbreviations: Not in FDEP database (NDB), In Compliance (ICOM), Site Assessment Ongoing (SAO), No Reported Contamination (NRC), Contamination Reported (CRD), Further Action (NFA), Possible Heavy Metal Contamination (PHMC), Possible Contamination Issue (PCI), Cleanup Ongoing (CPO), Above ground storage tank (AST) Leaking above ground storage tank (LAST), Underground storage tank (UST), Leaking underground storage tank (LUST), Non-handler (NHR), Conditionally exempt small quantity generator (CESQG), Small quantity generator (SQG), Rhode Island Avenue extension (RI).						

9.0 Conclusions and Recommendations

A detailed site inspection was conducted of the I-4 corridor for this CSER from east of SR 15/600 (US 17/92) to 1/2 mile east of SR 472 including the interchanges of Dirksen Drive/DeBary Avenue, Saxon Boulevard, the proposed Rhode Island Avenue extension, and SR 472, as well as the potential stormwater management facilities along the corridor in Volusia County, Florida. This study includes site reconnaissance, regulatory file reviews, historic aerial photograph review, construction plans review, interviews, and reporting.

A total of one hundred thirty three (133) sites within the study area were identified as being potential handlers of hazardous materials or having some type of involvement with potential contamination. Of these sites, none had a high risk rating, but eight (8) had a medium risk rating including **Sites #33, #40, #73, #74, #105, #107, #110, and #111**. The remaining one hundred twenty five (125) sites identified received a no risk or low risk rating. It is recommended that any excavation, demolition or dewatering activities within or adjacent to any of the identified medium risk sites should require soil and groundwater testing before construction. Some Level II testing by others is currently being conducted on the identified medium risk sites and may provide additional information on these sites.

A total of forty three (43) potential stormwater management facilities, including recommended and non-recommended alternatives, were evaluated for their potential to have contamination present or affecting the site. Of these pond sites, none had a high risk rating, but six (6) had a medium risk rating including **Pond Sites 408, 408 (ALT), Stormwater Vault 408, 408B, 408D1 and 417**. These ratings were based on observed conditions at the pond sites which have the potential to be sources of contamination. The remaining thirty six (36) pond sites reviewed received a low risk rating. It is recommended that any excavation, demolition or dewatering activities within or adjacent to any of the identified medium risk pond sites should require soil, groundwater, and hazardous material testing before construction. Some Level II testing by others is currently being conducted on the identified medium risk sites and may provide additional information on these sites.

Based on historic aerials, land use in the area before the construction of I-4 consisted of natural lands with some pastures and citrus groves. Potential contamination impacts from these activities include ethylene dibromide and pesticide/herbicide/fertilizer contamination from the citrus groves, and arsenic contamination from railroad right-of-ways or potential cattle dips associated with the pastures. However, the existence, exact location, and severity of these potential sources of contamination are mostly unknown.

All bridges and other structures which will require possible demolition or retrofit should be tested for asbestos containing materials, lead-based paint, or any other hazardous materials prior to construction.

Should any parcels containing medical facilities, doctor offices, hospitals, or drug stores be acquired, they should be tested for asbestos, lead-based paint, x-ray equipment, lead-lined walls, chemicals, and pharmaceuticals prior to demolition.

FDOT commits to conducting Level II Contamination Screenings on all Medium and High Risk Rated sites before establishing a final determination. This will include investigating previous PD&E Studies and Design Projects covering the project area and its surroundings.

10.0 References

Emergency Response Cleanup Report for Granite Construction Company, Valerie R. Francisco P.G., P.A., 9/2002

FHWA Technical Advisory T 6640.8A, dated October 30, 1987

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Florida Department of Transportation, Florida Land Use, Cover, and Forms Classification System (FLUCFCS), Level III, third edition, 1999

Second Semi-Annual Groundwater Quality Monitoring Report for G.E.L. Corporation C & D Debris Disposal and Recycling Facility, Bechtol Engineering and Testing Inc., 10/2013

Security to Increase at Plant. 2001, February 13. *The Orlando Sentinel*. Retrieved from <http://www.orlandosentinel.com>

Site Assessment Report and No Further Action Proposal for Pantry #1269 (dba Kangaroo Express #1269), Terra-Com Environmental Consulting Inc., 4/2013

Site Assessment Report for Browning's Convenience Store, Bechtol Engineering and Testing INC, 11/2005

Supplemental Site Assessment Report for First Coast Energy #2519, Environmental Compliance Services INC, 1/2006

System Startup Report for Lil' Sammy's Food Mart, AECOM Technical Services Inc., 9/2013

University of Florida George A. Smathers Library Digital Collections: Aerial Photography Florida (website), 2014

APPENDIX A

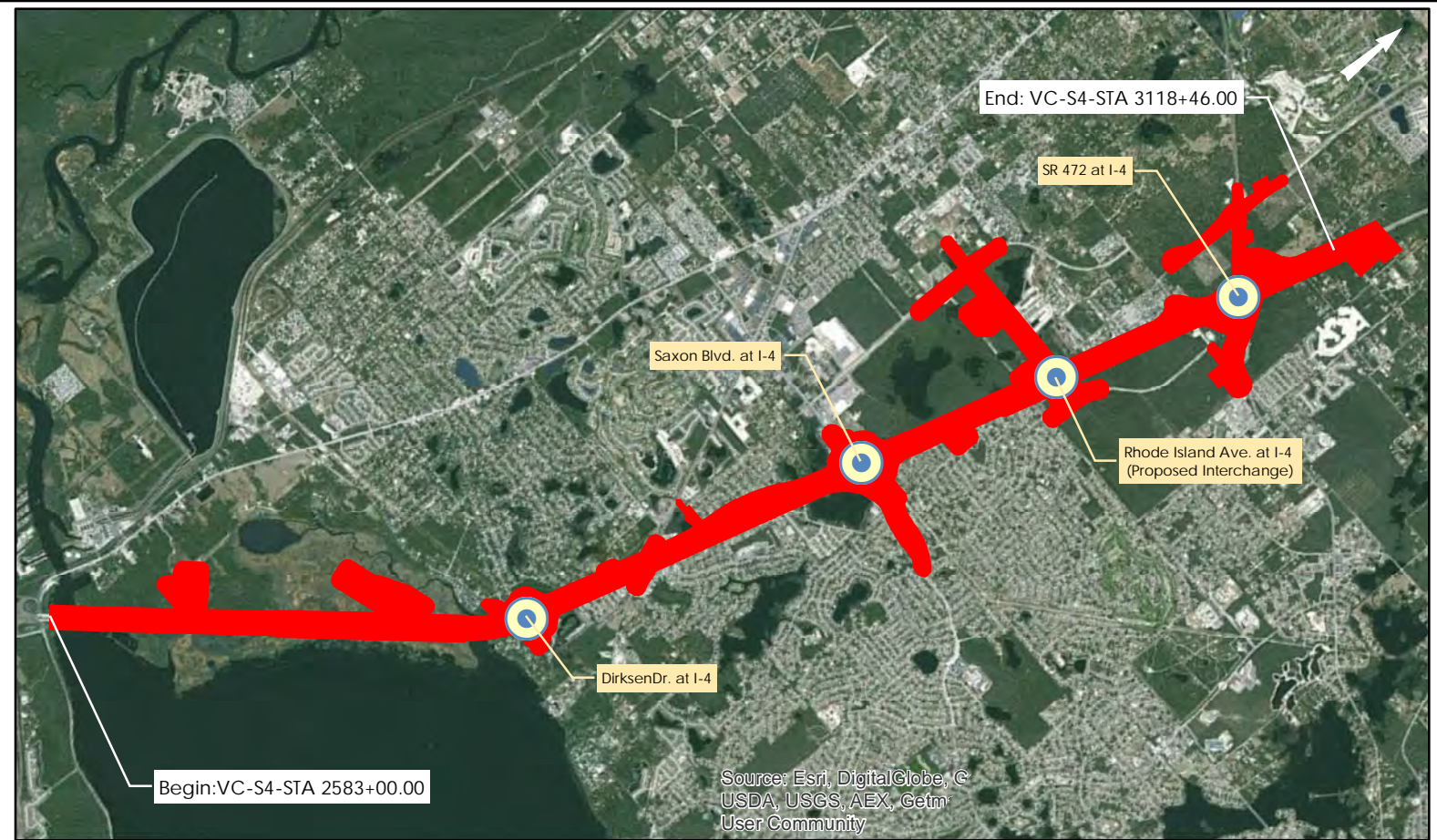
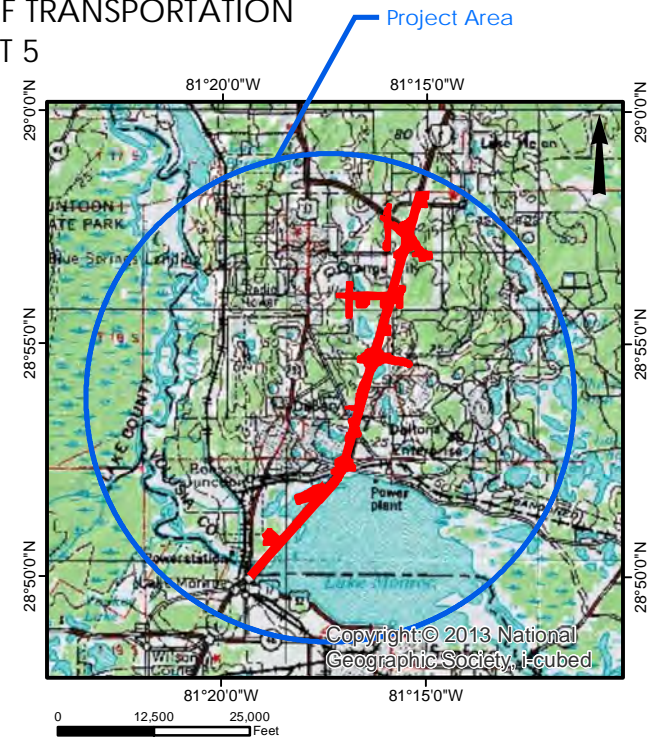
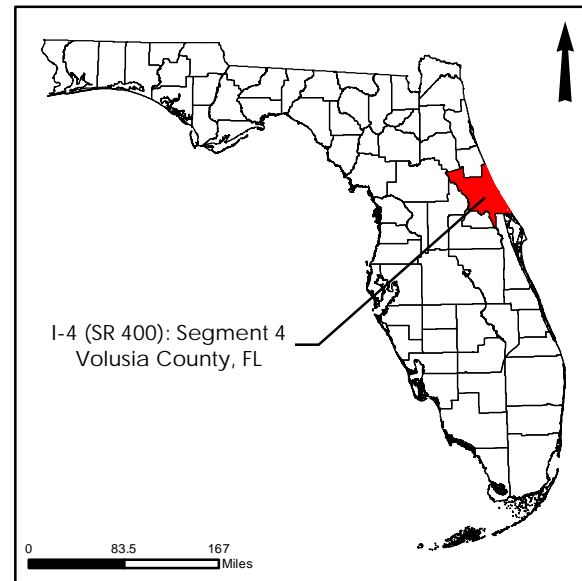
I-4 (SR 400) PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
BEYOND THE ULTIMATE

SEGMENT 4

FDOT FM NO. 432100-1-22-01

CONTAMINATION SCREENING EVALUATION REPORT

VOLUSIA COUNTY
FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT 5



MAP SHEET INDEX		
FIGURE NO.	SHEET NO.	TITLE
Figure A	Single Sheet	USGS Topographical Map
Figure B	Sheets 1-9	Land Use and Habitat Coverage Map
Figure C	Sheets 1-5	Contamination Sites Map

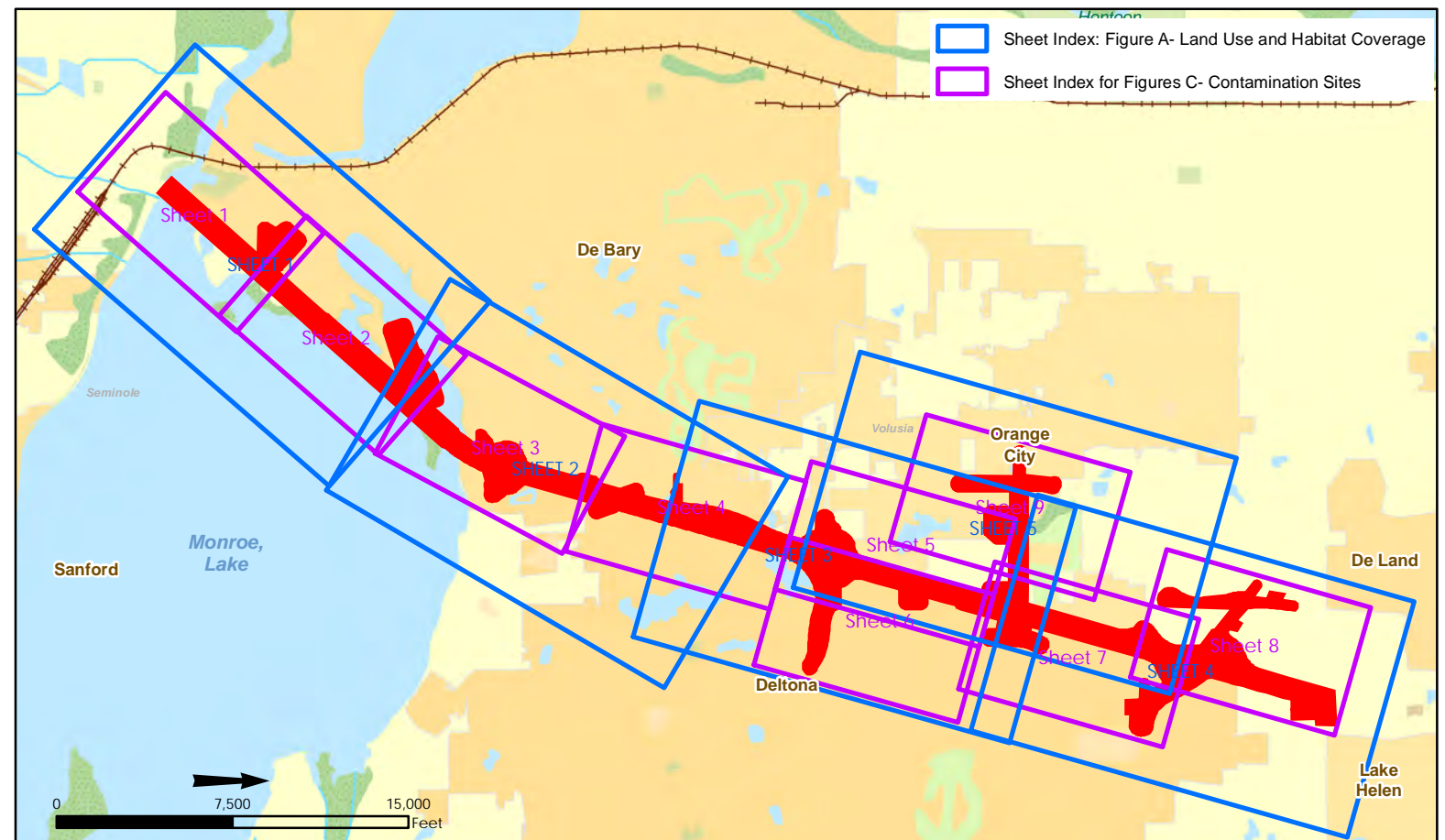
PROJECT DETAILS

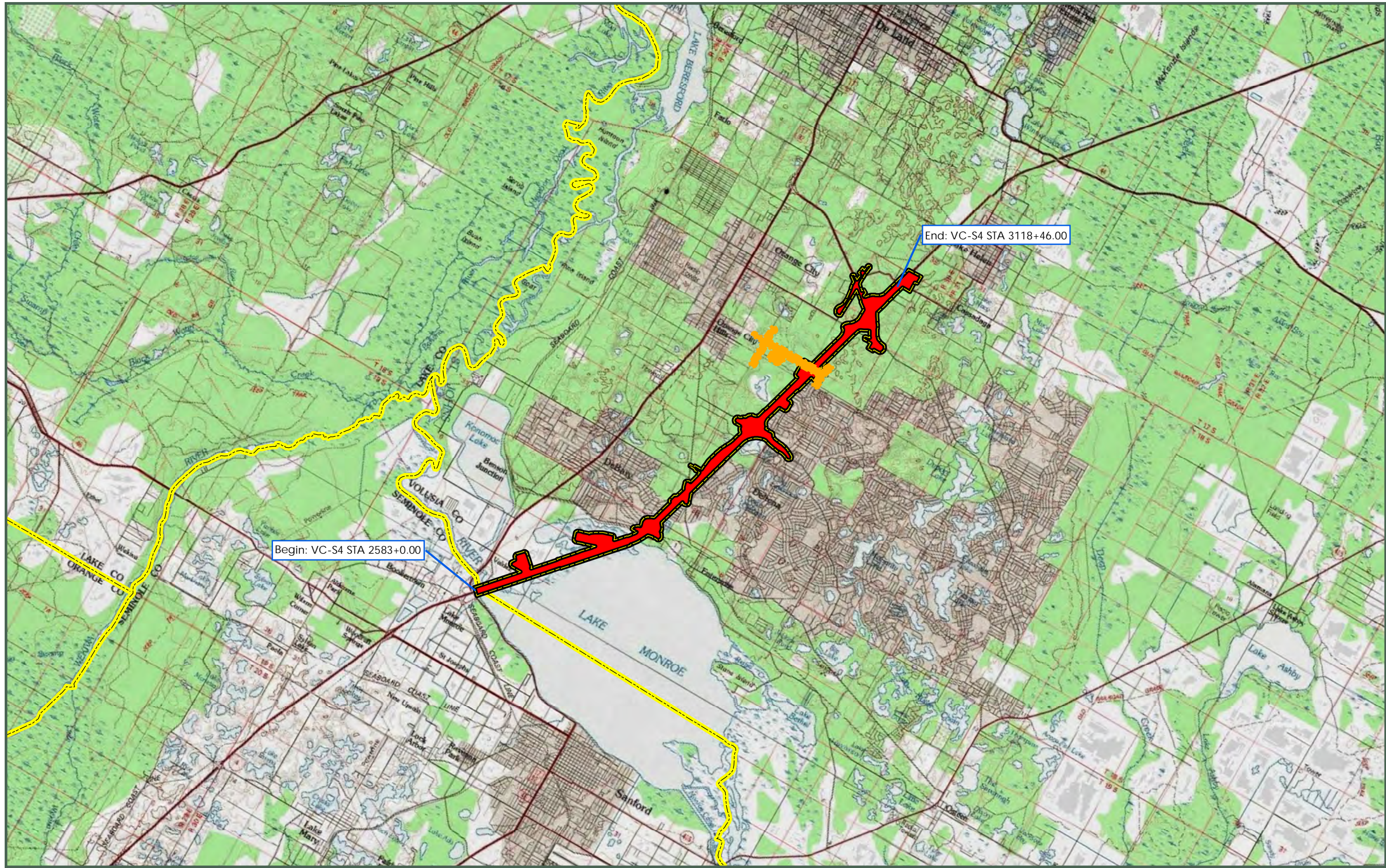
CONTAMINATION SCREENING EVALUATION REPORT:
Segment 4 - Report Maps

Florida Department of Transportation- D5
SR 400 Project Development & Environment Study
Segment 4: SR 400 E. of SR 15/600 US 17/92 to 1/2 mile E of SR 472

79110 Volusia County
STA 2583+0.00(Begin) - MP 0.086
STA 3118+46.00 (End) - MP 10.227

Notes:
Abbreviations:
(R) = Recommended; (ALT) = Alternative; SV = Stormwater Vault
LD = Low Density; MD= Medium Density; HD = High Density
STA = Station; VC = Volusia County





Map Key

Segment 4 PD&E Limits

- I-4 Beyond the Ultimate-Segment 4 Study Area
- Rhode Island Ave (Extension)
- County Boundaries

Title:
 CONTAMINATION SCREENING EVALUATION REPORT: Segment 4 - USGS Topographical Map

Client/Project:
 Florida Department of Transportation- D5
 SR 400 Project Development & Environment Study
 Segment 4: SR 400 E. of SR 15/600 US 17/92 to 1/2 mile E of SR 472

Project Location:
 79110 Volusia County
 STA 2583+0.00(Begin) - MP 0.086
 STA 3118+46.00 (End) - MP 10.227

Prepared by: mLeonard 12/15/2015
 Technical Review by: mDrause 12/15/2015
 Independent Review by: jMoore 12/15/2015

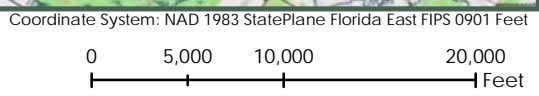
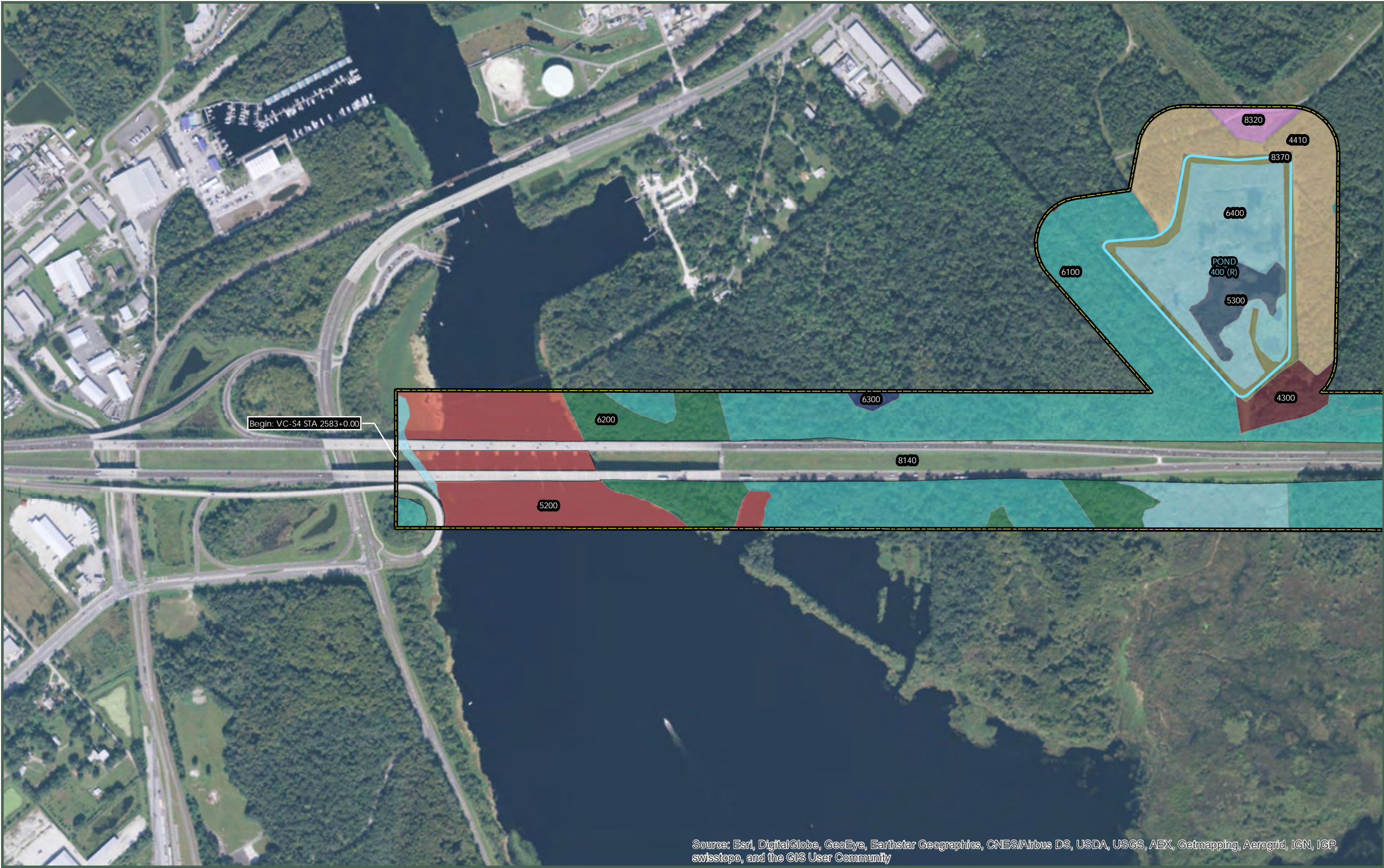


Figure A - USGS Topographical Map



Map Key

Segment 4 PD&E Limits

- I-4 Beyond the Ultimate-Segment 4 Study Area
- Rhode Island Ave (Extension)
- Proposed Pond Sites (12/10/15)
- Treatment Swales (12/10/15)

LAND USE & HABITAT COVER

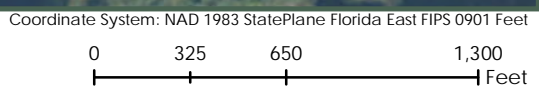
- 1100: Residential, LD
- 1200: Residential, MD
- 1300: Residential, HD
- 1400: Commercial and Services
- 1480: Cemeteries
- 1550: Other Light Industrial
- 1700: Institutional
- 1800: Recreational
- 1900: Open Land
- 2100: Pasture and Crop Land
- 3100: Herbaceous
- 3200: Shrub and Brushland
- 3300: Mixed Rangeland
- 4100: Upland Coniferous Forests
- 4200: Upland Hardwood Forests
- 4300: Upland Hardwoods Forests
- 4410: Pine plantation
- 5100: Streams and waterways
- 5200: Lakes
- 5300: Reservoirs
- 6100: Wetland Hardwood Forests
- 6200: Wetland Coniferous Forests
- 6300: Wetland Forested Mixed
- 6400: Vegetated Non-Forested Wetlands
- 7400: Disturbed Lands
- 8140: Roads and Highways
- 8320: Power Transmission Lines
- 8330: Water Supply Plants
- 8350: Solid Waste Disposal
- 8370: Surface water collection basins

Title:
 CONTAMINATION SCREENING EVALUATION REPORT: Segment 4 - Land Use and Habitat Coverage Map

Client/Project:
 Florida Department of Transportation- D5
 SR 400 Project Development & Environment Study
 Segment 4: SR 400 E. of SR 15/600 US 17/92 to 1/2 mile E of SR 472

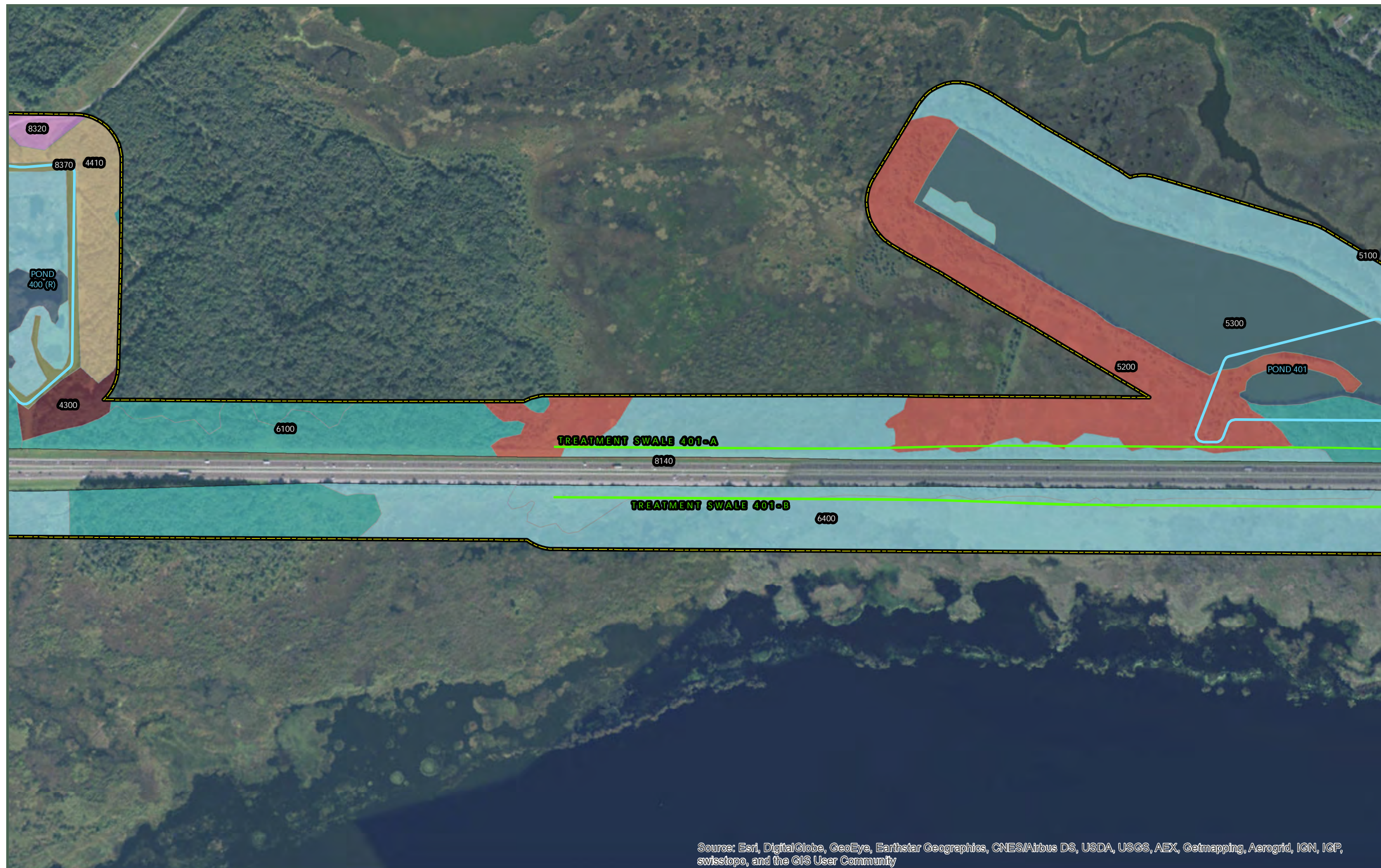
Project Location:
 79110 Volusia County
 STA 2583+0.00(Begin) - MP 0.086
 STA 3118+46.00 (End) - MP 10.227

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



Prepared by: mLeonard 1/22/2016
 Technical Review by: mDrause 1/22/2016
 Independent Review by: jMoore 1/22/2016

Figure B - Sheet 1 of 9: Land Use and Habitat Coverage Map



Map Key

Segment 4 PD&E Limits

- I-4 Beyond the Ultimate-Segment 4 Study Area
- Rhode Island Ave (Extension)
- Proposed Pond Sites (12/10/15)
- Treatment Swales (12/10/15)

LAND USE & HABITAT COVER

- 1100: Residential, LD
- 1200: Residential, MD
- 1300: Residential, HD
- 1400: Commercial and Services
- 1480: Cemeteries
- 1550: Other Light Industrial
- 1700: Institutional
- 1800: Recreational
- 1900: Open Land
- 2100: Pasture and Crop Land
- 3100: Herbaceous
- 3200: Shrub and Brushland
- 3300: Mixed Rangeland
- 4100: Upland Coniferous Forests
- 4200: Upland Hardwood Forests
- 4300: Upland Hardwoods Forests
- 4410: Pine plantation
- 5100: Streams and waterways
- 5200: Lakes
- 5300: Reservoirs
- 6100: Wetland Hardwood Forests
- 6200: Wetland Coniferous Forests
- 6300: Wetland Forested Mixed
- 6400: Vegetated Non-Forested Wetlands
- 7400: Disturbed Lands
- 8140: Roads and Highways
- 8320: Power Transmission Lines
- 8330: Water Supply Plants
- 8350: Solid Waste Disposal
- 8370: Surface water collection basins

title:
 CONTAMINATION SCREENING
 EVALUATION REPORT: Segment 4 -
 Land Use and Habitat Coverage Map

Client/Project:
 Florida Department of Transportation- D5
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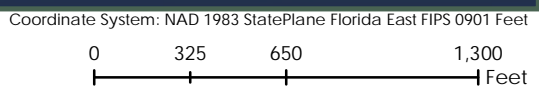
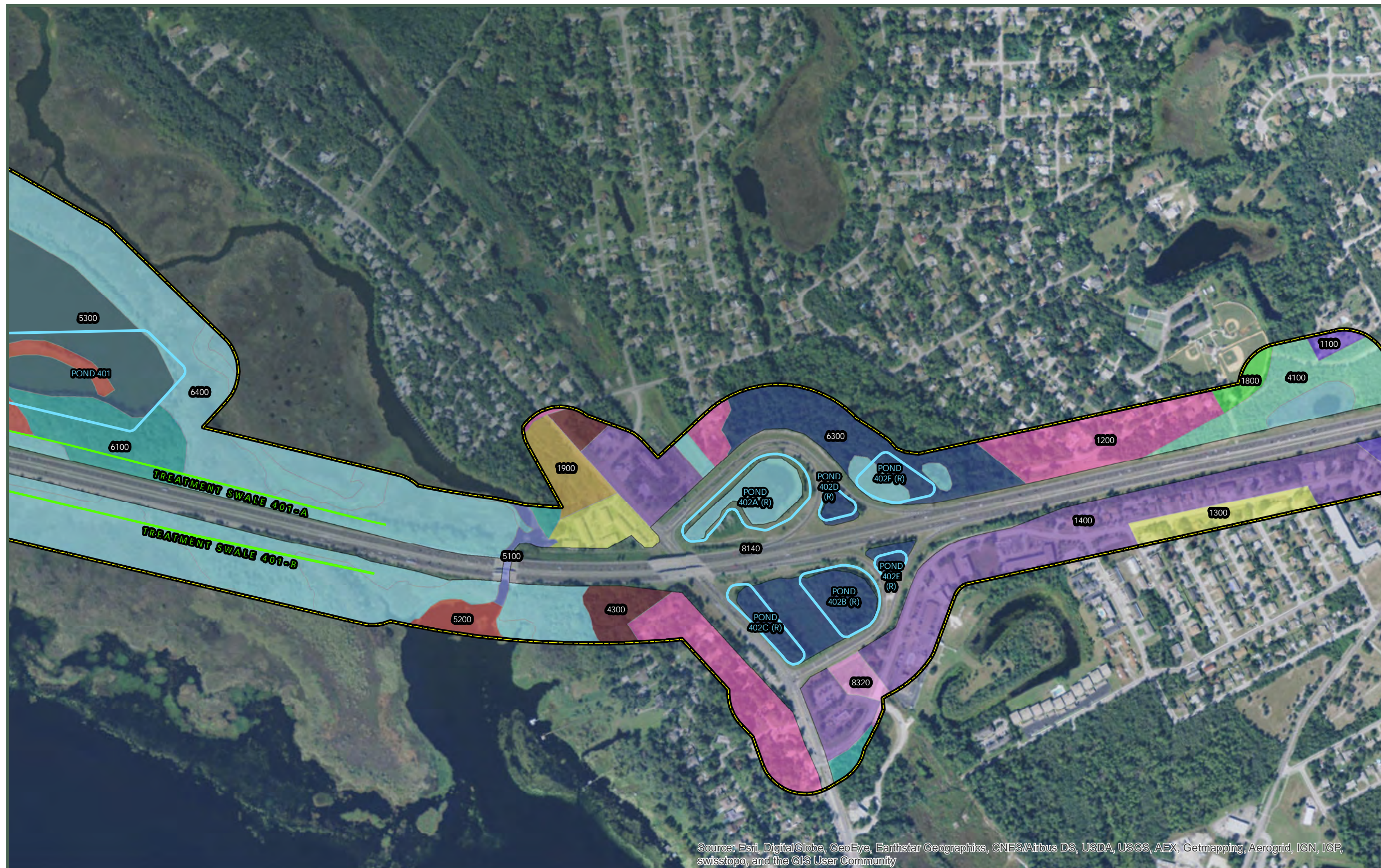


Figure B - Sheet 2 of 9: Land Use and Habitat Coverage Map



Map Key

Segment 4 PD&E Limits

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- 8350: Solid Waste Disposal
- 8370: Surface water collection basins

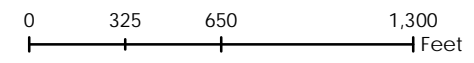
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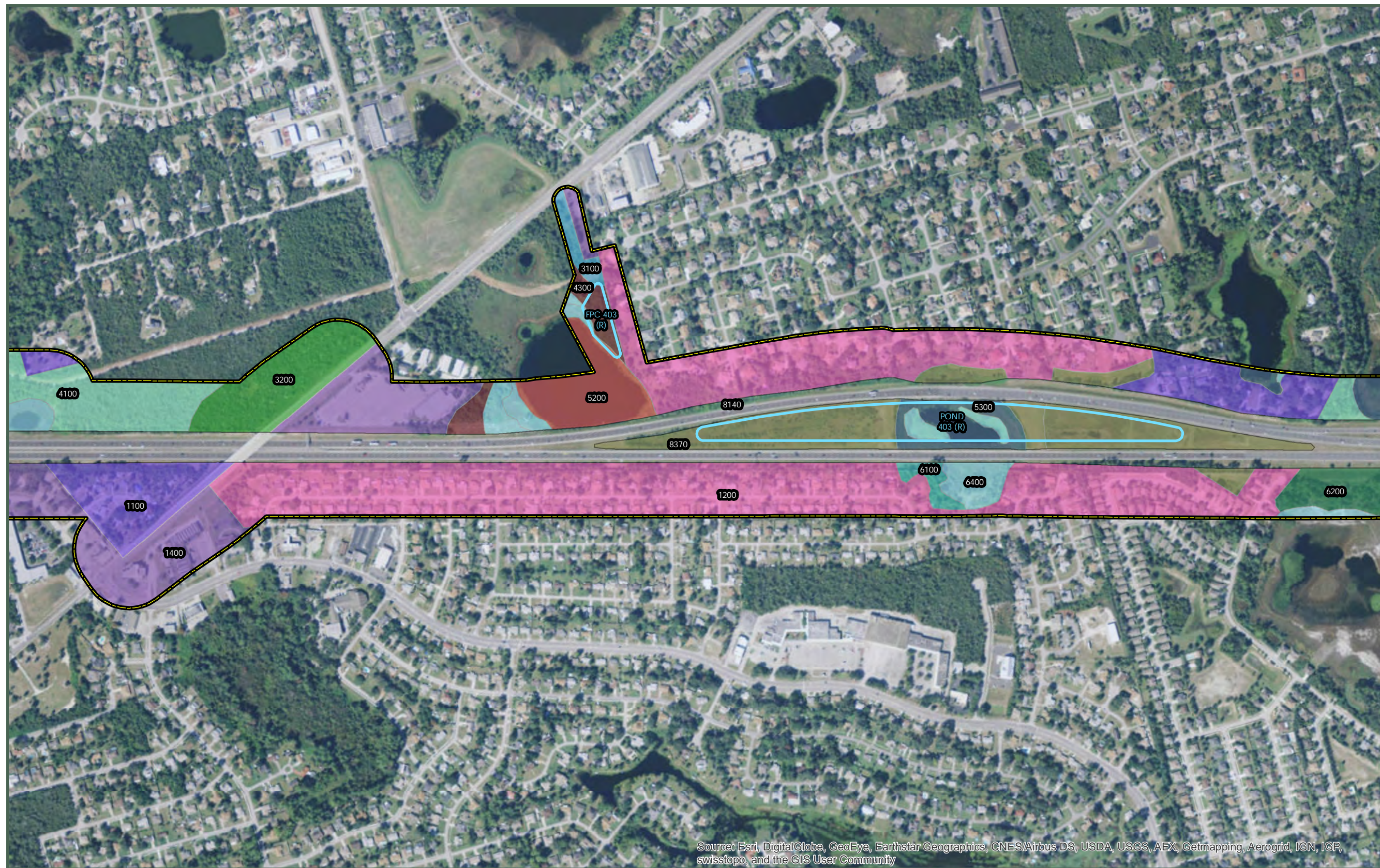
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Coordinate System: NAD 1983 StatePlane Florida East FIPS 0901 Feet



Prepared by: mLeonard 1/22/2016
 Technical Review by: mDrause 1/22/2016
 Independent Review by: jMoore 1/22/2016

Figure B - Sheet 3 of 9: Land Use and Habitat Coverage Map



Map Key

Segment 4 PD&E Limits

- I-4 Beyond the Ultimate-Segment 4 Study Area
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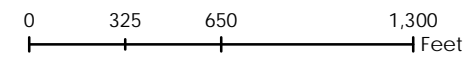
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Prepared by: mLeonard 1/22/2016
 Technical Review by: mDrause 1/22/2016
 Independent Review by: jMoore 1/22/2016

Figure B - Sheet 4 of 9: Land Use and Habitat Coverage Map



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- 8370: Surface water collection basins

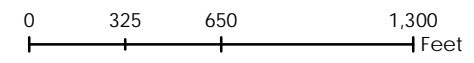
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Coordinate System: NAD 1983 StatePlane Florida East FIPS 0901 Feet



Prepared by: mLeonard 1/22/2016
 Technical Review by: mDrauser 1/22/2016
 Independent Review by: jMoore 1/22/2016

Figure B - Sheet 5 of 9: Land Use and Habitat Coverage Map

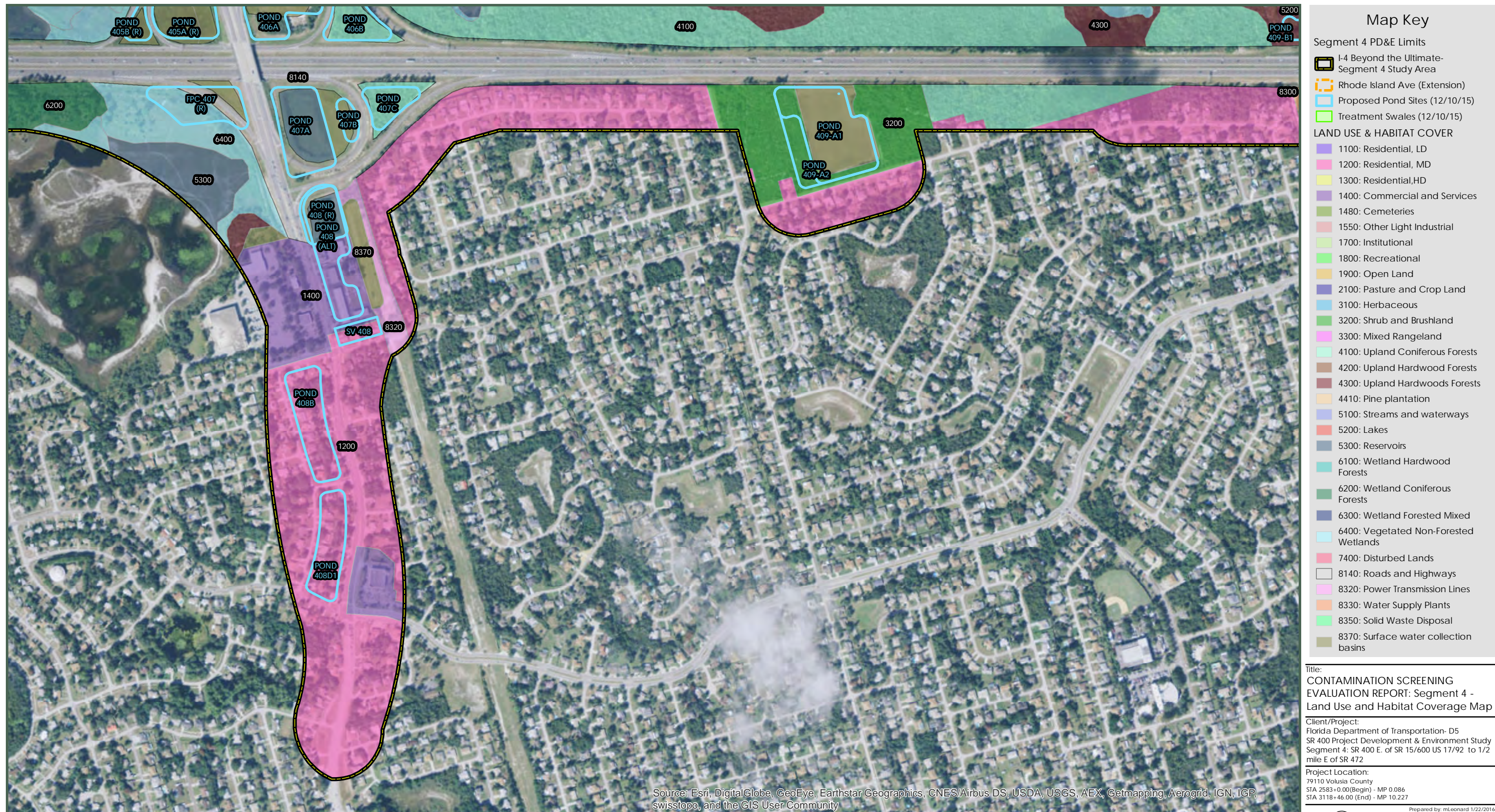


Figure B - Sheet 6 of 9: Land Use and Habitat Coverage Map

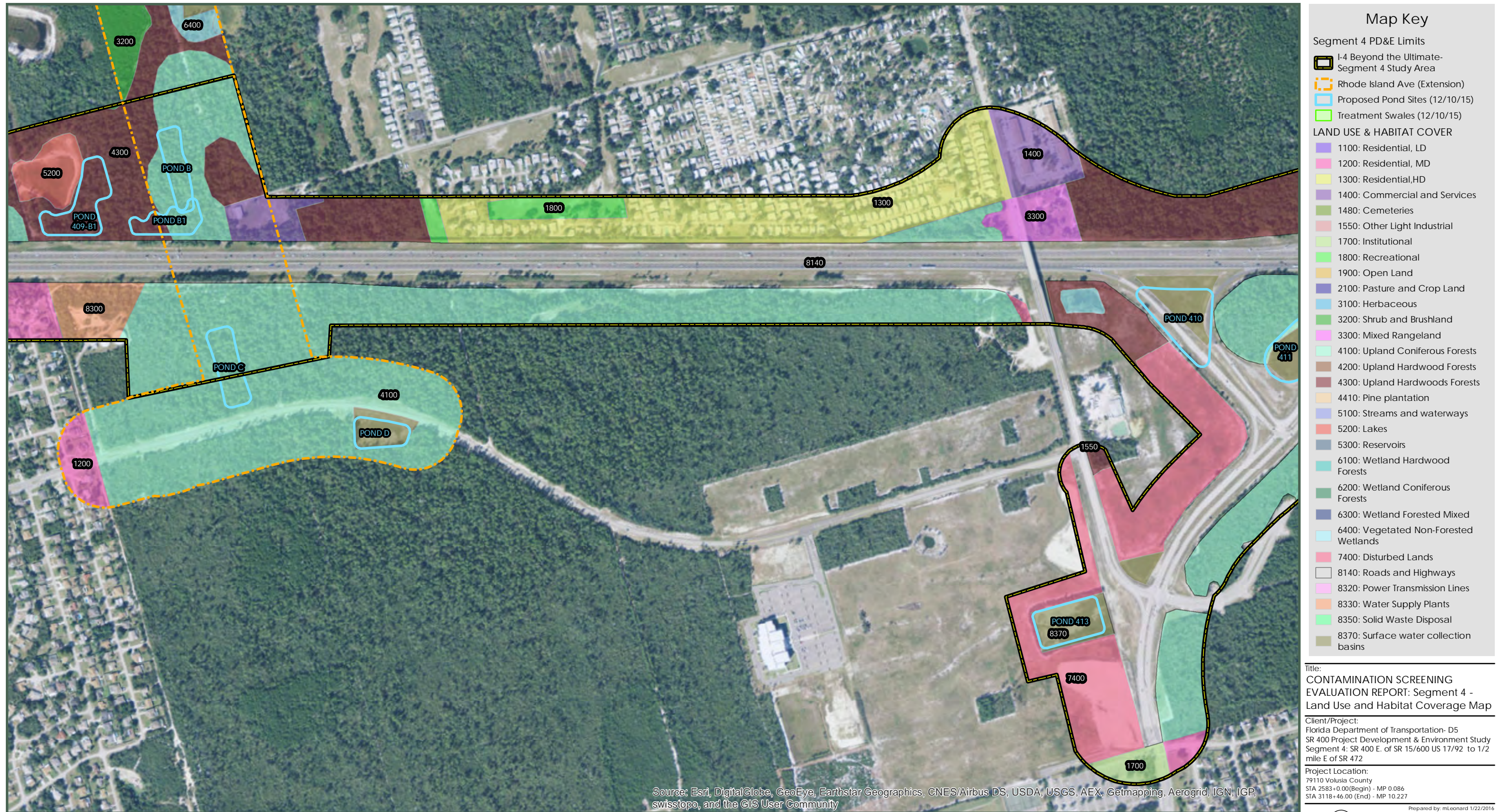


Figure B - Sheet 7 of 9: Land Use and Habitat Coverage Map

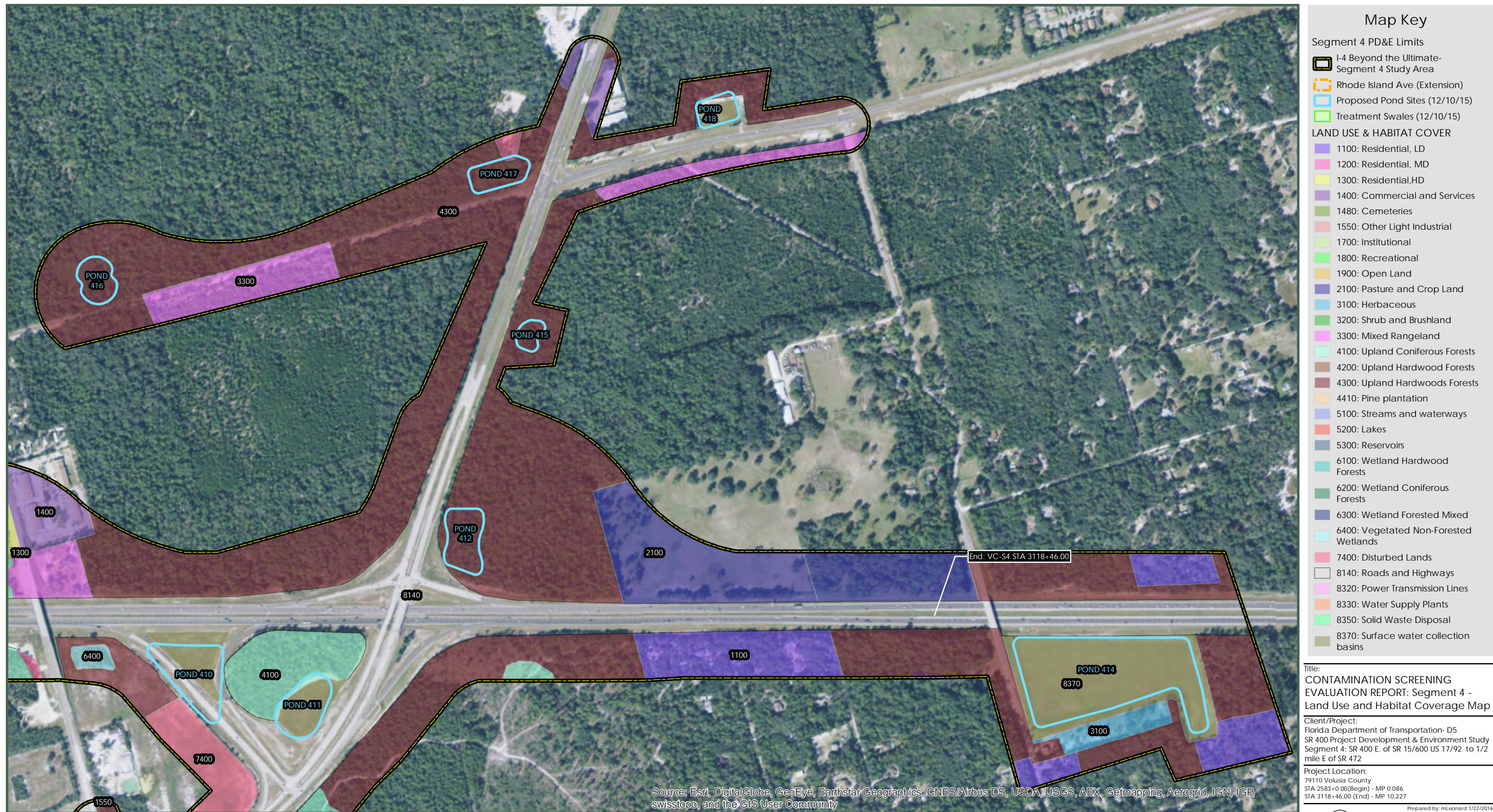


Figure B - Sheet 8 of 9: Land Use and Habitat Coverage Map

1" = 650'

SR 400 (I-4) Project Development and Environment (PD&E) Study | FM No. 432100-1-22-01

2024230168



Map Key

Segment 4 PD&E Limits

- I-4 Beyond the Ultimate-Segment 4 Study Area
- Rhode Island Ave (Extension)
- Proposed Pond Sites (12/10/15)
- Treatment Swales (12/10/15)

LAND USE & HABITAT COVER

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- 1200: Residential, MD
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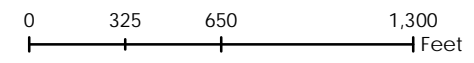
Title:
 CONTAMINATION SCREENING
 EVALUATION REPORT: Segment 4 -
 Land Use and Habitat Coverage Map

Client/Project:
 Florida Department of Transportation- D5
 SR 400 Project Development & Environment Study
 Segment 4: SR 400 E. of SR 15/600 US 17/92 to 1/2
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Project Location:
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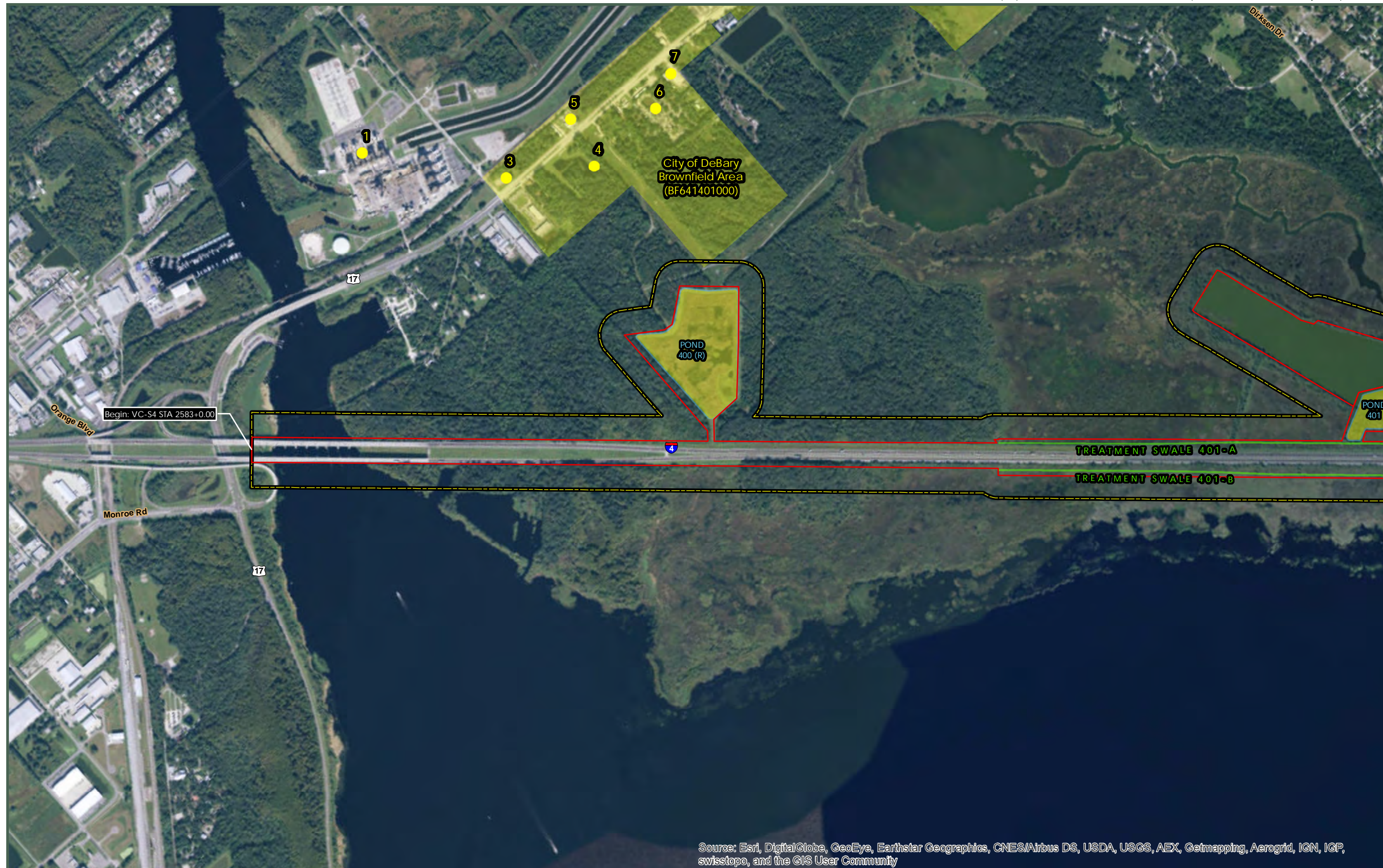
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Coordinate System: NAD 1983 StatePlane Florida East FIPS 0901 Feet



Prepared by: mLeonard 1/22/2016
 Technical Review by: mDrauser 1/22/2016
 Independent Review by: jMoore 1/22/2016

Figure B - Sheet 9 of 9: Land Use and Habitat Coverage Map



Map Key

Segment 4 PD&E Limits

- I-4 Beyond the Ultimate-Segment 4 Study Area
- Rhode Island Ave (Extension)
- I-4 Beyond the Ultimate-Segment 4 R/W (12/10/15)

Proposed Ponds

- Low Risk Ponds 12/10/15
- Medium Risk Ponds 12/10/15
- Treatment Swales (12/10/15)

Site Risk Rating

- NO
- LOW
- MEDIUM

- Gas Pipeline (Florida Gas Transmission Company)
- DeBary Brownfield Area (#BF6414010)

Pond Notes:
 (R) = Recommended; (ALT) = Alternative

Title:
 CONTAMINATION SCREENING EVALUATION REPORT: Segment 4 - Contamination Sites Map

Client/Project:
 Florida Department of Transportation- D5
 SR 400 Project Development & Environment Study
 Segment 4: SR 400 E. of SR 15/600 US 17/92 to 1/2 mile E of SR 472

Project Location:
 79110 Volusia County
 STA 2583+0.00(Begin) - MP 0.086
 STA 3118+46.00 (End) - MP 10.227

Prepared by: mLeonard 1/6/2016
 Technical Review by: mDrauer 1/6/2016
 Independent Review by: Moore 1/6/2016

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Figure C - Sheet 1 of 5: Contamination Sites Map

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Map Key

Segment 4 PD&E Limits

- I-4 Beyond the Ultimate-Segment 4 Study Area
- Rhode Island Ave (Extension)
- I-4 Beyond the Ultimate-Segment 4 R/W (12/10/15)

Proposed Ponds

- Low Risk Ponds 12/10/15
- Medium Risk Ponds 12/10/15
- Treatment Swales (12/10/15)

Site Risk Rating

- NO
- LOW
- MEDIUM

Other Features

- Gas Pipeline (Florida Gas Transmission Company)
- DeBary Brownfield Area (#BF6414010)

Medium Risk Sites:
 Site # 33: Muffler Man
 Site # 40: Weeks Food Delivery- Spill Site

Pond Notes:
 (R) = Recommended; (ALT) = Alternative

Title:
 CONTAMINATION SCREENING EVALUATION REPORT: Segment 4 - Contamination Sites Map

Client/Project:
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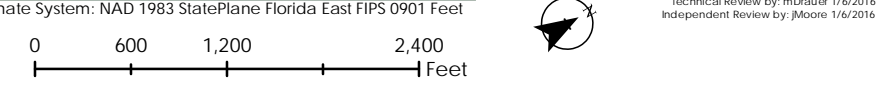
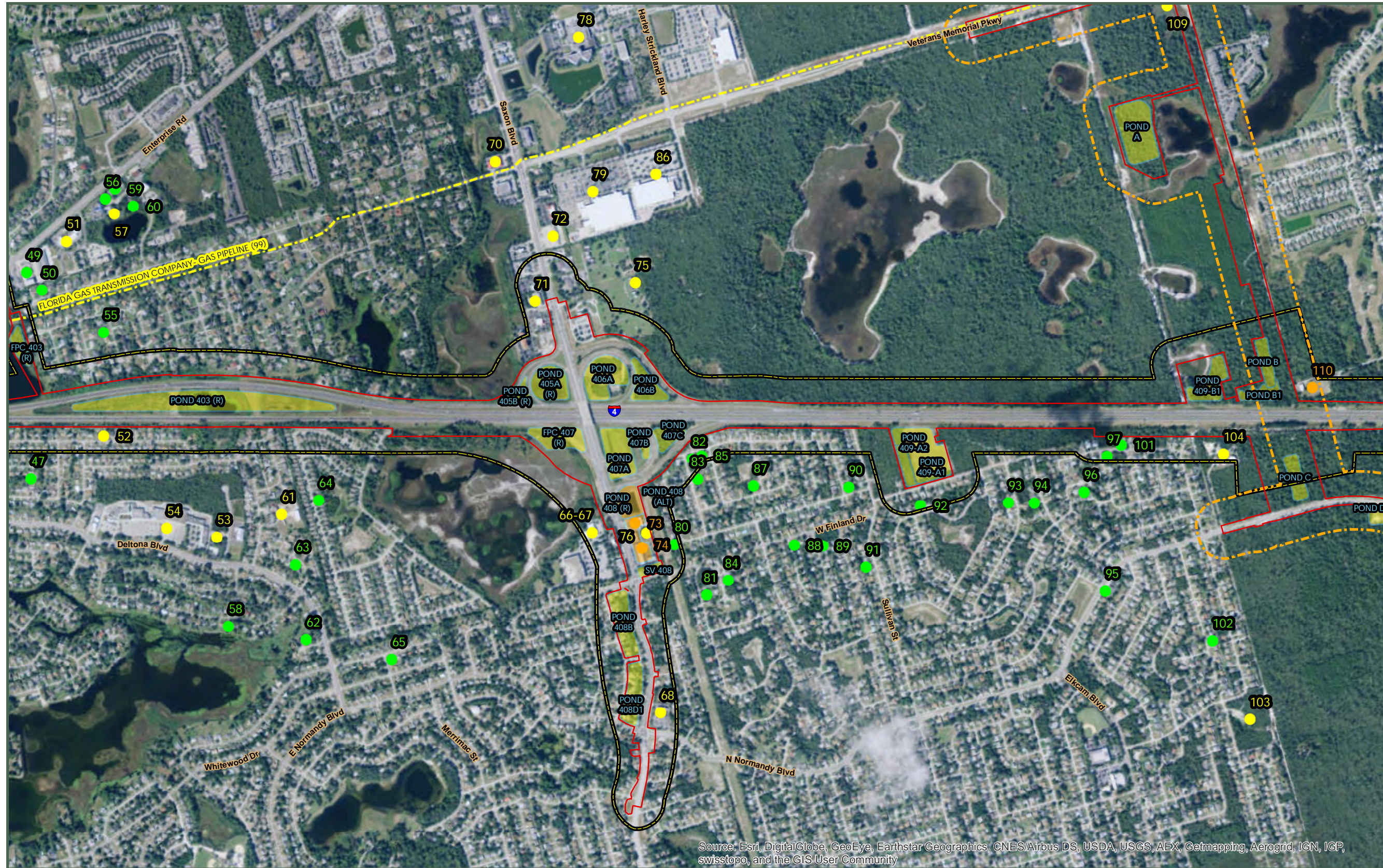


Figure C - Sheet 2 of 5: Contamination Sites Map



Map Key

Segment 4 PD&E Limits

- I-4 Beyond the Ultimate-Segment 4 Study Area
- Rhode Island Ave (Extension)
- I-4 Beyond the Ultimate-Segment 4 R/W (12/10/15)

Proposed Ponds

- Low Risk Ponds 12/10/15
- Medium Risk Ponds 12/10/15
- Treatment Swales (12/10/15)

Site Risk Rating

- NO
- LOW
- MEDIUM

- Gas Pipeline (Florida Gas Transmission Company)
- DeBary Brownfield Area (#BF6414010)

Medium Risk Sites:
 Site # 73: Deltona Citgo
 Site # 74: Saxon Plaza
 Site # 110: Pines Golf Club & Maintenance Facility
 Ponds 408, 408B & 408D-1

Pond Notes:
 (R) = Recommended; (ALT) = Alternative

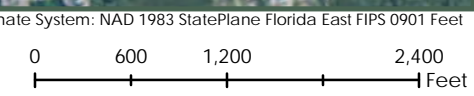
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Prepared by: mLeonard 1/6/2016
 Technical Review by: mDrauer 1/6/2016
 Independent Review by: jMoore 1/6/2016

Figure C - Sheet 3 of 5: Contamination Sites Map



Map Key

Segment 4 PD&E Limits

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Proposed Ponds

- Low Risk Ponds 12/10/15
- Medium Risk Ponds 12/10/15
- Treatment Swales (12/10/15)

Site Risk Rating

- NO
- LOW
- MEDIUM

Gas Pipeline (Florida Gas Transmission Company)

DeBary Brownfield Area (#BF6414010)

Medium Risk Sites:
 Site # 105: Vacant Wooded Parcels
 Site # 110: Pines Golf Club & Maintenance Facility
 Pond 417

Pond Notes:
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Title:
 CONTAMINATION SCREENING EVALUATION REPORT: Segment 4 - Contamination Sites Map

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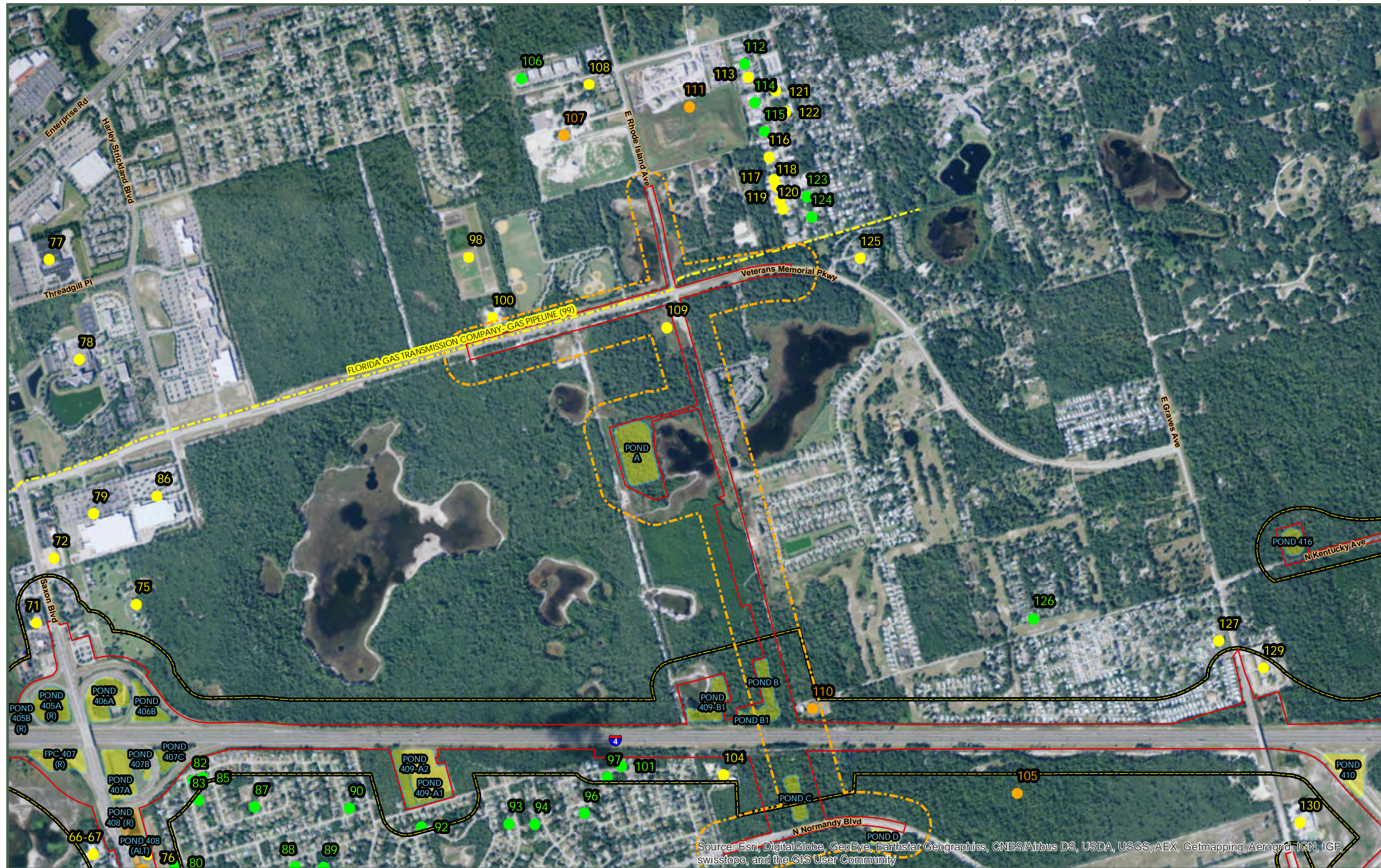
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Figure C - Sheet 4 of 5: Contamination Sites Map

Coordinate System: NAD 1983 StatePlane Florida East FIPS 0901 Feet

0 600 1,200 2,400 Feet

Prepared by: mLeonard 1/6/2016
 Technical Review by: mDrauer 1/6/2016
 Independent Review by: Moore 1/6/2016



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- Treatment Swales (12/10/15)

Site Risk Rating

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- MEDIUM

Other Features

- Gas Pipeline (Florida Gas Transmission Company)
- DeBary Brownfield Area (#BF6414010)

Medium Risk Sites:

- Site # 73: Deltona Citgo
- Site # 105: Vacant Wooded Parcels
- Site # 107: Harty Tractor Services, Inc
- Site # 110: Pines Golf Club & Maintenance Facility
- Site # 111: G.E.L Corporation Site

Pond 408

Pond Notes:
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 CONTAMINATION SCREENING EVALUATION REPORT: Segment 4 - Contamination Sites Map

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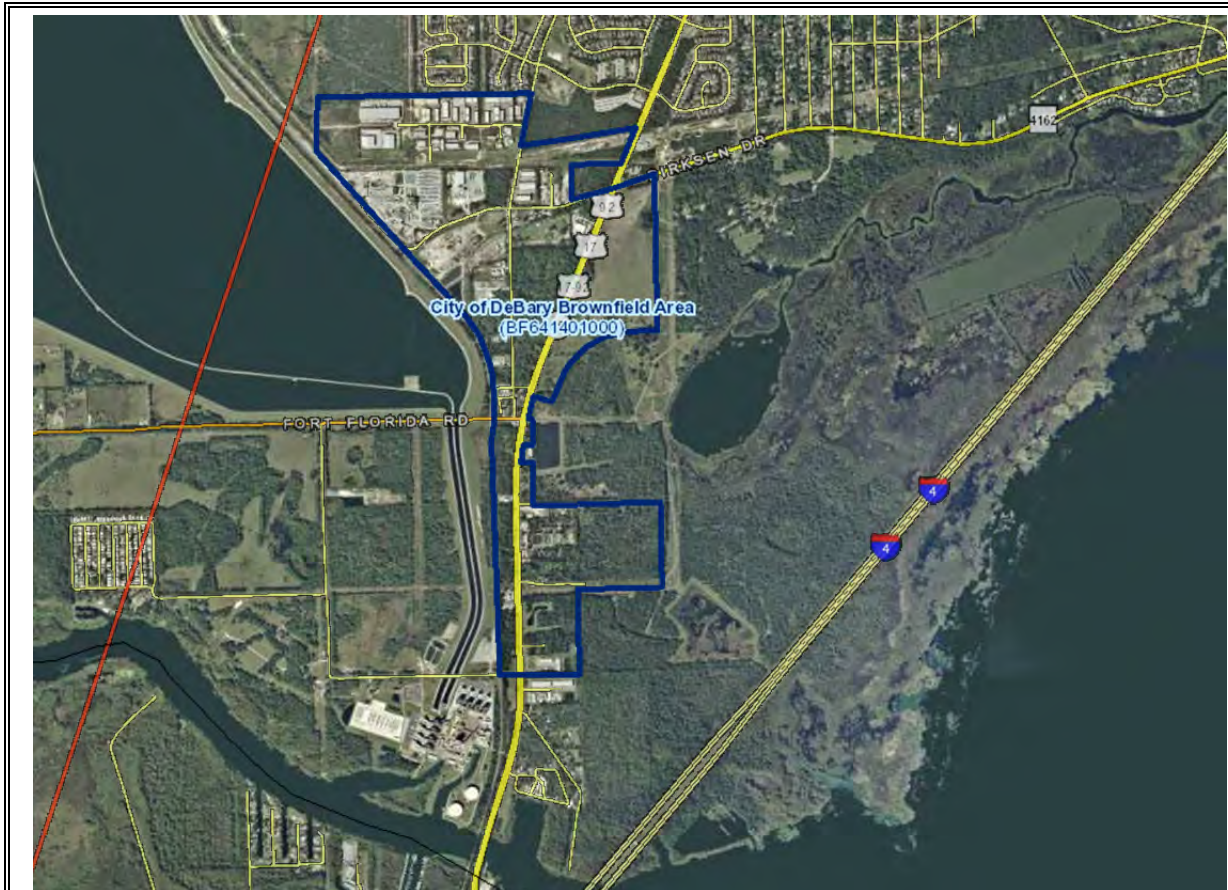
Figure C - Sheet 5 of 5: Contamination Sites Map

APPENDIX B

I-4 SEGMENT 4 CSER SITE PHOTOS



Site 1: FPL Sanford Plant



Site 2: City of DeBary Brownfield Area



Site 3: FDOT Vacant Property, formerly DeBary Tank No. 3



Site 4: Granite Construction Site



Site 5: DeBary Radiator



Site 6: Clayton & Sons Salvage Yard



Site 7: Adkins Truck Repair, formerly Sunbelt Auto Carriers



Site 8: Private Residence listed as Rich Fray Home Improvement Inc.



Site 9: Duke Energy FL Turner Plant #B



Site 10: Private Residence listed as Certified Renovations LLC



Site 11: The Pantry and Kangaroo Express #1269



Site 12: Lil Sammy's Food Mart



Site 13: Deltona LS #5 Generator



Site 14: Travelodge, formerly Deltona Best Western Motel



Site 15: FDOT Diesel Powered Generator



Site 16: Private Residence listed as Allgood Towing LLC



Site 17: City of Deltona, formerly Harbor Branch Environmental



Site 18: Deltona Middle School



Site 19: Joseph Thomas DPM PA



Site 20: Site listed as Mike Jones Painting



Site 21: Physicians Injury Care Center



Site 22: Sunbelt Micro Electronics Inc.



Site 23: Private Residence listed as Midnight Welding & Fabricating



Site 24: Private Residence listed as M C Framing



Site 25: Private Residence listed as Frank Jones Towing Service



Site 26: City of DeBary Bill Keller Park



Site 27: Private Residence listed as Richard Crews Painting Corporation



Site 28: Private Residence listed as Prophotos



Site 29: Deltona Fountains Plaza Multiple Businesses



Site 30: Deltona Discount Market, formerly Deltona Citgo and Cumberland Farms #0988



Site 31: Deltona Shell, formerly First Coast Energy #2519 and Amoco Service Station #60134



Site 32: David All DDS



Site 33: Muffler Man, formerly Shell First Coast Energy #3101 and Deltona BP #24521



Site 34: Bessette Family Chiropractic



Site 35: Circle K #4385



Site 36: Justin Square Plaza Multiple Businesses



Site 37: Andy's Seven LLC, Lil Sammy's Food Mart, formerly Lil Champ Food Stores



Site 38: Deltona Food Station, formerly Deltona Chevron



Site 39: Michael Zerivitz DDS



Site 40: Weeks Seafood Delivery Spill Site



Site 41: OC Collision Center, formerly Joe's Body Shop



Site 42: Residential Building Supply



Site 43: Enterprise Industrial Park Multiple Businesses



Site 43: Enterprise Industrial Park Multiple Businesses



Site 44: Private Residence listed as Jose's Auto Detailing



Site 45: Private Residence listed as Lockhart Painting Services Inc.



Site 46: Private Residence listed as C & V Painting & Remodeling LLC



Site 47: Private Residence listed as Jesse M Powers



Site 48: Site listed as Pell's Citrus & Nursery



Site 49: Ace Air Conditioning, formerly Pool World of Volusia Inc.



Site 50: Private Residence listed as All Site Home Improvement



Site 51: Nancy's Nails



Site 52: Private Residence listed as D & R Painting & Home Remodeling



Site 53: Deltona Boulevard Economic Development Zone



Site 53: Deltona Plaza Multiple Businesses



Site 54: Deltona Plaza Multiple Businesses



Site 55: Private Residence listed as R White Photography LLC



Site 56: Humberto Dominguez MD



Site 57: Maria Suarez DDS



Site 58: Private Residence listed as Robert Rosenberger Enterprises



Site 59: Cordoba Orthodontics



Site 60: Joseph V Calderone DMD



Site 61: Deltona Utilities



Site 61: Deltona Utilities



Site 62: Private Residence listed as Chris Bailey Painting



Site 63: Private Residence listed as Mike Gerkin



Site 64: Private Residence listed as Paint on Demand Inc.



Site 65: Private Residence listed as Fernando Auto Electric



Site 66: E Z Play Internet Café, formerly Crown Cleaners



Site 67: Allure Nail Spa Site



Site 68: Walgreens #07241



Site 69: Florida Injury/Cape Vista Dental



Site 70: Circle K #5979



Site 71: Racetrac #641



Site 72: Saxon Square Plaza Multiple Businesses



Site 72: Saxon Square Plaza Multiple Businesses - Pro Line Cleaners



Site 73: Deltona Citgo, formerly Chevron Saxon Boulevard and Expert Car Care



Site 74: Saxon Plaza Multiple Businesses – Dry Cleaners



Site 74: Saxon Plaza Multiple Businesses – Designer Nails



Site 75: Deltona Memorial Gardens Maintenance Facility



Site 76: Cell Tower with Diesel Generator



Site 77: Lowes #467



Site 78: Florida Hospital Fish Memorial



Site 79: Wal-Mart Supercenter #563



Site 79: Wal-Mart Supercenter #563



Site 80: Private Residence listed as D & T Tires Inc.



Site 81: Private Residence listed as RS Painting Solutions Inc.



Site 82: Private Residence listed as Carmen Torres Affordable Construction



Site 83: Private Residence listed as JNF Improvements & Services Inc.



Site 84: Private Residence listed as Niaples Painting



Site 85: Private Residence listed as Miracle Brothers Site Development Corporation



Site 86: Home Depot #6323



Site 87: Private Residence listed as Hauling for Cheap



Site 88: Private Residence listed as New World Painting



Site 89: Private Residence listed as Don's Acrylic Decking Inc.



Site 90: Private Residence listed as GD Painting



Site 91: Private Residence listed as SDQ Air & Mechanical Inc.



Site 92: Private Residence listed as Jimmy's Auto Detailing



Site 93: Private Residence listed as Creations



Site 94: Private Residence listed as Reliable Painting



Site 95: Private Residence listed as The Immaculate Reign



Site 96: Private Residence listed as Arnaldo Torres LLC



Site 97: Private Residence listed as Reliable Computers



Site 98: Four Towns Wastewater Treatment Plant



Site 99: Florida Gas Transmission Company Gas Pipeline – Looking south from north of Rhode Island Avenue



Site 100: Halifax Health Hospice Care Center



Site 101: Private Residence listed as Eric Ray Frankton



Site 102: Private Residence listed as Chico Kools Technologies



Site 103: Deltona Utilities Vicksburg Facility



Site 104: City of Deltona WTP #17



Site 105: Vacant Wooded Parcels



Site 106: CNH Structural LLC



Site 107: Harty Tractor Services Inc. including Land Clearing Debris Site



Site 107: Harty Tractor Services Inc. including Land Clearing Debris Site



Site 107: Harty Tractor Services Inc. including Land Clearing Debris Site



Site 108: Cell Tower with Diesel Powered Generator



Site 109: Orange City Area Debris Staging area



Site 110: The Pines Golf Club and Maintenance Facility



Site 110: The Pines Golf Club and Maintenance Facility – rusted containers in pavilion



Site 111: G.E.L. Corporation Site



Site 111: G.E.L. Corporation Site



Site 112: Aquaticart Designs and Pioneer Woodcraft Corporation



Site 113: Harry's Towing Services Inc.



Site 114: Stephen's Motorworks Inc., formerly Servello & Son Inc.



Site 115: Santiago Auto Body, formerly Garland Transmissions



Site 116: Site listed as West Volusia Welding



Site 117: Juan Carlos Auto Repair, formerly IFEC Auto Repair and MC Auto Repair



Site 118: Keller's Storage & Work Shop, formerly Harris Mobile Recycling



Site 119: Multiple Businesses located at 1070 Shadick Drive



Site 120: Gator Radiator LLC



Site 121: Chinchor Electric Inc.



Site 122: Universal Packaging & Machinery Sales Corporation



Site 123: A&J Auto Repair, formerly RC Auto Sales Inc.



Site 124: Former Site of Attachment Sales Inc.



Site 125: John Knox Village



Site 126: Private Residence listed as Hancock Painting



Site 127: Orange City RV Resort and site listed as Ed Young's Painting & Pressure Cleaning



Site 128: Racetrac #2334



Site 129: Orange City Village Square Plaza Multiple Businesses



Site 130: Maschmeyer Concrete Deltona, formerly Inland Materials Inc.



Site 131: Cemex Orange City Ready-Mix Plant



Site 132: Kobrin Builders Supply Inc.



Site 133: Sieg & Ambachtsheer Inc.

I-4 PD&E Segment 4 Pond Site Photographs



Pond Site 400



Pond Site 401



Treatment Swale 401A



Treatment Swale 401B



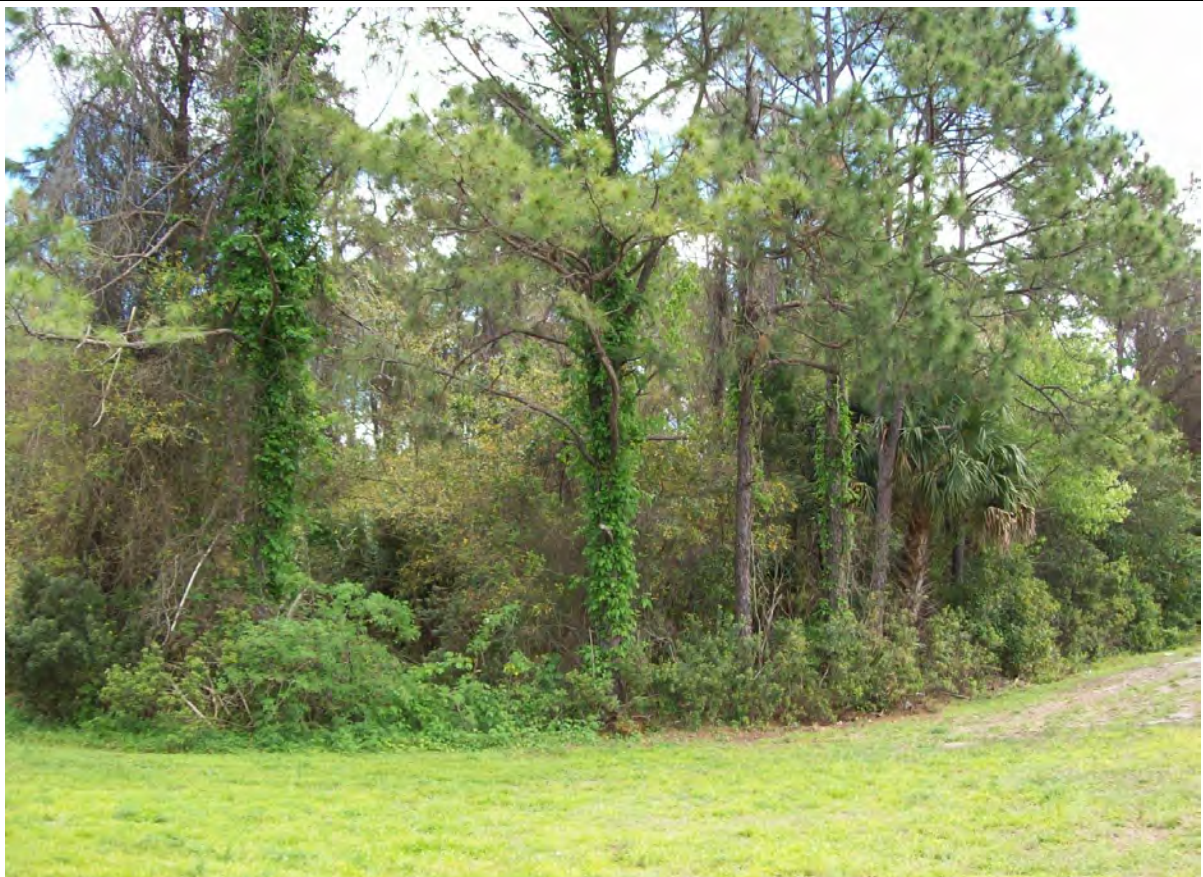
Pond Site 402A



Pond Site 402B



Pond Site 402C



Pond Site 402D



Pond Site 402E



Pond Site 402F



Pond Site FPC 403



Pond Site 403: southern existing pond



Pond Site 403: middle existing pond



Pond Site 403: northern existing pond



Pond Site 405A



Pond Site 405B



Pond Site 406A



Pond Site 406B



Pond Site FPC 407



Pond Site 407A



Pond Site 407B



Pond Site 407C



Pond Site 408 and Alternative



Stormwater Vault 408



Pond Site 408B



Pond Site 408D1



Pond Site 409-A1



Pond Site 409-A2



Pond Site 409-B1



Pond Site A



Pond Site B



Pond Site B1



Pond Site C



Pond Site D



Pond Site 410



Pond Site 411



Pond Site 412



Pond Site 413



Pond Site 414



Pond Site 415



Pond Site 416



Pond Site 417



Pond Site 418

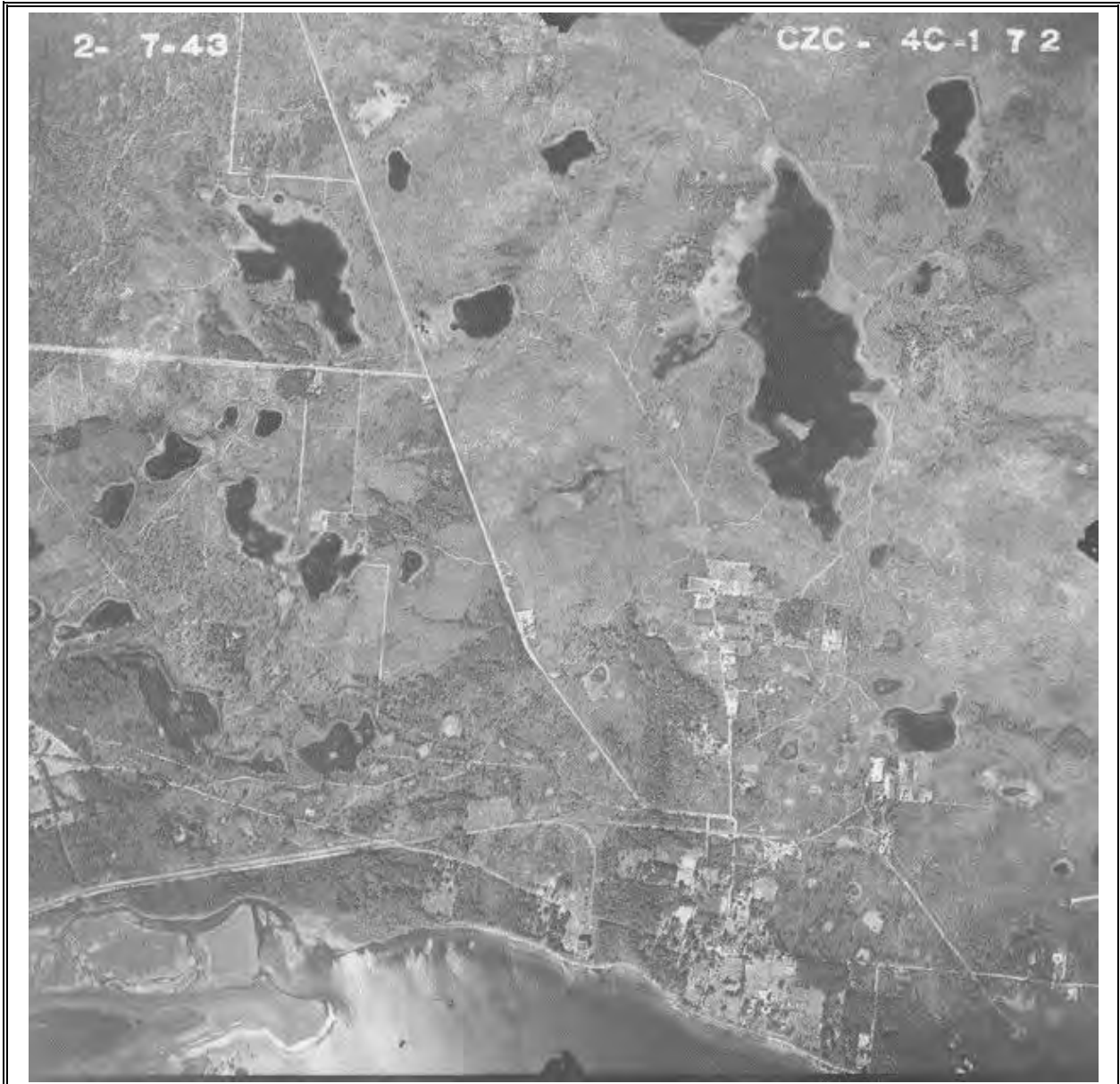
APPENDIX C



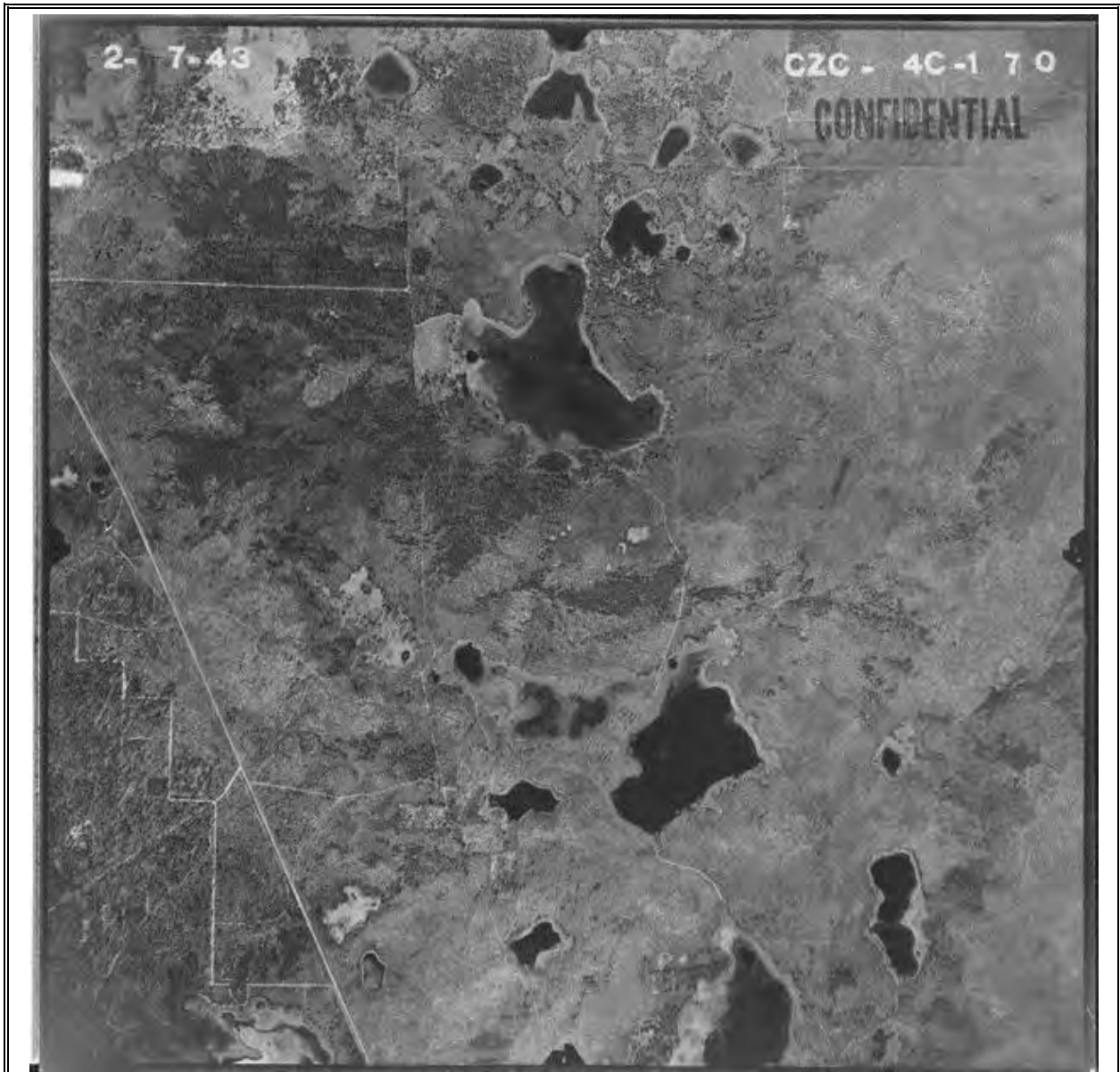
Aerial Photography: 1943A



Aerial Photography: 1943B



Aerial Photography: 1943C



Aerial Photography: 1943D



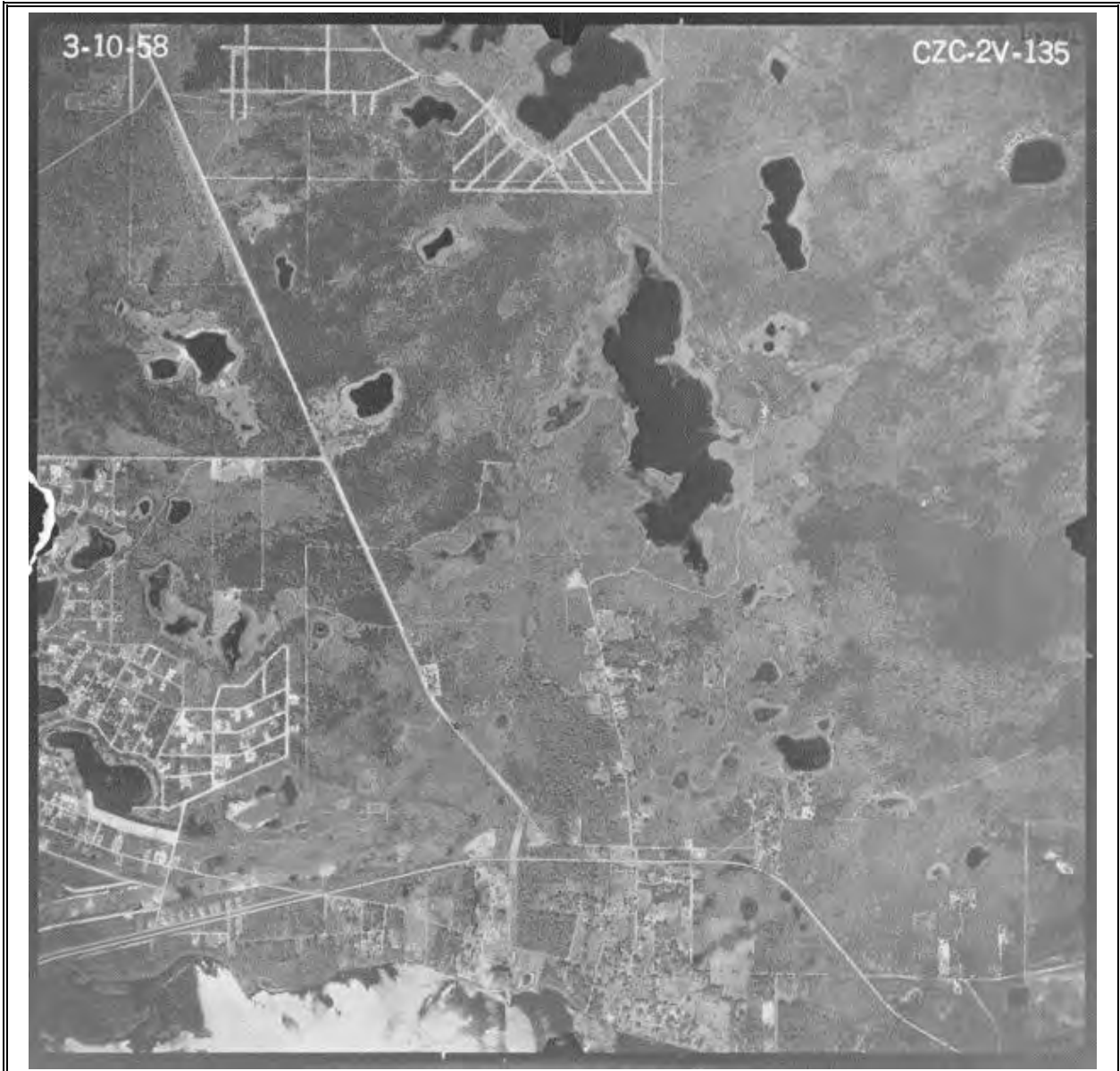
Aerial Photography: 1951A



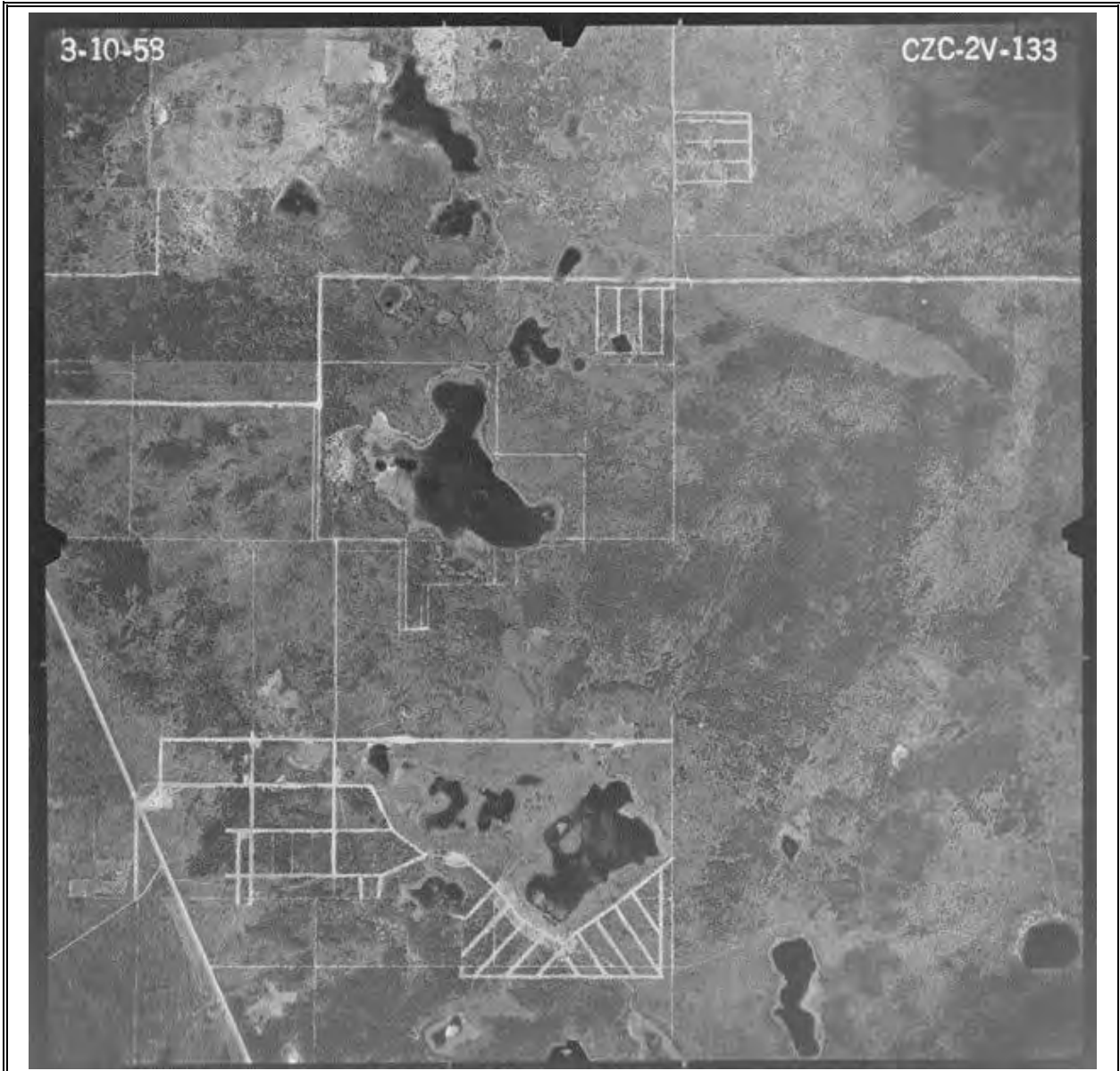
Aerial Photography: 1951B



Aerial Photography: 1958A



Aerial Photography: 1958B



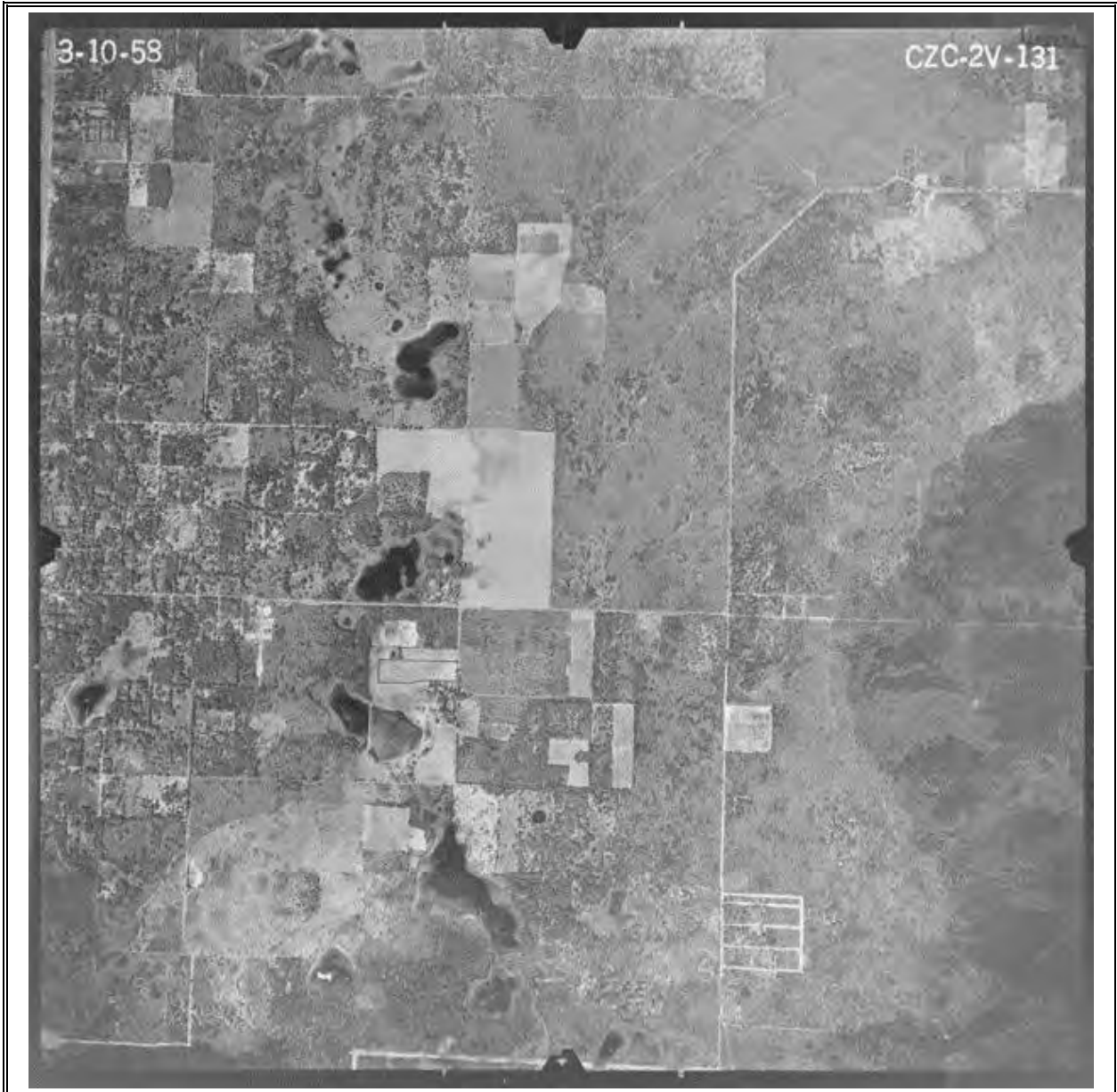
Aerial Photography: 1958C

3-10-58

CZC-2V-132



Aerial Photography: 1958D



Aerial Photography: 1958E



3-10-58

CZC-2V-130

Aerial Photography: 1958F



Aerial Photography: 1973A



Aerial Photography: 1973B



Aerial Photography: 1973C



Aerial Photography: 1973D



Aerial Photography: 1980A



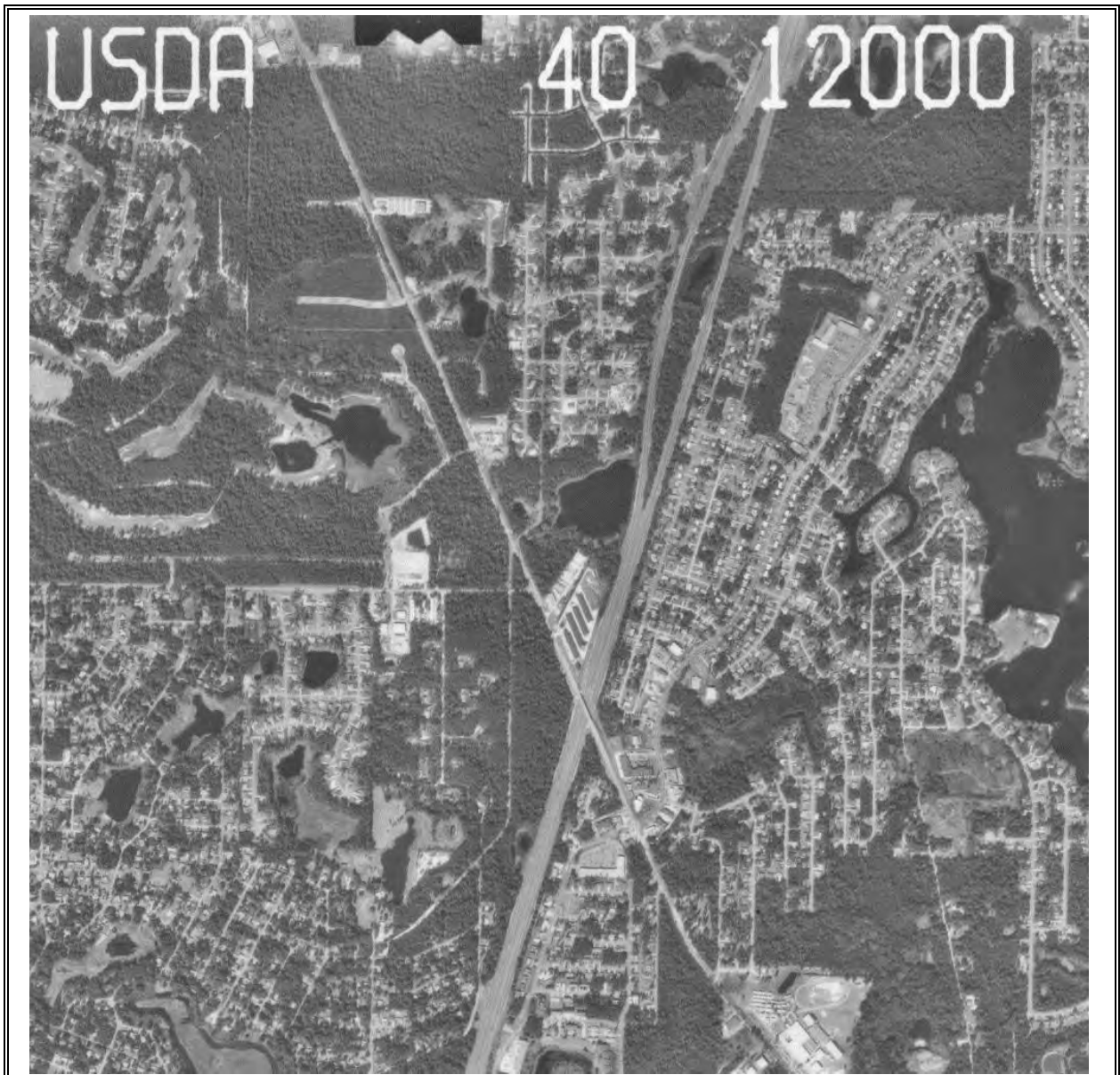
1- 2-80

VCOG-1-133

Aerial Photography: 1980B



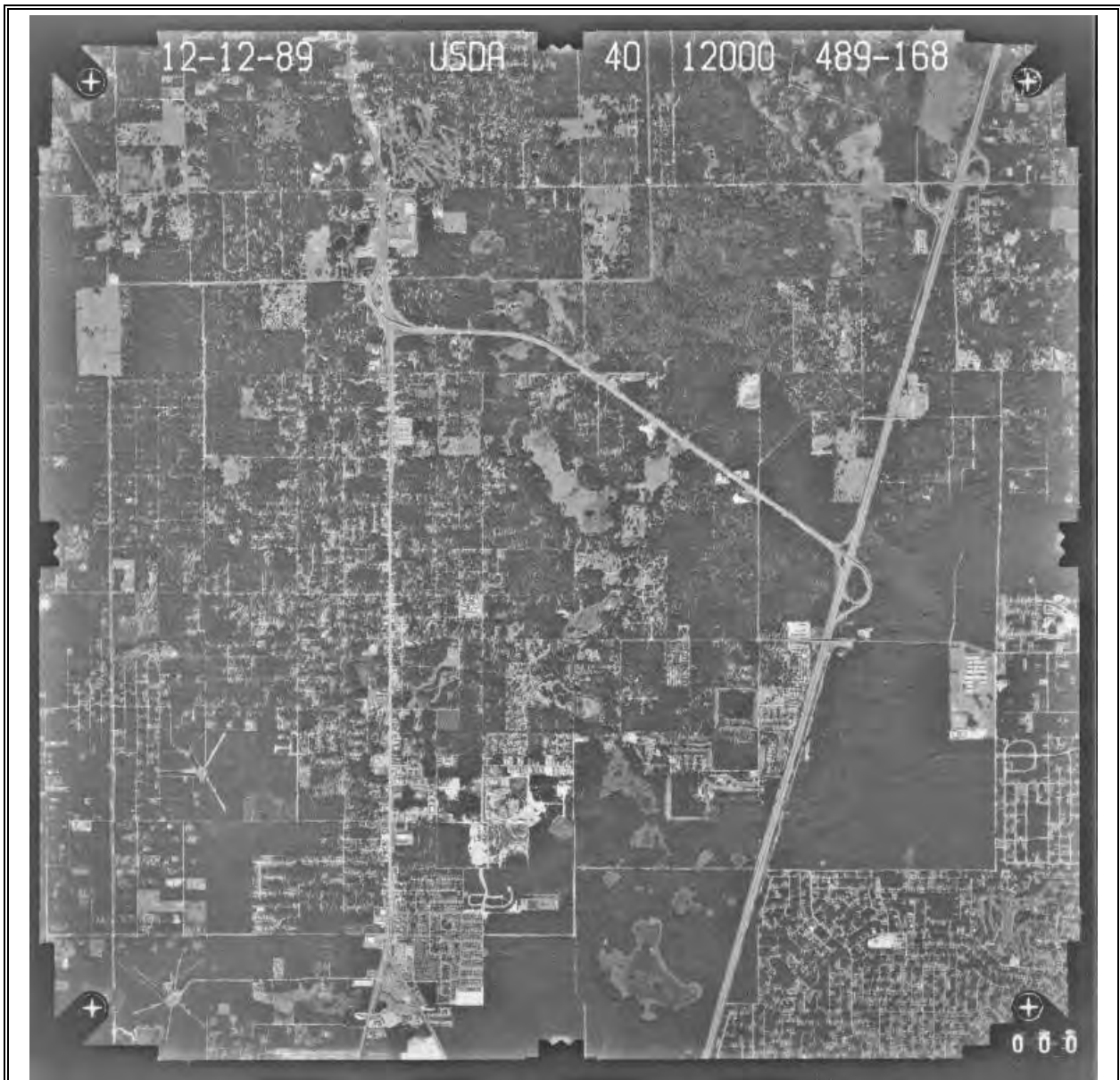
Aerial Photography: 1989A



Aerial Photography: 1989B



Aerial Photography: 1989C



Aerial Photography: 1989D

APPENDIX D

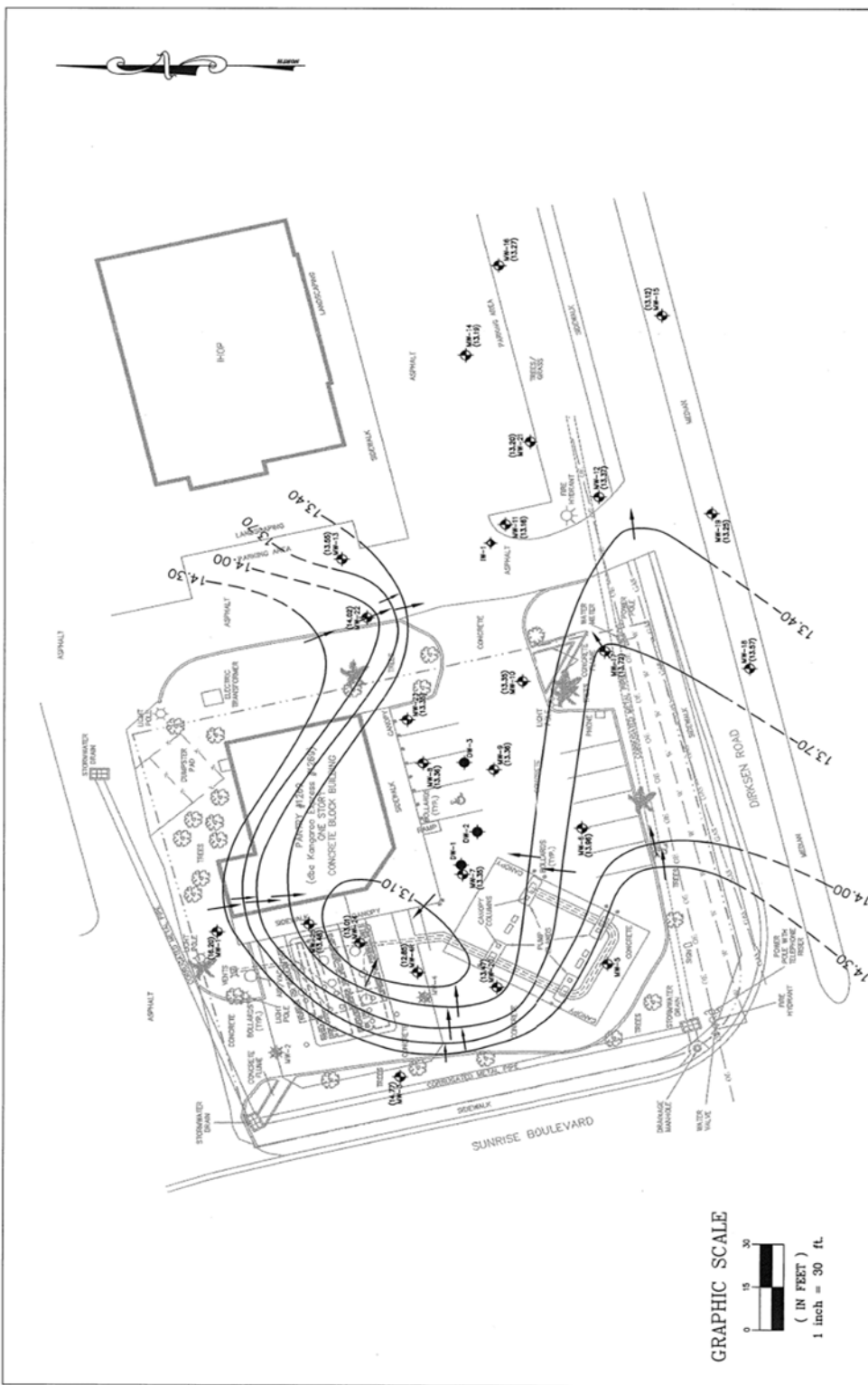


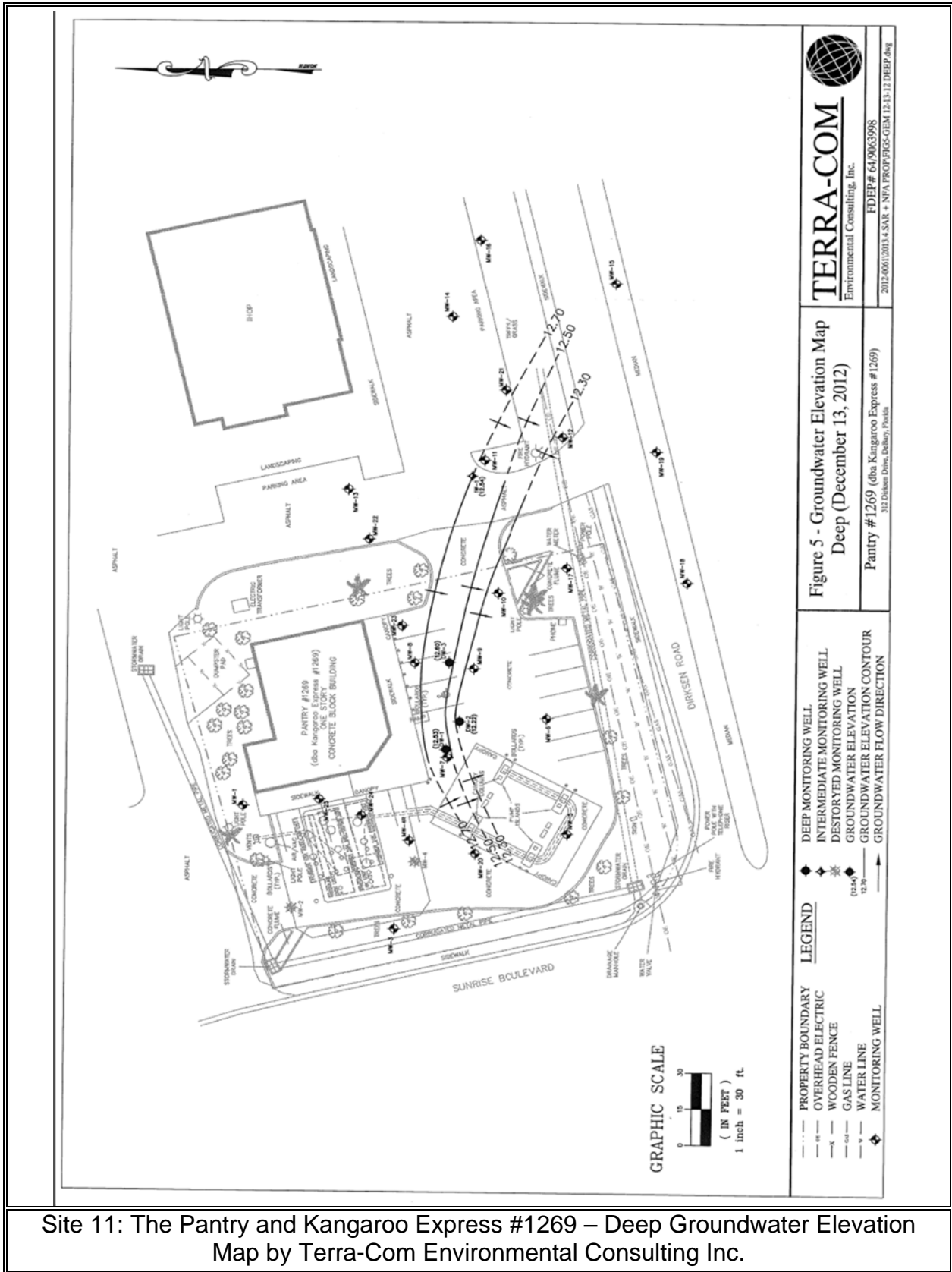
Figure 4 - Groundwater Elevation Map Shallow (December 13, 2012)

Pantry #1269 (dba Kangaroo Express #1269)
332 Dolsman Drive, Dade City, Florida

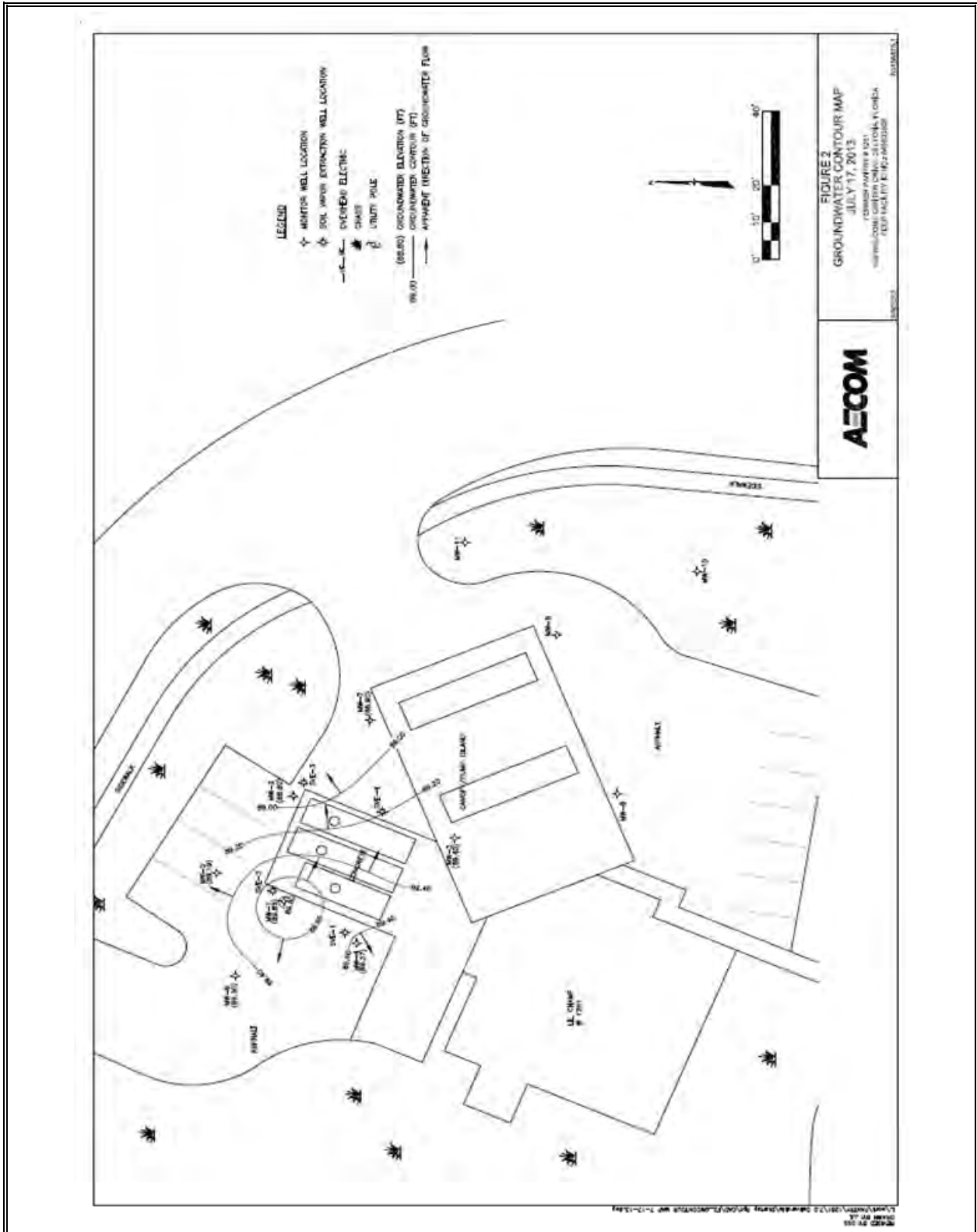
FDEP# 649063998
2012.0661/2013.4.SAR # NFA PROFFIG-GEM 12-13-12 SHALLOW.dwg

LEGEND	
— · — · —	PROPERTY BOUNDARY
— — — — —	OVERHEAD ELECTRIC
— X — X —	WOODEN FENCE
— — — — —	GAS LINE
— — — — —	WATER LINE
◆	MONITORING WELL
◆	DEEP MONITORING WELL
◆	INTERMEDIATE MONITORING WELL
◆	DESTROYED MONITORING WELL
◆ (13.19)	GROUNDWATER ELEVATION
◆ (14.30)	GROUNDWATER ELEVATION CONTOUR
→	GROUNDWATER FLOW DIRECTION

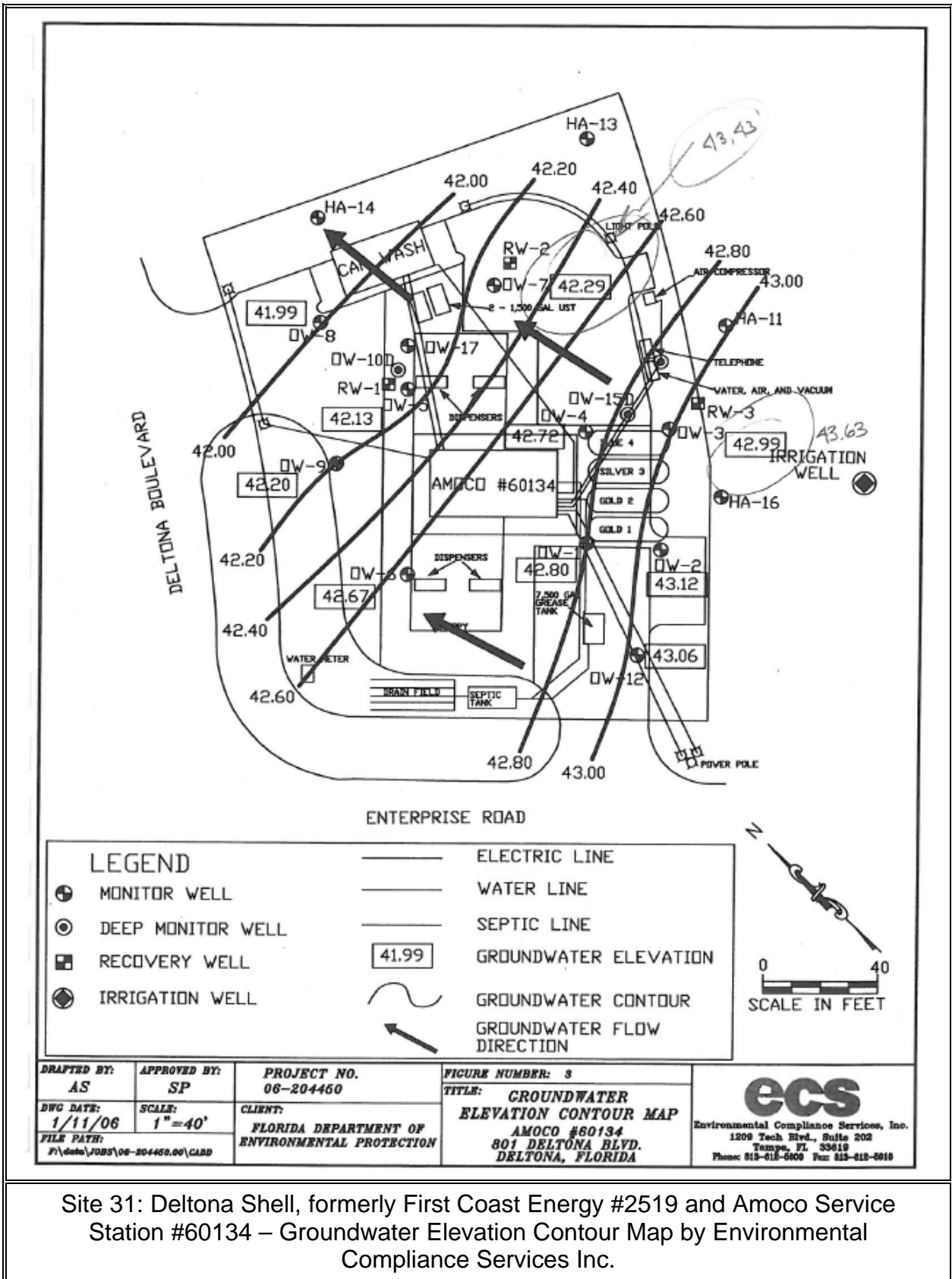
Site 11: The Pantry and Kangaroo Express #1269 – Shallow Groundwater Elevation Map by Terra-Com Environmental Consulting Inc.



Site 11: The Pantry and Kangaroo Express #1269 – Deep Groundwater Elevation Map by Terra-Com Environmental Consulting Inc.



Site 12: Lil Sammy's Food Mart – Groundwater Contour Map by AECOM Technical Services Inc.

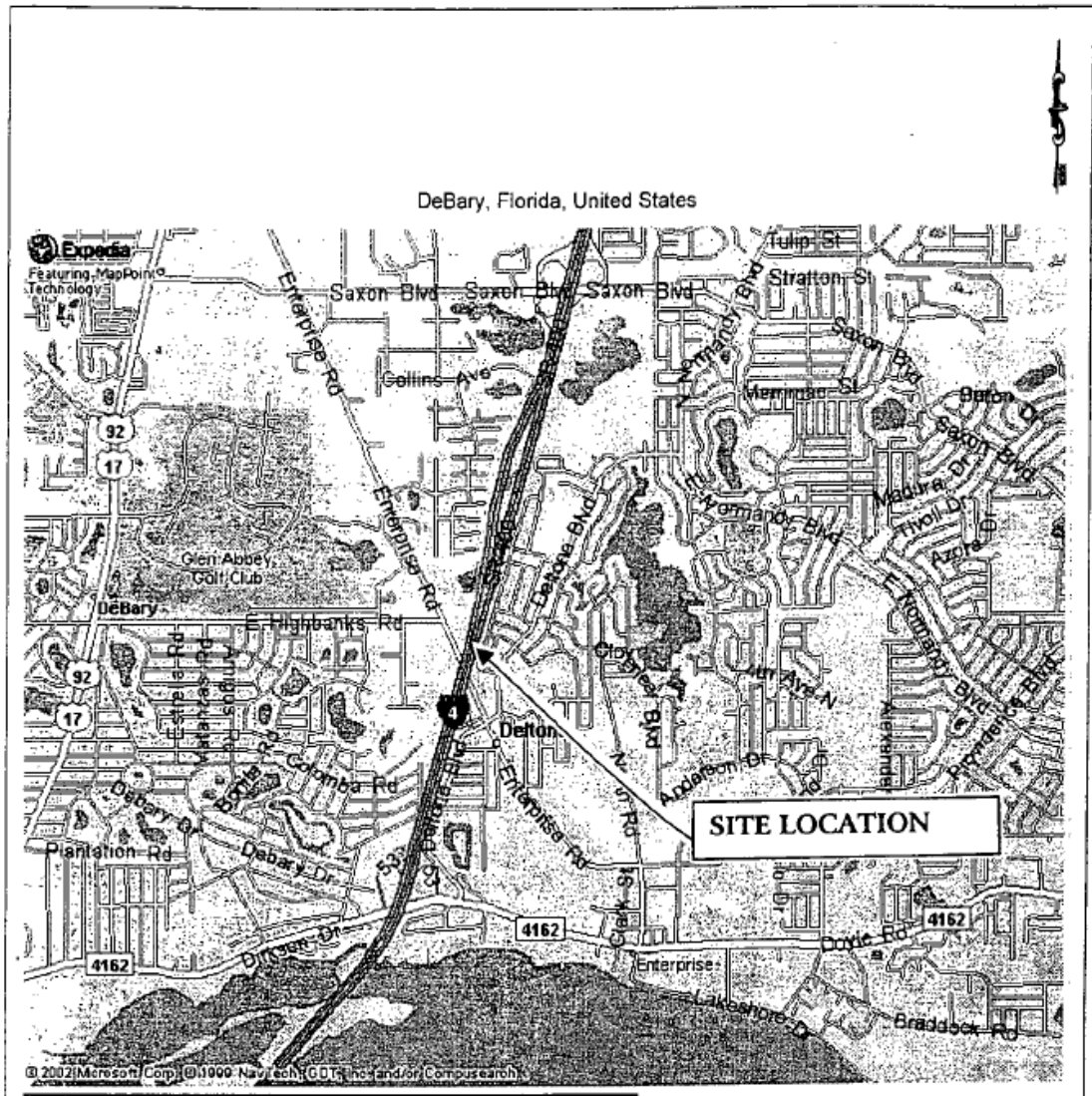



LEGEND	
⊕	MONITOR WELL
⊙	DEEP MONITOR WELL
⊞	RECOVERY WELL
⊗	IRRIGATION WELL
—	ELECTRIC LINE
—	WATER LINE
—	SEPTIC LINE
41.99	GROUNDWATER ELEVATION
~	GROUNDWATER CONTOUR
→	GROUNDWATER FLOW DIRECTION

DRAFTED BY: AS	APPROVED BY: SP	PROJECT NO. 06-204460	FIGURE NUMBER: 3
DWG DATE: 1/11/06	SCALE: 1"=40'	CLIENT: FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION	TITLE: GROUNDWATER ELEVATION CONTOUR MAP AMOCO #60134 801 DELTONA BLVD. DELTONA, FLORIDA
FILE PATH: F:\data\JOBS\06-204460.00\CARD			

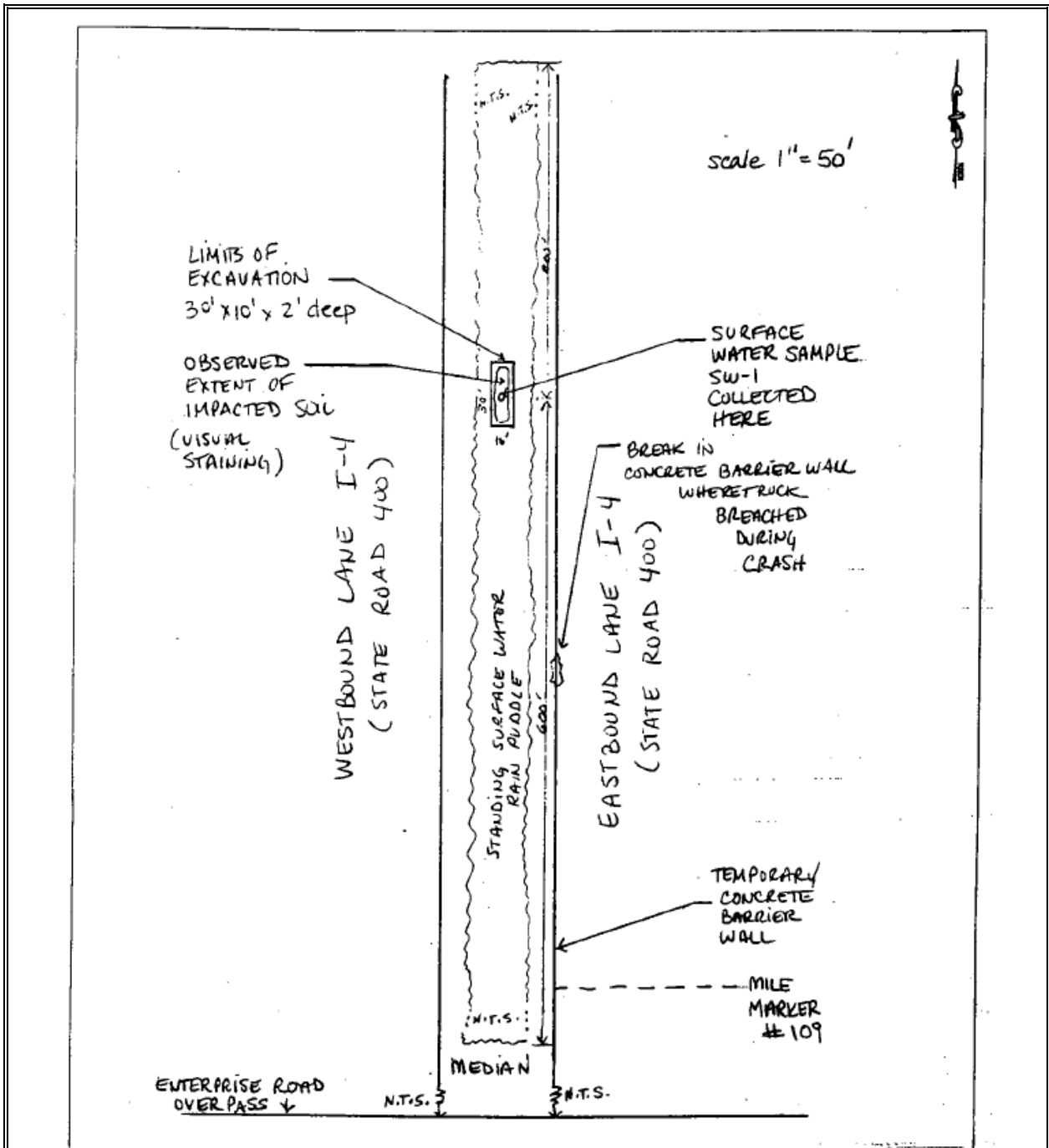
ecs
Environmental Compliance Services, Inc.
1209 Tech Blvd., Suite 202
Tampa, FL 33619
Phone: 813-615-6000 Fax: 813-615-6010


Site 31: Deltona Shell, formerly First Coast Energy #2519 and Amoco Service Station #60134 – Groundwater Elevation Contour Map by Environmental Compliance Services Inc.



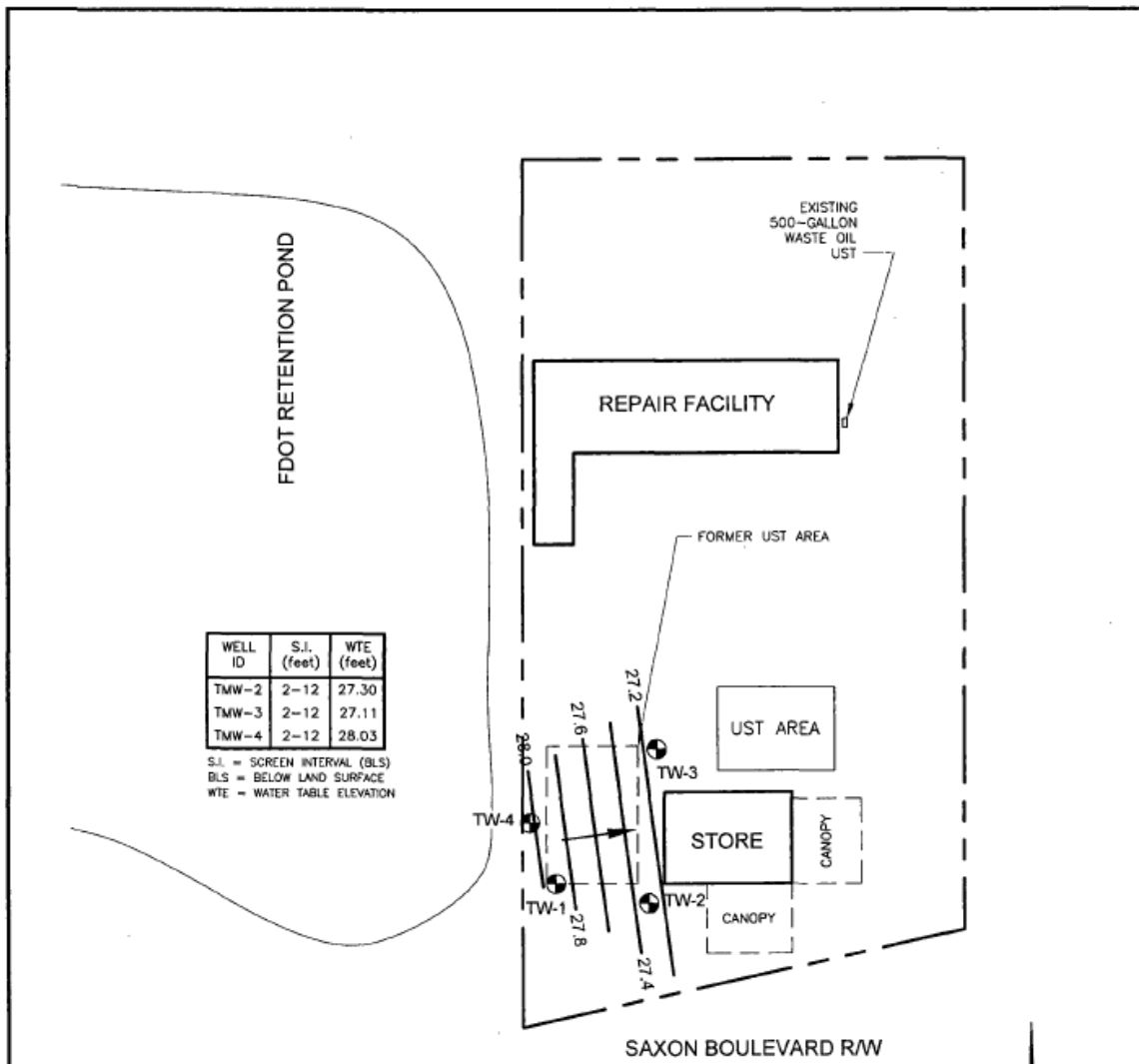
<p>GRANITE CONSTRUCTION COMPANY</p>	<p>DATE 9/18/2002</p>	<p>JOB NO. J0216</p>	<p>1A</p>
 <p>Valerie R. Francisco, P.G. 503 South 57th Street Palm River, Florida 33619</p>	<p>SITE LOCATION MAP</p> <p>WEEKS SEAFOOD DIESEL TRUCK SPILL MEDIAN OF I-4, MILE MARKER #109 DEBARY, VOLUSIA COUNTY, FLORIDA</p>		

Site 40: Weeks Seafood Delivery Spill Site – Site Location Map by Valerie R. Francisco P.G., P.A.



 Valerie R. Francisco, P.G. 503 South 57th Street Palm River, Florida 33619	GRANITE CONSTRUCTION COMPANY	DATE 9/18/2002	JOB NO. J0216	1
	SITE MAP WEEKS SEAFOOD DIESEL TRUCK SPILL MEDIAN OF I-4, MILE MARKER #109 DEBARY, VOLUSIA COUNTY, FLORIDA			

Site 40: Weeks Seafood Delivery Spill Site – Site Map by Valerie R. Francisco P.G., P.A.



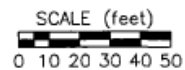
WELL ID	S.I. (feet)	WTE (feet)
TMW-2	2-12	27.30
TMW-3	2-12	27.11
TMW-4	2-12	28.03

S.I. = SCREEN INTERVAL (BLS)
 BLS = BELOW LAND SURFACE
 WTE = WATER TABLE ELEVATION

SYMBOL LEGEND

- APPROXIMATE LOCATION OF TEMPORARY MONITOR WELL
- 28.0 — GROUNDWATER ELEVATION CONTOUR IN FEET*
- DIRECTION OF GROUNDWATER FLOW

* GROUNDWATER ELEVATIONS ARE RELATIVE TO AN ONSITE BENCHMARK, ASSIGNED AN ARBITRARY ELEVATION OF 30.00'.



BECHTOL ENGINEERING AND TESTING, Inc. CONSULTING GEOTECHNICAL, ENVIRONMENTAL, AND MATERIALS TESTING ENGINEERS	GROUNDWATER CONTOURS - OCTOBER 14, 2005		
	BROWNING'S CONVENIENCE STORE		
DELTONA, FLORIDA			
FIELD: RR JK	CHECKED: AS	DATE: 10-31-05	PROJ. NO.: 05625
DRAWN: RR	APPROVED: TB	SCALE: 1" = 50'	FIGURE 6

Site 73: Deltona Citgo, formerly Chevron Saxon Boulevard and Expert Car Care – Groundwater Contours by Bechtol Engineering and Testing Inc.