

1.5 Purpose of the Contamination Screening Evaluation Report

The purpose of this CSER is to identify the presence of contaminated environmental media (soil, groundwater, surface water, and sediment) within existing or proposed right-of-way. Potential contamination sites may have a significant negative impact on the cost and schedule of a roadway improvement project. Therefore, the early identification of potential contamination sites, which could impact this project, will provide valuable input for the alternatives evaluation, design, right-of-way acquisition, permitting, and construction of this project.

PLEASE NOTE:

As discussed on page 9 under 1.4.3 Recommended Preferred Alternative, the concept in the Lake County East portion of the study area was revised in late 2009 to incorporate a non-tolled Service Road parallel to, and within the previously identified right-of-way for, the Wekiva Parkway mainline. The revised concept is shown in Exhibit 1-6 on page 14. Under the "Exhibits" tab which follows in this report, some of the alignment graphics for the Lake County East portion of the study area depict the previous concept without the Service Road. However, the provided data and information remain applicable to and useable for the revised concept in Lake County East.

2.0 DESCRIPTION OF VIABLE AND PREFERRED ALTERNATIVES

2.1 Viable Alternatives

During the course of this project, GEC has investigated multiple alternatives within the main corridor of the proposed Wekiva Parkway/SR 46 Realignment PD&E Study. The Wekiva Parkway begins in Orange County at the planned SR 429/SR 414 interchange at US 441 in Apopka, travels north and then east along the current SR 46 alignment through Lake County, and ends in Seminole County at I-4 near Sanford. The SR 46 Reconstruction and Realignment (formerly SR 46 Bypass) would begin at US 441 and SR 46 near Mount Dora and connect to the Parkway at a systems interchange in northwest Orange County. For the purposes of the alternatives evaluation, the project corridor was divided into four main Sections: Orange County, Wekiva Parkway/SR 46 Systems Interchange, Lake County West, Lake County East, Neighborhood Lakes, and Seminole County.

The following alternatives were presented at the public information workshop late July/early August, 2006 as the viable alternatives that would be carried through for further evaluation as part of the PD&E Study process.

Orange County

- ◆ Kelly Park Road Interchange Alignment
- ◆ Ponkan Road Interchange Alignment
- ◆ Orange County Alternative 1
- ◆ Orange County Alternative 2

Wekiva Parkway/ SR 46 Systems Interchange

- ◆ Wekiva Parkway/ SR 46 Systems Interchange Alternative 1
- ◆ Wekiva Parkway/ SR 46 Systems Interchange Alternative 2
- ◆ Wekiva Parkway/ SR 46 Systems Interchange Alternative 3
- ◆ Wekiva Parkway/ SR 46 Systems Interchange Alternative 4
- ◆ Wekiva Parkway/ SR 46 Systems Interchange Alternative 5
- ◆ Wekiva Parkway/ SR 46 Systems Interchange Alternative 6

Lake County West

- ◆ Lake County West Alternative 1
- ◆ Lake County West Alternative 2
- ◆ SR 46 North Widening
- ◆ SR 46 South Widening
- ◆ US 441/SR 46 Interchange Alternative 1
- ◆ US 441/SR 46 Interchange Alternative 2
- ◆ US 441/SR 46 Interchange Alternative 3

Neighborhood Lakes

- ◆ Neighborhood Lakes Alternative 1
- ◆ Neighborhood Lakes Alternative 2
- ◆ Neighborhood Lakes Alternative 3

Lake County East

- ◆ Local Access South Alignment Alternative 1
- ◆ Local Access South Alignment Alternative 2
- ◆ Local Access South Alignment Alternative 3
- ◆ Local Access North Alignment Alternative 4
- ◆ Local Access South Alignment Alternative 5

Seminole County

- ◆ Seminole County SR 46 with Frontage Roads, North Widening
- ◆ Seminole County SR 46 with Frontage Roads, South Widening
- ◆ SR 46 and I-4 Interchange
- ◆ SR 417 and I-4 Interchange

2.2 Preferred Alternative

The Preferred Alternative is comprised of segments of various viable alternatives as described in Section 2.1 of this CSER. This CSER (original dated April 2008 and updated June 2010) has been prepared for the Preferred Alternative only, and the viable alternatives that do not comprise the Preferred Alternative are not further discussed in this document. Please refer to the draft CSER, dated February 2007, for details associated with the contamination screening evaluations related to the other viable alternatives.

3.0 DEFINITIONS

The following definitions apply to terms used in this report.

Hazardous Material - Any material exhibiting ignitable, corrosive, reactive, or toxic properties. The USEPA has identified several hundred chemical compounds that possess one or more of these properties. Another definition that could be considered is any regulated material or substance whose presence, release or discharge into the environment would require reporting to a regulatory agency and possibly remediation. Any material that is spilled or leaked and has contaminated soil, groundwater surface water, and/or sediment can be considered a hazardous substance. Hazardous materials or compounds are identified as part of US EPA's list of hazardous and toxic wastes (CFR 40, part 261). The State of Florida has adopted US EPA's definition of hazardous substances as well as the USEPA list of hazardous substances.

Petroleum Products - Liquid crude oil derivatives that are derived by distillation, cracking, hydro forming and/or other petroleum refinery processes falling under the description of either "Gasoline Analytical Group," "Kerosene Analytical Group" or "Used Oil" as defined in Florida Administrative Code (FAC) 62-770.200(24), (29) and (64), respectively. These materials include, but are not limited to: leaded and unleaded gasoline, gasohol, aviation and jet fuels, diesel fuel, kerosene, new or used motor oil, hydraulic fluid and gear oil.

Hazardous Material or Petroleum Contamination Site - A potential hazardous material or petroleum contamination site is a parcel of land upon which hazardous materials or petroleum products are produced, stored accumulated, used or disposed of. These sites typically include existing or former gasoline stations, dry cleaners, auto repair facilities and other businesses where hazardous substances or petroleum products are present. The presence of hazardous substances or petroleum products does not mean that contamination

is present, but merely indicates that the potential for contamination exists if the materials are not handled or disposed of properly.

Contamination - The presence of any regulated material or chemical contained within the soil, groundwater, surface water or sediment on or adjacent to the roadway or proposed right-of-way, that may require assessment, remediation, or special handling, or that has a potential for liability.

Source Removal (SR) - The removal of free petroleum product or excessively contaminated soil.

Site Assessment (SA) - Investigation of a defined area of soil, sediment, groundwater or surface water contamination.

Site Assessment Report (SAR) - Summarizes all tasks that were implemented pursuant to the Contamination Assessment.

Remedial Action Plan (RAP) - A plan that details a means by which contamination may be cleaned up.

Active Remediation (AR) - Implementation of an approved RAP.

Site Rehabilitation Complete Report (SRCR) - A report that describes that cleanup goals have been met.

Site Rehabilitation Completion Order (SRCO) - An order issued by the lead regulatory agency that approves the SRCR. No further assessment or remediation activities need to be conducted at the site once a SRCO has been issued unless a new release takes place and is discovered.

Natural Attenuation Monitoring (NAM) - A means of conducting site rehabilitation in which natural degradation of media contaminants are monitored for extended periods of time provided that human health, public safety, and the environment are protected.

Engineering Control (EC) - A modification to a site to reduce or eliminate the potential for migration of, and exposure to, contaminants of concern. Examples of EC's included slurry walls, sheet pile walls, and engineered liners to prevent exposure.

Institutional Controls (IC) - A restriction on use of, or access to, a site to eliminate or minimize exposure to contaminants of concern. Examples of IC's include deed restrictions, use restrictions, or restrictive zoning.

No Further Action with Conditions - No further assessment or remediation is required at a site provided that certain conditions are met as approved by the lead regulatory agency. Conditional No Further Actions can be granted to sites that employ IC's and/or EC's as part of the site rehabilitation strategy.

No Further Action without Conditions - No further assessment or remediation is required at a site. No contaminants are present at the site above default or approved alternative clean-up standards.

Underground Storage Tank (UST) - A storage tank that has been installed below the ground surface, which may or may not contain secondary containment or leak detection systems.

Aboveground Storage Tank (AST) - A storage tank that is situated on the ground surface and may or may not be installed on a concrete pad with secondary spill containment.

4.0 CURRENT LAND USE

The study area consists of multiple roadways in Orange, Seminole, and Lake Counties. Orange County is primarily residential and agricultural. Seminole County is mostly commercial in the vicinity of I-4 and SR 46, with residences scattered throughout the corridor. Lake County is mostly commercial or undeveloped land along SR 46, with residences scattered throughout the corridor.

5.0 HYDROGEOLOGIC FEATURES

5.1 Geology/Hydrology

Central Florida geologic conditions can generally be described in terms of three basic sedimentary layers. The near-surface layer is primarily comprised of sands containing varying amounts of silt and clay. These sands are underlain by a layer of clay, clayey sand, phosphate and limestone, which is locally referred to as the Hawthorn Group. The third layer underlies the Hawthorn Group and is comprised of limestone. The thickness of these three strata varies throughout Central Florida. In general, the surficial sands typically extend to depths of 40 to 70 feet, while the Hawthorn Group ranges from nearly absent in some locations to thicknesses greater than 100 feet.

The groundwater hydrogeology of Central Florida can also be described in terms of the nature and relationship of the three basic geologic strata. The near-surface sand stratum is fairly permeable and comprises the water table (unconfined) aquifer. The limestone formation, known as the Floridan aquifer, is highly permeable due to the presence of large interconnected channels and cavities throughout the rock. The Floridan aquifer is the primary source of drinking water in Central Florida. These two permeable strata are separated by the relatively low permeability clays of the Hawthorn Group. The amount of groundwater flow between the two aquifer systems is dependent on the thickness and consistency of the Hawthorn clay confining beds which, as previously stated, varies widely throughout Central Florida.

5.2 USGS Quadrangle Map

The study area has been transposed onto excerpts from United States Geological Survey (USGS) quadrangle maps of this area, as shown on **Exhibits 4-1 through 4-5**. Based on the quadrangle map, the vicinity of the project alignment is characterized by gently sloping topography, with several small streams. The ground elevations in the study area appear to range from approximately +10 feet National Geodetic Vertical Datum (NGVD) near the Wekiva River to approximately +155 feet NGVD in Apopka, near US 441.

It is difficult to estimate groundwater flow direction in the vicinity of the project study limits based on these maps alone. The installation of piezometers would be necessary to obtain groundwater elevations and to determine the direction of groundwater flow.

While reviewing the USGS quadrangle maps, several claypits were noted in Orange County, west of Plymouth Sorrento Road and north of SR 441. Another claypit was noted in Lake County, southeast of SR 441 and south of SR 46.

Abandoned railroad lines were also observed in multiple locations in Orange, Lake, and Seminole Counties along the project corridor. Section 8.6 provides a summary of the locations of railroad lines that intersect the project alignment.

5.3 Orange, Lake, and Seminole Counties Soil Survey Review

The United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) is a generally reliable and comprehensive published source of information regarding near-surface soil and groundwater conditions. The USDA NRCS Soil Surveys of Orange, Lake, and Seminole Counties were reviewed for information regarding near-surface soil conditions within the project area. The roadway alignment and stormwater pond sites have been transposed on USDA NRCS Soil Survey maps of the area and are shown on **Exhibits 4-6 through 4-10**.

The USDA NRCS soil units that are most frequently identified throughout the project study area in Orange County are Candler fine sands, Tavares-Millhopper fine sands, and St. Lucie fine sand. In Lake County, the most frequently identified soil units are dark surface Astatula sand, Tavares sand, and Myakka sand. In Seminole County, the most frequently identified soil units are Adamsville-Sparr fine sands, Astatula-Apopka fine sands, Basinger, Samsula, and Hontoon soils, and Tavares-Millhopper fine sands.

The Orange County soils are primarily classified as upland sandy soils, ranging from nearly level to sloping, and moderately well to excessively drained. The soils in Lake County are primarily classified as nearly level, poorly drained sandy soils. The Seminole County soils are primarily classified as upland sandy soils or organic muck/peat soils, nearly level, and

poorly to excessively drained. The majority of these soil units are typically suitable to support roadway construction.

A borrow pit was noted on the USDA NRCS map east of SR 441 and south of SR 46 within the project study area.

According to the USDA NRCS Soil Survey for Orange, Lake, and Seminole Counties, the depth to the seasonal high groundwater level for the majority of the soil units along the alignment ranges from approximately 40 inches below existing ground surface to 80 inches below existing ground surface.

Information contained in the USDA NRCS Soil Survey is very general and may be outdated. It may not therefore be reflective of actual soil and groundwater conditions along the alignment, particularly if recent development in the vicinity of the alignment has modified soil conditions or surface/subsurface drainage.

6.0 HISTORICAL REVIEW

6.1 Historical Aerial Photograph Review

Historical aerial photographs of the study area were reviewed to evaluate past land use. Areas identified as having potential for hazardous materials or petroleum contamination were included in our review of the Public Record and site inspection.

Aerial photographs of the study area were reviewed at the Orange County Public Works Department, the Seminole County Public Works Department, Engineering Division and the Lake County Department of Facilities. Aerial photographs for the following years were available for Lake County: 1972, 1979, 1984, 1987, and 1990. Aerial photographs for the following years were available for Orange County: 1939, 1947, 1958, 1963, 1967, 1971, 1975, 1981, 1987, 1994, 2000, and 2003. Aerial photographs for the following years were available for Seminole County: 1940, 1948, 1957, 1962, 1968, 1974, 1980, 1983, 1989, 1993, 1999, and 2002. The following provides a summary of the historical aerial photograph review.

6.1.1 Lake County

- ◆ The 1972 aerial photographs show the study area as predominately rural and undeveloped with several orange groves located throughout the vicinity. SR 46, CR 46A, CR 433, CR 437, Florida Central Railroad, and Orange Blossom Trail (US 441) are visible. A facility is visible along the southern edge of SR 46, west of Wekiva River Road. Row crops are visible in the terrain west of this facility. Sparse residential structures are visible throughout the study area.

- ◆ The 1979 aerial photographs show two large areas of earthwork located south of the Florida Central Railroad tracks and to the east of Orange Blossom Trail. Some greenhouses are visible west of CR 437.
- ◆ The 1984 aerial photographs show more agricultural development (nurseries) throughout the study area. Increased residential development is visible, particularly in the Neighborhood Lakes area. Several agricultural or possible industrial structures are visible along SR 46 between US 441 and CR 437.
- ◆ The 1987 aerial photographs show a structure with multiple semi-trucks parked in its parking lot to the east of US 441 in Section 34, Township 19 South, Range 27 East, along the southern edge of SR 46.
- ◆ The 1990 aerial photographs show an increase in apparent commercial and industrial structures along SR 46 and east of US 441. Another structure with multiple semi-trucks is visible to the west of the previously mentioned structure with semi-trucks visible.

6.1.2 Orange County

- ◆ The 1939 aerial photographs show the study area as predominately rural and undeveloped. CR 435, CR 437, Kelly Park Road, Ponkan Road, Lester Road and Orange Blossom Trail are visible. A portion of CR 251 is visible to the east of the study area.
- ◆ The 1947 aerial photographs show buildings along Orange Blossom Trail directly south of Lake Standish and east of the study area.
- ◆ The 1958 aerial photographs show CR 251 running east-west through the study area and around Lake Chaudoin. Also, a large facility is visible on the southern side of Orange Blossom Trail near the study area.
- ◆ The 1963 aerial photographs show scattered orange groves throughout the northern portions of the study area. It should be noted that the aerial photographs of the study area for Section 4, Township 20 South, Range 28 East were not available for review.
- ◆ The 1967 aerial photographs show apparent greenhouses located south of the border of Orange and Lake Counties. More orange groves are visible throughout the study area.
- ◆ The 1971 aerial photographs show what appear to be greenhouses/nurseries throughout the CR 437 corridor near the study area. A large area of earthwork, which appears to be a landfill, is visible west of CR 437 near the northeast corner of

Section 25, Township 20 South, Range 27 East. The general area is rural with scattered residential structures.

- ◆ The 1975 aerial photographs show two large areas of earthwork, which also appear to be landfills, located directly south of the previously described area of earthwork. Directly west of these areas is a very large area of earthwork encompassing most of Section 25, Township 20 South, Range 27 East. Small amounts of residential development are visible north of Orange Blossom Trail.
- ◆ The 1981 aerial photographs show a circular track located west of CR 437 and southeast of Lake Chaudoin and what appears to be further residential development throughout the study area. A golf course with a residential neighborhood to the south is located where the previously described "very large area of earthwork" was located. Continual development of agricultural and residential and possible commercial structures is visible along CR 437. Notably, a large possible industrial or agricultural structure is visible to the south of the golf course and subsequent neighborhood in the study area.
- ◆ The 1987 aerial photographs show no obvious changes.
- ◆ The 1994 aerial photographs show a large area of cleared land towards the western edge of Section 4, Township 20 South, Range 28 East. The previously described large areas of earthwork and potential landfills appear to mostly be covered with vegetation.
- ◆ The 2000 aerial photographs show a large area of earthwork northwest of the previously described golf course and west of the study area.
- ◆ The 2003 aerial photographs show two large agricultural or industrial facilities located directly north of the study area and west of CR 435. Additional large agricultural buildings are noted throughout the study area.

6.1.3 Seminole County

- ◆ The 1940 aerial photographs show the study area as predominately rural and undeveloped. SR 46, CR 46A, CR 431, Lake Markham Road, and Oregon Road are visible.
- ◆ The 1948 aerial photographs show orange groves throughout portions of the study area and scattered residential structures.
- ◆ The 1957 aerial photographs show more orange groves along the SR 46 corridor. Wekiva Park Drive is visible. More residential structures have been constructed.

- ◆ The 1962 aerial photographs show I-4 along with a borrow pit located between I-4 and Lake Stern.
- ◆ The 1968 aerial photographs show no obvious changes.
- ◆ The 1974 aerial photographs show the SR 46 corridor to be under construction for road improvements. A portion of the SR 46 right-of-way has forked from the old southern portion of SR 46 and runs parallel to the north. The old section of SR 46 has become Wayside Drive. Wayside Drive reconnects back with the new portion of SR 46 further east. A few possible commercial structures are located along SR 46 near I-4. One is on the northwest corner of the interchange, and some structures are located on the east side of Old Oregon Road on the southeast corner of the SR 46/I-4 interchange. More commercial structures are located on the east side of I-4 along SR 46.
- ◆ The 1980 aerial photographs show increased residential development along the SR 46 corridor and subsequent study area. The SR 46 realignment and road improvements appear complete. More commercial or industrial development is visible along SR 46 and Old Oregon Road. The structure located at the northwest corner of the SR 46/I-4 interchange appears to be a possible gas station.
- ◆ The 1983 aerial photographs show more residential development throughout the study area. Two new structures are visible near the previously mentioned potential gas station. One is located adjacent to the west of the potential gas station and one is located to the south, directly across SR 46.
- ◆ The 1989 aerial photographs show the existence of Yankee Lake Road with a large facility under construction at the northern end of Yankee Lake Road. Four large warehouse-like structures are visible along the northern edge of SR 46, north of Sylvan Lake. A large school is now visible where a much smaller possible school had previously been located at the northeast corner of CR 431 and Wilson Road
- ◆ The 1993 aerial photographs show the completion of the construction of the previously mention large facility on Yankee Lake Road. This facility appears to be a wastewater treatment facility.
- ◆ The 1999 aerial photographs show the continual development of residential neighborhoods throughout the study area, especially around Sylvan Lake. A large commercial complex is visible on the southwest corner of the SR 46/I-4 interchange. Wayside Drive has been extended across SR 46. Extensive commercial development is visible on the east side of I-4 including the Seminole Town Center shopping mall.
- ◆ The 2002 aerial photographs show the existence of a new road located west of I-4 starting from SR 46 and going south across Wayside Drive and around Lake Stern.

Large car sales facilities are visible along the newer northern portion of Wayside Drive located northwest of the SR 46/I-4 interchange. The western-most portions of SR 417 are under construction coming from the east and ending at I-4 on the eastern side. An on/off ramp for the SR 417/I-4 interchange is under construction on the west side of I-4 located to the east of Lake Stern.

6.1.4 Historical Aerial Review Summary

Two potential landfills in Lake County and three potential landfills in Orange County were identified during the historical aerial review. These include the Grantham Pit C&D Facility, Mt. Dora Disposal and Fill (formerly RIP and Coddling Class II Landfill), the Orange County Excavation Pit, Fields Robinson/Acme Recycling, and the Plymouth Landfill. Please refer to Section 10.0 for a discussion on each facility.

Multiple greenhouses and areas of row crops were observed within the study area in Lake, Orange, and Seminole Counties. Possible gas stations were observed near the northwest corner of SR 46 and I-4. Multiple gas stations were identified in the area. Refer to Section 10.0 and 11.0 for details regarding GEC's opinions pertaining to potential project implications associated with these facilities.

6.2 City Directories

City directories are a listing of businesses and residences in a given area listed either by address, phone number, or name similar to a standard telephone book. For studies of this type, the listing by address for previous years is generally utilized to identify past land uses within the study area. However, city directories do not contain any information regarding tanks or hazardous materials. City directories were reviewed for Seminole and Orange Counties. City directories were not available for Lake County, because the majority of the project corridor through Lake County has been primarily undeveloped.

6.2.1 Orange County

City directories for Orange County are available at the Orlando Public Library. The city directories available for the project corridor were 1969, 1982, 1985, 1992, 1997, and 2003. The following provides a summary of city directory review.

- ◆ From at least 1969 through 2003, multiple botanical nurseries have been located within or near the project corridor, most notably along Plymouth Sorrento Road (CR 437).
- ◆ Multiple animal and equestrian-type businesses have been located near the project corridor, including Greenbrier Kennels & Stables, which has been listed with no address in 1982, and at 3703 Kelley Park Drive (currently Kelly Park Road) since at least 1985.

- ◆ None of the listings in 1969 or 1982 had addresses listed for the facilities. For these two years they were only located by street. In 1969, along West Ponkan Road, two sites of interest were listed, Florida Ponkan Corp. and Ponkan Poultry Farm. In 1982, Florida Ponkan Corp. was listed again along with K&K Welding and Fabrication, and Anvil Iron Works.
- ◆ In 1992, five facilities of interest were listed along Plymouth Sorrento Road and one facility of interest was listed along Hermit Smith Road. Listed along Plymouth Sorrento Road were: USDA Plymouth Containment Facility at street number 2590, Allen's Construction at 3960, Wayside General Store at 4409, Gary's Welding & Fabrication at 4413, and Odom's All Style Carpets at 4629. The facility listed at Hermit Smith Road was Jim's Lawn & Irrigation at 3576 Hermit Smith Road.
- ◆ Gary's Welding & Fabrication and Allen's Construction were both listed in the 1997 City Directory. However, Gary's Welding & Fabrication changed in address to 4415 Plymouth Sorrento Road.
- ◆ Odom's All Style Carpets was listed in the city directory up to 2003.
- ◆ In 1997, multiple new facilities appeared along Plymouth Sorrento Road. These included: Charles Hyndman Construction at street number 2608, B&J Machinery at 2655, Zeta Laboratories at 2700, Jeff Warren Construction at 3316, and Jay's Mar Mower Service at 4338. Two aquatic care businesses were listed in the 1997 city directory: Chuck's Pool Service at 4525 West Ponkan Road, and Lakeside Aquatic Weed Control at 6425 Mount Plymouth Road. Also, along Mount Plymouth Road, near the project corridor, Steve Kimmer Concrete was listed at street number 6604.
- ◆ Hardees Heating & Air Conditioning was listed in both the 1997 and 2003 directories at 3659 West Ponkan Road.
- ◆ In 2003, three new facilities of interest were listed. Wormley Roofing was listed at 4501 Plymouth Sorrento Road, and Budget Hardware Flooring and Liner Patch were listed at 5454 and 6431 Mount Plymouth Road, respectively.

6.2.2 Seminole County

City directories for Seminole County are available at the Museum of Seminole County History. The city directories available for the project corridor were for the years 1999 and 2003. The following provides a summary of city directory review.

- ◆ Several botanical nurseries were listed near the project corridor in both 1999 and 2003.

- ◆ In 1999, three facilities of interest were listed along West SR 46 in Seminole County. These include Hall's Chevron at 4700, Pest n Pets at 5701, and All Enterprises (single family housing construction) at 8100. Hall's Chevron was also listed in the 2003 city directory.
- ◆ Four other facilities of interest were listed in the 1999 City Directory. These included Auto Nation USA Corporation at 4911 Wayside Drive, Waste Water of Seminole County at 501 Yankee Lake Road, Molecular Coating Specialists of Florida at 356 Wekiva Park Drive, and Bio Kleen at 372 Wekiva Park Drive. It should be noted that although the latter two facilities are not adjacent to the project corridor, they are located upstream along the Wekiva River.
- ◆ Auto Nation USA Corporation was also listed in the 2003 city directory with the same address.
- ◆ In 2003, four new food marts that could have gasoline fueling components were listed along West SR 46 and one along Orange Boulevard near the project corridor. Located along West SR 46 were Amoco Food Shop at street number 4800, Handy Way Food Stores at 5690, Mobile on the Run at 5691, and Speedway-Starvin Marvin at 8400. Handy Way Food Stores, at street number 1481, was listed for Orange Boulevard. Additionally, Cleaners 46 was listed at 5220 West SR 46, and Twelve Oaks Campgrounds was listed at 6300 West SR 46.

6.2.3 City Directories Review Summary

The city directories identified multiple nurseries near or within the project corridor in Orange and Seminole Counties. Multiple food marts/gas stations were identified in Seminole County along SR 46 including: Chevron (4700 SR 46), BP/Amoco (4800 SR 46), Handy Way Food Mart (5690 SR 46), Exxon/Mobil (5689/5691 SR 46), and the Twelve Oaks Campground (6300 SR 46). A detailed account of these facilities is discussed in Section 10.0.

7.0 SITE RECONNAISSANCE

On multiple occasions in March 2005, June through August 2006, December 2006, January 2007, and February 2008, representatives of GEC visited the study area. The purpose of these visits was to document current conditions within the project study area and to evaluate whether current land uses could potentially result in hazardous materials or petroleum product contamination of environmental media in the study area. Pictures of the contamination sites and ponds are located in **Appendix A**. Observations made at specific potential contamination sites and at other areas located throughout the project study corridor are described in applicable portions of Section 10.0.

8.0 PUBLIC RECORD REVIEW

Our evaluation of potential contamination risk sites within the project study limits involved a review of practically reviewable published information obtained from the United States Environmental Protection Agency (USEPA), the Florida Department of Environmental Protection (FDEP), and local regulatory agencies regarding listed or potential Superfund sites, documented landfills, hazardous waste generators, handlers, hazardous substance users and treaters, locations where underground fuel storage tanks exist, or where documented soil or groundwater contamination exists. As a part of our record review, GEC subcontracted a regulatory database review from the FirstSearch Technology Corporation (FSTC) to supplement our search. The FSTC report is included in **Appendix B**.

8.1 Florida Department of Environmental Protection (FDEP)

The FDEP has compiled several database lists that are useful in identifying potential sources of environmental media contamination within the study area. The FDEP database lists used for this study are listed below.

- ◆ Registered Underground Storage Tanks (UST)
- ◆ Leaking Underground Storage Tanks (LUST)
- ◆ State Sites (CERCLIS and NPL Equivalents)
- ◆ Solid Waste Landfills (SWL)
- ◆ State/Tribal Sites (SWL, LUST, UST/AST, Tribal Brownfields)
- ◆ State Other (OT)
- ◆ State Spills 90
- ◆ State Spills 80
- ◆ State Permits (PE)
- ◆ Brownfield

Information regarding the search distances used for each above-listed database and the date the databases were last updated are included within the FSTC report provided in **Appendix B**. Descriptions of the above-listed Florida databases and information sources are also provided in the FSTC Report.

8.2 United States Environmental Protection Agency (USEPA)

The USEPA has also compiled several lists used for identifying potential sources of hazardous materials contamination. The databases used for this study are listed below.

- ◆ Federal National Priority List (NPL)
- ◆ Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS)

- ◆ Comprehensive Environmental Response Compensation and Liability Information System Archived Sites (CERCLIS - NFRAP)
- ◆ Resource Conservation and Recovery Act Treatment, Storage, Disposal (RCRA TSD)
- ◆ Resource Conservation and Recovery Act Corrective Action Sites (RCRA COR ACT)
- ◆ Resource Conservation and Recovery Act Generator (RCRA GEN)
- ◆ Resource Conservation and Recovery Act No Longer Regulated (RCRA NLR)
- ◆ Emergency Response Notification System (ERNS)
- ◆ Toxic Release Inventory System (TRIS)
- ◆ National Pollution Discharge Elimination System (NPDES)
- ◆ Facility Index System (FINDS)
- ◆ Hazardous Materials Incident Response System (HMIRS)
- ◆ National Compliance Database (NCDB)
- ◆ Nuclear Permits
- ◆ Receptors
- ◆ Releases (Air/Water)
- ◆ PCB Activity Database System (PADS)
- ◆ Federal Other

Information regarding the search distances used for each above-listed database and the date the databases were last updated are included within the FSTC report provided in **Appendix B**. Descriptions of the above-listed federal databases and information sources are also provided in the FSTC Report.

8.3 FDEP Oculus Document Management System

The FDEP uses the Oculus Document Management System to provide public record information for sites that have documented petroleum or other hazardous materials releases to the environment. Information contained in this data management system includes but is not limited to, the status of currently installed and abandoned storage tanks, tank inspection reports, tank closure reports, environmental assessment reports, and remedial action reports.

GEC obtained regulatory documents for multiple facilities located within the project study limits from the Oculus Document Management System regarding previously documented chemical releases, contamination assessments, and in some cases, remediation. Site-specific information obtained from the Oculus Document Management System is summarized for applicable Contamination Risk Potential Sites in Section 10.0.

8.4 EDB Delineated Areas

The Florida Legislature had the FDEP implement the Delineated Areas Program in 1988 under Chapter 62-524, FAC. The purpose of the program was to protect public health and groundwater resources by regulating potable water well construction and testing standards for areas of known groundwater contamination. During the period 1962 to 1980, the Florida

Department of Agriculture and Consumer Services (FDACS) conducted widespread applications of ethylene dibromide (EDB), an agricultural pesticide, to control nematodes in citrus groves. In 1983, the FDEP began testing groundwater in potable wells throughout Central Florida due to the discovery of EDB in wells in other states. A map of these delineated areas of EDB groundwater contamination in the Lake County area was completed in 1994. The potable wells, agricultural or residential, with confirmed impacts were drawn on the map with a 1,000-foot buffer zone in an attempt to project future migration of contaminants. However, this does not mean that there is not EDB contamination outside of that 1,000-foot zone.

Mr. Charles Coultas with the FDEP was contacted on April 26, 2006 by a GEC representative in regard to the current status of impacted areas in Lake County. Mr. Coultas stated that drinking water wells were found to be impacted and that the state had funded a program to abandon impacted drinking water wells, install granular activated carbon filtration to wells, or connect the affected areas to the public drinking water supply. A reassessment of groundwater in this area is being planned to evaluate the current status of the groundwater impact.

After reviewing these delineated area maps, GEC found that the Wekiva Parkway intersects multiple EDB-delineation areas. In Lake County, one EDB-delineation area was identified from just south of Oak Lane extending south into Orange County. This area extends to the west of Plymouth-Sorrento Road and north of Bridle Path. The EDB plume reportedly extends across the roadway from Bridle Path Road north into Lake County. In Seminole County, an EDB-delineation area was identified south of SR 46 along US 431 extending past the proposed Wekiva Parkway Corridor. GEC's opinions with regard to project implications associated with these delineated areas are provided in Section 11.0.

8.5 Agricultural Land Use

A portion of the study area in Lake, Orange, and Seminole Counties consist of former and existing citrus groves. Although citrus cultivation in itself does not confirm the presence of hazardous materials or petroleum product contamination of the soil or groundwater, many of the activities associated with citrus cultivation can result in hazardous materials or petroleum product contamination of the soil and/or groundwater. These activities include vehicle and equipment maintenance and fueling, pesticide, herbicide, and fertilizer formulation and application, and freeze prevention via grove heaters.

The maintenance of grove vehicles including tractors, harvesting equipment, pesticide sprayers and motors used in the groves for pumping water or powering grove blowers was commonly performed near a central grove barn or storage area. In times prior to the current level of environmental awareness, the maintenance of equipment motors commonly involved draining oil, transmission fluid, or fuel directly onto the ground. This practice may

have also taken place in remote locations where motors were used to drive irrigation pumps or operate grove blowers.

Pesticides and herbicides were commonly mixed in the vicinity of a barn or shed or in the vicinity of an elevated water tank used to fill the spraying equipment. Inadvertent spillage of chemicals in these areas commonly occurred during the filling of spray equipment. Chemicals may have also been dumped in these areas during the draining of excess chemicals and cleaning of the equipment.

In the winter when temperatures occasionally dropped below freezing overnight, many methods have been utilized in attempts to protect citrus trees and maturing fruit. These methods commonly included the use of smudge pot-type grove heaters. These grove heaters consisted of a reservoir which was filled with relatively inexpensive low-grade fuel oil and a stack for the dissipation of heat from the burning fuel oil. These heaters were placed throughout the groves in an attempt to raise the temperature and prevent freezing. Smudge pot-type grove heaters are a source of potential soil or groundwater contamination in groves due to spillage during filling and/or leakage due to deterioration. Contamination is most likely to be encountered in areas where the smudge pots were stored.

Grove blowers were also occasionally used to circulate air in groves to prevent temperature from dropping in stagnant areas and to blow cold air out of low areas and, in theory, draw warmer air down from higher areas. These grove blowers consist of a large propeller blade driven by an internal combustion engine. These blowers can be a source of soil or groundwater contamination due to the maintenance of the engine used to drive the blower and the presence of a fuel storage tank, usually underground, at the base of the blower.

In addition to the sources of soil and groundwater contamination, some older groves may contain underground irrigation lines made of Transite pipe. Transite pipe contains asbestos fibers and is not generally a source of soil or groundwater contamination. However, if buried Transite pipe is encountered during clearing for construction, precautions must be taken and proper procedures must be used to avoid exposing workers and nearby residents to airborne asbestos fibers.

Mr. Brian Dougherty of the Program and Technical Support Section for the FDEP's Bureau of Waste Cleanup has stated that lands primarily used for agricultural purposes typically have residual concentrations of agrichemicals that exceed cleanup target levels as contained in Chapter 62-777, FAC. Mr. Dougherty added that the presence of such chemicals is not the result of a release or spill, so the FDEP may not be able to enforce a cleanup under its regulations. FDEP does not restrict the re-use of agricultural lands, but some municipalities may have local requirements that do. Mr. Dougherty also pointed out that areas of contamination associated with the mixing or loading of agrichemicals and/or vehicle maintenance would be treated as point sources and cleanup would be required by FDEP. GEC's opinion with regards to project implications associated with agricultural areas and provided in Section 10.0.

8.6 Railroad Beds

Environmental concerns may be associated with the Preferred Alternative intersecting railroad corridors. The following provides a summary of railway intersection of the property.

- ◆ The former Seaboard Coast Railroad, currently the CSX Railroad, crosses US 441 South at the intersection of US 441 and the SR 46 bypass, adjacent to Pond WB441-3-W-1, but is currently not in use (See **Exhibit 9-1**).
- ◆ The CSX Railroad crosses the proposed SR 46 bypass between Pond BP2-W-1 and Pond BP3-W-1 (See **Exhibit 9-2**).
- ◆ The CSX Railroad crosses SR 429 immediately south of the Preferred Alternative (See **Exhibit 9-10**).
- ◆ The abandoned CSX Railroad crosses the Preferred Alternative northwest of Pond RS9-E-3 (See **Exhibit 9-17**).
- ◆ The abandoned CSX Railroad crosses the Preferred Alternative at several locations near Pond RP1-S-1 (See **Exhibit 9-25**).

Railroad ties were typically coated with inorganic and/or petroleum-based preservatives and would likely require special disposal provisions. Herbicides were used surrounding the ties for weed control and contained hazardous chemicals, possibly including arsenic. Such materials may have resulted in soil and/or groundwater impacts along the railway corridors. Soils that contain chemical concentrations above cleanup criteria must be handled and disposed of properly, and contaminated groundwater encountered or affected by construction must be treated or disposed of in accordance with applicable regulations. Our opinions and recommendations with regard to project implications associated with railway corridors are provided in Section 10.0.

9.0 PROJECT IMPACTS AND CONTAMINATION RISK POTENTIAL RATING

After gathering and reviewing the above-mentioned information and conducting various site visits, a Contamination Potential Risk Rating (CRPR) was assigned to sites that were identified to have a potential to result in environmental media (soil, groundwater, surface water, or sediment) contamination. Our CRPRs are based on current conditions and may not reflect conditions that may exist in the future.

The contamination potential risk rating system we have used was developed by FDOT (Chapter 22 PD&E Manual) and can be generally defined as the following four categories:

1. No Risk Site - After a review of all available information, there is nothing to indicate contamination would be a problem. It is possible that contaminants could have been handled on the property; however, all information (FDEP and USEPA reports, monitoring wells, water and soils samples, etc.) indicate problems should not be expected. Examples of site operations that received this rating are:

- A. A gas station that has been closed and has a Closure Assessment or Contamination Assessment documenting that there is no soil or groundwater contamination.
 - B. A wholesale or resale outlet that handles hazardous materials in sealed containers which are never opened while at this facility, such as spray cans of paint at a "drug store."
2. Low Risk Site - The former or current site operation has a hazardous waste generator identification (ID) number, deals with hazardous materials, or stores petroleum products; however, based on available information, there is no evidence there would be any contamination encountered. This is the lowest possible rating a gasoline station operating within current regulations could receive. This rating would also be applied to a retail hardware store that blends paint.
3. Medium Risk Site - After a review of all available information, indications are found (reports, Notice of Violations, consent orders, etc.) that identify known environmental media contamination but that the problem does not need remediation, is being remediated (i.e., air stripping of the groundwater, etc.) or that continued monitoring is required. The complete details of the nature and extent of contamination and remediation requirements are important to determine what impact the site could have on design or construction of the roadway improvements. We would also include in this category any site that may not have identified contamination, but there is a significant probability that contamination impacts could exist.
4. High Risk Site - After a review of all available information, there is a definite potential for the site to have contamination problems. Further assessment would be required to determine the actual presence and/or levels of contamination, the presence of abandoned underground fuel storage tanks, and the need for remedial action. Properties that were previously used as gasoline stations but have not been evaluated or assessed would receive this rating.

10.0 POTENTIAL HAZARDOUS MATERIALS AND PETROLEUM IMPACT SITES

10.1 Contamination Potential Risk Sites

As a result of both the site reconnaissance and public record review portions of this study, various sites within the study area were assigned a **No, Low, Medium, or High** CRPR. Available public record information obtained for the sites is included in **Appendix C**. The locations of these sites are shown on **Exhibits 9-1 through 9-27**, which depicts the Preferred Alternative alignment. **Table 9-1** presents a summary of the ranked sites. The contamination risk potential sites and corresponding CRPRs are presented below.

Per the request of CH2M Hill, GEC prepared a preliminary table for all of the viable alternatives in early 2005 including potential contamination sites identified in the FSTC Report and in a windshield survey. The Preliminary Potential Contamination Sites Table, dated April 6, 2005, is included in **Appendix D**.

Many parcels throughout the project corridor are either former or existing nurseries. Although this agricultural use does not confirm the presence of hazardous materials or petroleum product contamination in the on-site environmental media, many of the activities associated with agricultural land use can result in contamination. Some of these activities include, but are not limited to: equipment and vehicle maintenance, fueling activities, and pesticide, herbicide, and fertilizer formulation and application. However, contamination impacts are typically localized in nature and confined within the limits of the property. As such, the nurseries that intersect or are directly adjacent to the Preferred Alternative have been assigned a CRPR of Medium, and nurseries that are present outside of the Preferred Alternative have been assigned a CRPR of Low.

Many of the nurseries observed within the study area utilized propane at their facilities. Propane tanks do not necessarily indicate contamination issues at the associated properties. Propane volatilizes upon release to the environment and would not contribute to soil and/or groundwater contamination. Pictures of some of these tanks are included in the Appendix to show surrounding site conditions.

Site No. 1 Mt. Dora Water Treatment Plant, SR 46 and SR 441, Mt. Dora (Site Recon). Water treatment plants usually use chemicals such as chlorine, but are inspected on a regular basis. There is no record of contamination in the FSTC Report or the public record. As such, this facility has been assigned a CRPR of **Low** for the Preferred Alternative.

Site No. 2 Grantham Pit C&D Facility, SR 46, Mt. Dora (Aerial Review). This facility is located east of the intersection of SR 46 and Highway 441 and was not listed within the FSTC Report. This facility is classified as a solid waste facility by the FDEP. There is a potential for groundwater contamination to be present on the property from the landfilling activities. However, these activities appear to be over 900 feet from the Preferred Alternative. Therefore, this facility has been assigned a Contamination Risk Potential Rating of **Low** for the Preferred Alternative.

Site No. 3 Superior Asphalt Company of Central Florida, 444 South Rossiter Street, Mt. Dora (FINDS, RCRA, UST). According to public record documents dated 1996, several areas of used oil spills were noted on the site. The FDEP suggested that Superior Asphalt Company of Central Florida adopt better housekeeping procedures. No other information was available. During site reconnaissance, a large AST was observed with obvious spills on the supports of the AST and on the ground surface surrounding the AST. Miscellaneous debris, construction materials, and asphalt were observed in

piles on the southern portion of the site. Photographs 1 through 3 in Appendix A show the general site conditions. Based on our visual observations, poor housekeeping, and the location within a proposed pond site, this site has been assigned a CRPR of **Medium** for the Preferred Alternative.

Site No. 4 Florida Natural Stone, Inc., 3102 SR 46, Mt. Dora (Site Recon). This facility is not listed in the FSTC report, and no information was found in public records. During site reconnaissance, construction equipment was observed on the site behind the fence line. No staining was visible at that time. Photograph 4 in Appendix A shows the general site conditions. This site has been assigned a CRPR of **Low** for the Preferred Alternative.

Site No. 5 Mt. Dora Disposal and Fill (formerly RIP and Coddling Landfill), 3300 SR 46, Mt. Dora (SWL). This facility was previously classified as a Class III Landfill by FDEP but has not formally been permitted. Although part of this facility is located within the study area, it appears that the landfilling activities are outside the project study limits based on historical aerial photograph review. However, there is a potential for groundwater contamination to be present on the property in the project study area that could have resulted from the landfilling activities. Therefore, this facility has been assigned a Contamination Risk Potential Rating of **Medium** for the Preferred Alternative.

Site No. 6 Helena Chemical Company, 21244 SR 46, Mt. Dora (FINDS, UST, FEDOTHER). No documented contamination was encountered in the FSTC Report or the public record. During site reconnaissance, a water tank and a mineral oil tank were observed on the site. Multiple stains were noted on the concrete loading dock in front of the building. Photographs 5 and 6 in Appendix A show the general site conditions. Due to the industrial nature of this facility and because staining was observed, this site has been assigned a CRPR of **Medium** for the Preferred Alternative.

Site No. 7 Komatsu Equipment Company, SR 46, Mt. Dora (Site Recon). This site is not listed in the FSTC report, and no information was found in public record. An interview with the owner of the property indicated that there was an AST on the site, although it was not observed during the site reconnaissance. No repair activities are conducted within the site boundaries. This site has been assigned a CRPR of **Low** for the Preferred Alternative.

Site No. 8 Peeler Truck Service, 21628 SR 46, Mt. Dora (FINDS, RCRAGN). An inspection of this facility in July 2005 found this facility to be in compliance. One AST was noted on the property during site reconnaissance, but no evidence of stressed vegetation or soil staining was observed. The building

was not accessible during our site reconnaissance. Photograph 7 in Appendix A shows the general site conditions. Because there is a potential for underground lifts, sumps, or floor drains inside this facility it has been assigned a CRPR of **Medium** for the Preferred Alternative.

Site No. 9 Protech Auto Repair, 30940 Suneagle Drive, Mt. Dora (Site Recon).

This is an active auto repair facility on the south side of SR 46. It is not listed in the FSTC report, and no information was found in public record. No evidence of stressed vegetation, buried debris, or soil staining was observed during the site reconnaissance. No evidence of underground lifts, sumps, or floor drains was observed at this facility. This site has been assigned a CRPR of **Low** for the Preferred Alternative.

Site No. 10 Smitty's Auto Repair, 30940 Suneagle Drive, Mt. Dora (Site Recon).

This site is an active repair facility located adjacent to Protech Auto Repair. It is not listed in the FSTC report and no information was found in public record. Four 55-gallon drums of used oil and aboveground lifts were noted on the site during the site reconnaissance. No evidence of floor drains, underground lifts, staining or cracks was observed on the concrete flooring. This site has been assigned a CRPR of **Low** for the Preferred Alternative.

Site No. 11 Theophilus, 31747 Round Lake Road, Mt. Dora (Site Recon).

This site is located west of Cornado Somerset Drive along the southern portion of SR 46. It is not listed in the FSTC report. The public record, however, indicates that this facility had two ASTs removed from the site. A Storage Tank Facility Closure Site Inspection Report, dated October 1, 2004, indicated that this facility was in compliance and no violations were noted. Seminole County Department of Public Safety indicated that a discharge was reported on March 11, 1991 and a priority clean-up score of 40 was given to this facility. The facility was rescored to 54 in May 2007. In September 2007 Point Four Engineering submitted a letter to York Claims Service regarding the site. The letter states that although the FDEP files do not show that the discharge was remediated, the Lake County Tank Section has records that state the clean up has been completed. The letter included a request that the FDEP provide the site with NFA status. In October 2007 FDEP responded to the request by stating that although a 25-gallon spill from 2003 had been adequately remediated, there was no evidence that the 1991 discharge was cleaned up. The FDEP has requested that a Limited Contamination Assessment Report be submitted by March 2007. Photograph 8 in Appendix A shows the general site conditions. The ASTs in the photograph are empty, not in use, and are located on a concrete pad. Since this site has documented contamination with no subsequent assessment, it has been assigned a CRPR of **High** for the Preferred Alternative.

- Site No. 12 Arirang, 6614 Plymouth Sorrento Road, Apopka (Site Recon).** This site is located west of Plymouth Sorrento Road in the northern portion of Orange County. It is not listed in the FSTC report, and no information was found in the public record. No evidence of stressed vegetation, buried debris, or soil staining was observed during the site reconnaissance. Photographs 9 through 10 in Appendix A show the general site conditions. This site has been assigned a CRPR of **Low** for the Preferred Alternative.
- Site No. 13 Premium Plants, 6707 Plymouth Sorrento Road, Apopka (Site Recon).** This site is east of Plymouth Sorrento Road in the northern portion of Orange County. It is not listed in the FSTC report, and no information was found in the public record. No evidence of stressed vegetation, buried debris, or soil staining was observed during the site reconnaissance. This site has been assigned a CRPR of **Low** for the Preferred Alternative.
- Site No. 14 Ponderosa Nursery, 6441-6447 Plymouth Sorrento Road, Apopka (Site Recon).** This site is east of Plymouth Sorrento Road in the northern portion of Orange County. It is not listed in the FSTC report, and no information was found in the public record. No evidence of stressed vegetation, buried debris, or soil staining was observed during the site reconnaissance. Photograph 11 and 12 in Appendix A show the general site conditions. This site has been assigned a CRPR of **Low** for Preferred Alternative.
- Site No. 15 King's Plants, 6431 Plymouth Sorrento Road, Apopka (Site Recon).** This site is east of Plymouth Sorrento Road in the northern portion of Orange County. It is not listed in the FSTC report, and no information was found in the public record. A strong fuel odor and area of newly placed topsoil was observed adjacent to the dumpster while performing the site reconnaissance. Photograph 13 in Appendix A shows the general site conditions. This site has been assigned a CRPR of **Low** for the Preferred Alternative.
- Site No. 16 World Wide Orchids, Inc., 6500 Plymouth Sorrento Road, Apopka (Site Recon).** This site is west of Plymouth Sorrento Road in the northern portion of Orange County. It is not listed in the FSTC report, and no information was found in the public record. A large AST was observed in the central portion of the site. No evidence of stressed vegetation, buried debris, or soil staining was observed during the site reconnaissance. Photographs 14 and 15 in Appendix A show the general site conditions. This site has been assigned a CRPR of **Low** for the Preferred Alternative.
- Site No. 17 Peckett's, Inc., 6448 Plymouth Sorrento Road, Apopka (Site Recon).** This site is west of Plymouth Sorrento Road in the northern portion of Orange County. It is not listed in the FSTC report, and no information was found in

the public record. No evidence of stressed vegetation, buried debris, or soil staining was observed during the site reconnaissance; however, the Preferred Alternative intersects this facility. Photographs 16 through 18 in Appendix A show the general site conditions. Because the Preferred Alternative intersects the southwest corner of the property, it has been assigned a CRPR of **Medium**.

Site No. 18 Possible Borrow Pit, Apopka (Site Recon). There is a potential for buried debris in this area. Since the Preferred Alternative intersects the pit, this site has been assigned a CRPR of **Medium**.

Site No. 19 Dover's Foliage, 3317 Ondich Road, Apopka (Site Recon). This facility is not listed in the FSTC report, and no information was found in the public record. No evidence of stressed vegetation, buried debris, or soil staining was observed during the site reconnaissance; however, the Preferred Alternative intersects this facility. Photographs 19 and 20 in Appendix A show the general site conditions. Because the Preferred Alternative intersects this property, it has been assigned a CRPR of **Medium**.

Site No. 20 Tropical Cutting's Plant Ranch, 6014 Ondich Road, Apopka (Site Recon). This site is located west of Plymouth Sorrento Road in the northern portion of Orange County. It is not listed in the FSTC report and no information was found in the public record. No evidence of stressed vegetation, buried debris, or soil staining was observed during the site reconnaissance; however, the Preferred Alternative appears to intersect the northwest portion of this property. Photograph 21 in Appendix A shows the general site condition. Because the Preferred Alternative intersects this property, it has been assigned a CRPR of **Medium**.

Site No. 21 Plant Marketing, 3119 West Kelly Park Road, Apopka (Site Recon). This site is not listed in the FSTC report, and no information was found in the public record. No evidence of stressed vegetation, buried debris, or soil staining was observed during the site reconnaissance. Photograph 22 in Appendix A shows the general site conditions. This site has been assigned a CRPR of **Low** for the Preferred Alternative.

Site No. 22 CMC Nursery, 3239 West Kelly Park Road, Apopka (Site Recon). This site is not listed in the FSTC report, and no information was found in the public record. No evidence of stressed vegetation, buried debris, or soil staining was observed during the site reconnaissance. However, the Preferred Alternative intersects the southern portion of this facility. Photograph 23 in Appendix A shows the general site conditions. This site has been assigned a CRPR of **Medium** for the Preferred Alternative.

- Site No. 23 Chapman's Orchards and Exotic Plants, 3321 West Kelly Park Road, Apopka (Site Recon).** This site is not listed in the FSTC report, and no information was found in the public record. No evidence of stressed vegetation, buried debris, or soil staining was observed during the site reconnaissance. However, the Preferred Alternative intersects the southern and western portion of this facility. Photograph 24 in Appendix A shows the general site conditions. This site has been assigned a CRPR of **Medium** for the Preferred Alternative.
- Site No. 24 JDC Plants, Inc./Green Mansion Foliage, 3366 West Kelly Park Road, Apopka (Site Recon).** This site is not listed in the FSTC report, and no information was found in the public record. No evidence of stressed vegetation, buried debris, or soil staining was observed during the site reconnaissance. However, the Preferred Alternative appears to be located directly adjacent to the western property boundary of this facility. Photograph 25 in Appendix A shows the general site conditions. This site has been assigned a CRPR of **Medium** for the Preferred Alternative.
- Site No. 25 William L. Calhoun, 3509 West Kelly Park Road, Apopka (Site Recon).** This site is not listed in the FSTC report, and no information was found in the public record. No evidence of stressed vegetation, buried debris, or soil staining was observed during the site reconnaissance. Photograph 26 and 27 in Appendix A show the general site conditions. This site has been assigned a CRPR of **Low** for the Preferred Alternative.
- Site No. 26 Apopka Nursery, 4068 Plymouth Sorrento Road, Apopka (Site Recon).** This site is not listed in the FSTC report, and no information was found in the public record. This site has been assigned a CRPR of **Low** for the Preferred Alternative.
- Site No. 27 H&D Foliage, 4046 Plymouth Sorrento Road, Apopka (Site Recon).** This site is not listed in the FSTC report, and no information was found in the public record. Photographs 28 in Appendix A shows the general site conditions. No evidence of stressed vegetation, buried debris, or soil staining was observed during the site reconnaissance. This site has been assigned a CRPR of **Low** for the Preferred Alternative.
- Site No. 28 Plant Connection, Inc., 3960 Plymouth Sorrento Road, Apopka (Site Recon).** This site is not listed in the FSTC report, and no information was found in the public record. No evidence of stressed vegetation, buried debris, or soil staining was observed during the site reconnaissance. Photographs 29 through 31 in Appendix A show the general site conditions. This site has been assigned a CRPR of **Low** for the Preferred Alternative.

- Site No. 29 Dream House Nursery, 3746 Plymouth Sorrento Road, Apopka (Site Recon).** This site is not listed in the FSTC report, and no information was found in the public record. No evidence of stressed vegetation, buried debris, or soil staining was observed during the site reconnaissance. Photograph 32 in Appendix A shows the general site conditions. This site has been assigned a CRPR of **Low** for the Preferred Alternative.
- Site No. 30 Select Foliage and Flowers, Inc., 3600 Plymouth Sorrento Road, Apopka (Site Recon).** This site is not listed in the FSTC report, and no information was found in the public record. A large AST was observed in the southern portion of the property. No evidence of stressed vegetation, buried debris, or soil staining was observed during the site reconnaissance. However, the Preferred Alternative is located adjacent to the southern corner of this facility. Photographs 33 through 35 in Appendix A show the general site conditions. The site has been assigned a CRPR of **Medium** for the Preferred Alternative.
- Site No. 31 S&L Nursery, 3229 West Ponkan Road, Apopka (Site Recon).** This site is not listed in the FSTC report, and no information was found in the public record. No evidence of stressed vegetation, buried debris, or soil staining was observed during the site reconnaissance. Photographs 36 through 38 in Appendix A show the general site conditions. Because the Preferred Alternative intersects this facility, this site has been assigned a CRPR of **Medium**.
- Site No. 32 Orange County Excavation Pit, Apopka (SWL).** An Orange County Excavation Pit is located directly north of the Fields Robinson/Acme Recycling Facility. Mr. Arnaldo Mercado, Orange County Environmental Protection Division (OCEPD) Compliance and Waste Management Manager, could not confirm or deny the presence of buried debris in this area. Historical aerial photographs show that land disturbance and potential landfilling activities were conducted at this facility. Nodarse and Associates, Inc. (N & A) performed two auger borings to approximately 20 feet below existing grade on this site just east of the proposed roadway alternatives as part of their geotechnical investigation for the Wekiva Parkway/SR 46 Realignment project. No debris was encountered during drilling. The N & A report is included in Appendix E. Photograph 39 in Appendix A shows the general site conditions. Because of the potential for buried debris, this facility has been assigned a CRPR of **High** for the Preferred Alternative.

Site No. 33 Fields Robinson/ACME Recycling, Apopka (SWL). Information contained in the public files stated that the Fields Robinson/Acme Recycling Facility was under enforcement procedures for accepting materials other than organic yard clearing debris and operating a landfill in unincorporated Orange County without a permit. Mr. Mercado and Mr. Robert van den Akker, OCEPD Code Enforcement Engineer, indicated that this facility is still under regulatory enforcement by Orange County Code Enforcement. On July 25, 2002, OCEPD, Fire Department, Code Enforcement and Zoning Department personnel performed a site inspection. The Acme Recycling owner was given until October 4, 2002 to address various regulatory compliance issues. This did not occur, and a Code Enforcement hearing was scheduled for October 2002. Subsequently, incoming loads of debris were dumped along the entry road, so entrance to the facility was limited.

According to Mr. Mercado and Mr. van den Akker, the Fields Robinson/Acme Recycling parcel has since been divided into two separate parcels and sold to Mr. Roger Brickner and Advantage 99-D. Mr. Brickner owns the western portion of the Former Acme Recycling facility, where most of the fill activities took place. After the 2002 hearing, a \$1,000.00 per day lien was placed on these properties. Mr. Mercado indicated that the landfilling activities took place in the southwestern corner of the property. Photograph 40 in Appendix A shows the general site conditions. This facility has been assigned a CRPR of **High** for the Preferred Alternative.

Site No. 34 Plymouth Landfill, Apopka (SWL). Information contained in the publicly available files stated that the Plymouth Landfill was issued a Class III landfill permit in approximately 1989. The FDEP file and Mr. Mercado reported that this landfill was never opened or operated. Mr. Mercado said this facility was an Orange County clay pit that was issued a permit by the State of Florida, but to his knowledge, was never an active landfill. However, after reviewing aerial photographs, it appears landfilling activities may have been conducted at this location. N & A performed an auger boring to approximately 20 feet below existing grade in the northern portion of this site just east of the proposed roadway alternatives as part of their geotechnical investigation for the Wekiva Parkway. A total of eleven samples were collected and screened with an organic vapor analyzer. No elevated readings were encountered, and no buried debris was encountered. Groundwater samples were not collected or analyzed during this initial study. Photograph 41 in Appendix A shows the general site conditions. Because of the potential for buried debris to be located at other locations at this site and due to the potential for groundwater impacts, this facility has been assigned a CRPR of **High** for the Preferred Alternative.

- Site No. 35 BLB Foliage and Cactus, 3092 Yothers Road, Apopka (Site Recon).** This site is not listed in the FSTC report, and no information was found in the public record. No evidence of stressed vegetation, buried debris, or soil staining was observed during the site reconnaissance. Photographs 42 and 43 in Appendix A show the general site conditions. Because the Preferred Alternative intersects this site, it has been assigned a CRPR of **Medium**.
- Site No. 36 Blooming Fields/ US Lawns, 1808 Plymouth Sorrento Road, Apopka (Site Recon).** This site is not listed in the FSTC report, and no information was found in the public record. No evidence of stressed vegetation, buried debris, or soil staining was observed during the site reconnaissance. Since the Preferred Alternative appears to be directly adjacent to this facility, it has been assigned a CRPR of **Medium** for the Preferred Alternative.
- Site No. 37 Korus Orchids, 1650 Plymouth Sorrento Road, Apopka (Site Recon).** This site is not listed in the FSTC report, and no information was found in the public record. Photographs 44 through 45 in Appendix A show the general site condition. Since the Preferred Alternative appears to be directly adjacent to this facility, it has been assigned a CRPR of **Medium**.
- Site No. 38 Father and Son Nursery, 1568 Plymouth Sorrento Road, Apopka (Site Recon).** This site is not listed in the FSTC report, and no information was found in the public record. No evidence of stressed vegetation, buried debris, or soil staining was observed during the site reconnaissance. Since the Preferred Alternative appears to be directly adjacent to this facility, it has been assigned a CRPR of **Medium** for the Preferred Alternative.
- Site No. 39 Stephen H. Griffith, 1362 Plymouth Sorrento Road, Apopka (Site Recon).** This site is not listed in the FSTC report, and no information was found in the public record. No evidence of stressed vegetation, buried debris, or soil staining was observed during the site reconnaissance. Photograph 46 in Appendix A shows the general site conditions. Since the Preferred Alternative appears to be directly adjacent to this facility, it has been assigned a CRPR of **Medium** for the Preferred Alternative.
- Site No. 40 Earl Wilson's, 3162 and 3076 Plymouth Sorrento Road, Apopka (Site Recon).** This site is not listed in the FSTC report, and no information was found in the public record. No evidence of stressed vegetation, buried debris, or soil staining was observed during the site reconnaissance. Photographs 47

and 48 in Appendix A show the general site conditions. Since the Preferred Alternative appears to be directly adjacent to this facility, it has been assigned a CRPR of.

Site No. 41 HW Miller, 952 Plymouth Sorrento Road, Apopka (Site Recon). This site is not listed in the FSTC report, and no information was found in the public record. No evidence of stressed vegetation, buried debris, or soil staining was observed during the site reconnaissance. Photographs 49 and 50 in Appendix A show the general site conditions. This site has been assigned a CRPR of **Low** for the Preferred Alternative.

Site No. 42 Paul Koptick, Plymouth Sorrento Road, Apopka (Site Recon). This site is not listed in the FSTC report, and no information was found in the public record. No evidence of stressed vegetation, buried debris, or soil staining was observed during the site reconnaissance. Photographs 51 and 52 in Appendix A show the general site conditions. Since the Preferred Alternative appears to be directly adjacent to this facility, it has been assigned a CRPR of **Medium**.

Site No. 43 Kim Vegetables, 2403 Boch Road, Apopka (Site Recon). This site not listed in the FSTC report, and no information was found in the public record. No evidence of stressed vegetation, buried debris, or soil staining was observed during the site reconnaissance. This site has been assigned a CRPR of **Low** for the Preferred Alternative.

Site No. 44 Top Nursery, 2402 Boch Road, Apopka (Site Recon). This site is not listed in the FSTC report, and no information was found in the public record. No evidence of stressed vegetation, buried debris, or soil staining was observed during the site reconnaissance. This site has been assigned a CRPR of **Medium** for the Preferred Alternative, since the Preferred Alternative appears to be located adjacent to the south.

Site No. 45 Unnamed Nursery, 2089 Haas Road, Apopka (Site Recon). This site is not listed in the FSTC report, and no information was found in the public record. No evidence of stressed vegetation, buried debris, or soil staining was observed during the site reconnaissance. This site has been assigned a CRPR of **Low** for the Preferred Alternative.

Site No. 46 Penang Nursery, Inc., 1909 Haas Road, Apopka (Site Recon). This site is not listed in the FSTC report, and no information was found in the public record. No evidence of stressed vegetation, buried debris, or soil staining

was observed during the site reconnaissance. Since the Preferred Alternative appears to be located adjacent to the north, this site has been assigned a CRPR of **Medium**.

Site No. 47 Tropical Outdoors of Central Florida, 6510 Mt. Plymouth Road, Apopka (Site Recon). This site is not listed in the FSTC report, and no information was found in the public record. No evidence of stressed vegetation, buried debris, or soil staining was observed during the site reconnaissance. This site is located outside the study area and has been assigned a CRPR of **No** for the Preferred Alternative.

Site No. 48 Black Bear Nursery, 29240 SR 46, Sorrento (Site Recon). This site is located between Proposed Pond RS9-E-2 and the Preferred Alternative. It is not listed in the FSTC report, and no information was found in the public record. An irrigation well and a building storing various chemicals and fertilizers was observed during site reconnaissance. This site has been assigned a CRPR of **Medium** for the Preferred Alternative.

Site No. 49 Garden Rebel Nursery/Sims Landscape, 29611 SR 46, Sorrento (Site Recon). This site is east of Old McDonald Road near the Seminole State Forest. It is not listed in the FSTC report, and no information was found in the public record. Because the Preferred Alternative intersects this facility, it has been assigned a CRPR of **Medium**.

Site No. 50 Paola Tree Farm, SR 46, Sanford (Site Recon). This site is not listed in the FSTC report, and no information was found in the public record. No evidence of stressed vegetation, buried debris, or soil staining was observed during the site reconnaissance. Because this site is located adjacent to Pond 4L2-S-1, Alt. 2, and the Preferred Alternative, it has been assigned a CRPR of **Medium**.

Site No. 51 Florida Fancy Nursery, 6850 SR 46, Sanford (Site Recon). This site is not listed in the FSTC report, and no information was found in the public record. An approximate 250-gallon diesel fuel tank was observed for on-site fueling of trucks. No evidence of spills, leaks, or stressed vegetation was observed. Photograph 53 in Appendix A shows the general site conditions. Because the Preferred Alternative intersects a portion of this facility, it has been assigned a CRPR of **Medium**.

- Site No 52 Vaughan's Nursery, 6700 SR 46, Sanford (FINDS, RCRANLR).** No information was found on this facility in the public record. During site reconnaissance, multiple tanks were observed including a 60-gallon fertilizer tank, a 60-gallon phosphoric acid tank, 300-gallon chlorine tank, 1,000-gallon liquid fertilizer tank, 550-gallon liquid fertilizer tank, two large water tanks, and a large propane tank. Multiple 55-gallon drums of Clorox were observed as well. Photograph 54 in Appendix A shows the general site conditions. Because the Preferred Alternative would intersect a portion of this facility, it has been assigned a CRPR of **Medium**.
- Site No. 53 Twelve Oaks RV Resort, 6300 SR 46, Sanford (Site Recon).** This site is not listed in the FSTC report, and no information was found in the public record. This site has been assigned a CRPR of **Low** for the Preferred Alternative.
- Site No. 54 Designing Woman Landscaping and Nursery, 6275 SR 46, Sanford (Site Recon).** This site is not listed in the FSTC report, and no information was found in the public record. Because the Preferred Alternative would intersect the subject property, this site has been assigned a CRPR of **Medium**.
- Site No. 55 Fair Field Farms Landscaping and Design, 5650 Orange Blvd, Sanford (Site Recon).** This site is not listed in the FSTC report, and no information was found in the public record. No storage tanks or chemical storage areas were observed. Because this site is located directly adjacent to the roadway expansion, it has been assigned a CRPR of **Medium**.
- Site No. 56 Citgo/Handy Way Food Store, 5690 SR 46, Sanford (UST).** This facility is an active gas station with no documented contamination. A minor violation was cited on November 1, 2006 for a tank monitor in alarm mode. Because no documented contamination was identified for the subject site, it has been assigned a CRPR of **Low** for the Preferred Alternative.
- Site No. 57 Exxon/ Mobil, 5689 SR 46, Sanford (UST).** No documented contamination was noted in the FSTC Report. A Tank Closure Assessment Report, submitted on August 7, 2006, did not indicate the presence of petroleum contaminants in the area of the tank closure activities. As such, this facility has been assigned a CRPR of **Low** for the Preferred Alternative.

- Site No. 58 7-Eleven Food Store #33347, 4900 SR 46, Sanford (UST).** No documented contamination was encountered in the FSTC report or the public record. Thus, this facility is assigned a CRPR of **Low** for the Preferred Alternative.
- Site No. 59 BP/Amoco, 4800 SR 46, Sanford (Site Recon).** According to a letter from the FDEP, dated July 27, 2006, active remediation is required in accordance with Chapter 62-770, FAC, due to constituent concentrations above state cleanup target levels. This site was not listed in the FSTC Report due to inversion of numbers in the address. Because there is documented contamination on-site, this facility has been assigned a CRPR of **High** for the Preferred Alternative.
- Site No. 60 Bill Heard Chevrolet, 127-135 North Oregon Street, Sanford (UST, RCRAGN, FINDS).** This site is located northwest of the intersection of I-4 and SR 46. The public record states that four ASTs are located on the site. One 6,000-gallon gasoline AST, one 1,000-gallon waste oil AST, one 1,000-gallon lube oil AST, and one 1,000-gallon miscellaneous petroleum-based product AST are currently in service. According to Universal Engineering Science's Supplemental Site Assessment Report, dated July, 2006, levels of groundwater on-site are above the FDEP's Groundwater Clean-up Target Levels. Since this site is located approximately 400 feet from Preferred Alternative, this site has been assigned a CRPR of **Low**.
- Site No. 61 Seminole County Fire Station #34, 4905 Wayside Drive, Sanford (Site Recon).** No information on this facility was available in the FSTC report or the public record. No evidence of stressed vegetation, staining, or storage tanks was noted during site reconnaissance. The firemen on duty at the time of site reconnaissance were unaware of any tanks located at this facility. As such, this facility has been assigned a CRPR of **Low** for the Preferred Alternative.
- Site No. 62 Courtesy Ford, 4911 Wayside Drive, Sanford (RCRAGN, FINDS, UST).** No documented contamination was noted in the FSTC report or the public record. As such, this facility has been assigned a CRPR of **Low** for the Preferred Alternative.
- Site No. 63 Spill, 80 Dunbar Avenue, Sanford (ERNS).** Approximately 80 gallons of transmission fluid was spilled at this location in Seminole County. Information included in the FSTC Report indicated that the spill did not

encounter any body of water and no actions were taken. This facility is located outside of the study area. As such, this facility has been assigned a CRPR of **No** for the Preferred Alternative.

Site No. 64 AB Graphics, 686 Hickman Circle, Sanford (File Review). This site is not listed in the FSTC report, and no information was found in the public record. Because this site is located outside of the study area, it has been assigned a CRPR of **No** for the Preferred Alternative.

Site No. 65 Omega Medical Imaging, Inc., formerly C&S X-Ray Systems, 671 Hickman Circle, Sanford, (RCRAGN, RCRANLR, FINDS). A review of the public record indicated that this facility was a conditionally exempt small quantity hazardous waste generator. A FDEP inspection was performed due to a citizen's complaint alleging improper disposal techniques. At the time of the inspection, no visual evidence of improper disposal was identified. This facility is located outside of the study area. As such, this facility has been assigned a CRPR of **No** for the Preferred Alternative.

Site No. 66 Initial Marine Corps, 650 Hickman Circle, Sanford (FINDS, RCRAGN). This site is located adjacent to I-4 in Seminole County and was not listed in FSTC report. A review of the public record indicates that the facility is a small quantity hazardous waste generator. No evidence of stressed vegetation, buried debris, or soil staining was observed during the site reconnaissance. This site has been assigned a CRPR of **Low** for the Preferred Alternative.

Site No. 67 Harley Davidson, 620 Hickman Circle, Sanford, (Site Recon). This newly built facility is located adjacent to I-4 in Seminole County and was not listed in the FSTC report. The facility sells and repairs Harley Davidson motorcycles. A review of public record did not indicate any documented violations. No evidence of stressed vegetation, buried debris, or soil staining was observed during the site reconnaissance. This site has been assigned a CRPR of **Low** for the Preferred Alternative.

Site No. 68 Sunoco, 4730 SR 46, Sanford (UST, LUST, SPILLS80). According to a letter from the Seminole County Emergency Management Division, dated May 25, 2006, a round of groundwater sampling from all wells was requested to verify contamination levels. Because this facility has documented contamination on the site, it has been assigned a CRPR of **High** for the Preferred Alternative.

- Site No. 69 Days Inn, 4650 SR 46, Sanford (UST, LUST, SPILLS).** A Supplemental Site Assessment was conducted in October 2005 citing groundwater contamination along SR 46. On August 3, 2006, a work order was authorized for a Limited Scope Remedial Action Plan, indicating that contamination impacts are still present at the subject site. As such, this facility has been assigned a CRPR of **Medium** for the Preferred Alternative.
- Site No. 70 Chevron, 4700 SR 46, Sanford (UST, LUST, SPILLS80).** According to a letter from the FDEP, dated November 21, 2006, a discharge reporting form was submitted on November 29, 2004 and October 12, 2005 for the subject site. A Site Assessment (SA) was required due to elevated analytical data for soil and groundwater samples that exhibited chemical concentrations above default regulatory criteria. Because a SA was not conducted for this site and documented contamination is present, this facility has been assigned a CRPR of **High** for the Preferred Alternative.
- Site No. 71 Former Cathy's Fruit Stand, I-4 and SR 46, Sanford (UST, SPILLS, LUST, FINDS).** A SAR, dated September 8, 2006, was submitted by Universal Engineering Sciences, Inc. to the Seminole County Emergency Management Division. The groundwater contamination was limited to a small area directly west of the Don Pablos Restaurant on SR 46. Because there is documented on-site contamination, this facility has been assigned a CRPR of **High** for the Preferred Alternative.
- Site No. 72 Mobil Lube Express/Car Wash, 101/125 South Oregon Street, Sanford (UST, LUST, SPILLS80, FINDS).** According to the public record, as of July 11, 2006, Handex Remediation and Construction was performing episodic 8-hour air sparge-soil vapor extraction remediation. Photograph 55 in Appendix A shows the general site conditions. Because there is documented on-site contamination, this facility has been assigned a CRPR of **High** for the Preferred Alternative.
- Site No. 73 David Maus Toyota, 1160 Rinehart Road, Sanford (Site Recon).** This is a fairly new facility (2006) and was not listed in the FSTC report. The public record indicated that three ASTs are located on the site. One 2,000-gallon waste oil AST and two 1,500-gallon lube oil ASTs are currently in service. No documented contamination or releases were found in the public record. As such, this site has been assigned a CRPR of **Low** for the Preferred Alternative.

Site No. 74 CarMax, 901 Towne Center Blvd, Sanford (UST). No documented contamination was reported in the FSTC Report or the public record. As such, this facility has been assigned a CRPR of **Low** for the Preferred Alternative.

Site No. 75 Courtesy Honda, 1000 Reinhart Road, Sanford (RCRA NLR). During site reconnaissance, multiple in-ground hydraulic lifts were observed on the site. A floor drain was observed in the center of the service department. Three oil ASTs and one coolant AST was observed within a secondary containment structure. No cracks were noted in the concrete flooring. No documented contamination were encountered in the FSTC Report or the public record. As such, this facility has been assigned a CRPR of **Low** for the Preferred Alternative.

Site No. 76 Auto Repair Facility/American Concrete Services, 5540 Wilson Road, Sanford (Site Recon). This site is not listed in the FSTC report and no information was found in the public record. During the initial site inspection (mid 2006), multiple 5-gallon buckets of hydraulic oil were observed on the site. The owner indicated that automobile repair was regularly performed at this location. The site was re-visited in early 2008. The facility indicated it was now doing business as American Concrete Services. Photograph 56 in Appendix A shows the general site conditions. Due to the unknown nature of the business, this site has been assigned a CRPR of **High** for the Preferred Alternative.

Site No. 77 Lake Mary Post Office, 800 Reinhart Road, Lake Mary (Site Recon). During the site reconnaissance, 5 service bays with above ground lifts, a car wash area, and multiple double-walled AST were noted. A Source Removal Report/Limited Site Assessment Report was produced for the subject site on September 12, 2006. This report details the August 22, 2005 diesel spill into the stormwater drain. Soil samples collected from the area surrounding the stormwater drain outfall resulted in levels of TRPH above cleanup target levels. No map was available within this report to detail the location of this spill. Photograph 57 in Appendix A show the general site conditions. This facility has been assigned a CRPR of **High** for the Preferred Alternative.

Site No. 78 Barn LLP Property, 6577 Mt. Plymouth Road, Apopka (Interviews). Orange County Risk Management provided a Phase I Environmental Site Assessment (ESA) Report for the Wekiva-Ocala Greenways Project, dated February 2, 2007. This report details the findings of the parcel in question. Aerostar Environmental Services, Inc. revealed the following recognized environmental conditions (RECs) in association with the Barn, LLP Property:

- ◆ Potential concerns associated with historical citrus crops on the property,
- ◆ Potential concerns associated with a historical pesticide storage area on the property,
- ◆ Potential concerns associated with a historical solid waste dumping area on the property, and
- ◆ Potential concerns associated with the historical presence of a golf course to the west of the property, including EDB impacts and an AST.

As discussed in Section 7.5, many of the activities associated with citrus cultivation may result in hazardous materials or petroleum product contamination of the soil and/or groundwater in the area. The historical pesticide storage area and the golf course are located outside of the study area. The historical solid waste dumping area is located within the study limits. Because of the potential for buried debris, this facility has been assigned a CRPR of **High** for the Preferred Alternative.

Site No. 79 Potential Borrow Pit, I-4 and SR 417, Sanford (Reviews). There is a potential for buried debris in this area. Since the Preferred Alternative intersects this area, the potential borrow pit has been assigned a CRPR of **Medium**.

Site No. 80 Detached Residential Garage, 2640 SR 46, Mt. Dora (Site Recon). It appeared that maintenance activities were conducted within the garage at one time. Multiple 55-gallon drums were observed on unpaved surfaces in and surrounding the garage. Small areas of staining were observed in multiple areas adjacent to the drums. Farm equipment was also stored on the property. Photographs 58 through 61 in Appendix A show the general site conditions. Since this facility is located within Pond WB1-W-2, this facility has been assigned a CRPR of **Medium**.

Site No. 81 Horne Property, 4966 Plymouth Sorrento Road, Apopka (Site Recon). A 55-gallon drum containing used oil with evidence of staining was observed in the central portion of Proposed Pond RS-KPa-0-1. Additionally, wood and other debris, a saw mill, a propane tank, and bottles of Lintox livestock spray and dip were found on the property. Photographs 62 through 64 in Appendix A show the general site conditions. This facility a CRPR of **Medium** for the Preferred Alternative.

Site No. 82 Project Orlando LLC Property, 2928 West Kelly Park Road, Apopka (Site Recon). A maintenance barn with 55-gallon drums of unknown products was observed on this property. The structure appeared to be a maintenance facility with staining on unpaved surfaces, waste tires, and other debris on the site. Photograph 65 in Appendix A shows the general site conditions. Since this facility is located within Pond RS-KPb-0-1, it has been assigned a CRPR of **Medium**.

Site No. 83 Former Automotive Repair Facility, 3037 Southfork Drive, Apopka (Site Recon). This former automobile maintenance facility was observed during site reconnaissance. Two underground hydraulic lifts were located adjacent to the structure. Photograph 66 in Appendix A shows the general site conditions. Since the Preferred Alternative will intersect a portion of the structure, this facility has been assigned a CRPR of **Medium**.

Site No. 84 Jones Property, 3075 Southfork Drive, Apopka (Site Recon). This property contains motor oil, hydraulic oil, and miscellaneous debris piles. Tractors, equipment, and vehicles are also staged on the property. Photographs 67 through 69 in Appendix A show the general site conditions. This facility has been assigned a CRPR of **Medium** for the Preferred Alternative.

Site No. 85 Former UCF Agricultural Facility, 28930 SR 46, Sorrento (Site Recon). This facility contained multiple abandoned greenhouses, a storage building, a feed silo, vehicles, and an abandoned house. Syringes and unknown containers of materials were located within one of the greenhouse. Photographs 70 and 71 in Appendix A show the general site conditions. This facility has been assigned a CRPR of **Medium** for the Preferred Alternative.

Site No. 86 Suspected Former Cattle Operations, 31515 Wekiva River Rd, Sorrento (Site Recon). This property is currently owned by Rock Springs Run State Reserve. At the time of our site reconnaissance, two large molasses ASTs were observed within Proposed Pond BW2-E-2. Miscellaneous debris piles were found within Proposed Pond WR1-E-2. Cattle feed troughs and multiple vaccine bottles and syringes were identified within the subject property. There is a potential for cattle dipping vats on the subject property. Photographs 72 through 74 in Appendix A show the general site conditions. As such, this facility has been assigned a CRPR of **Medium** for the Preferred Alternative.

Site No. 87 Former Horse Barn, Paseo Place, Sanford (Site Recon). A multiple stall horse barn was observed within Proposed Pond SJ1-S-1 containing four empty 55-gallon drums of unknown substances and 5-gallon buckets of hydraulic oil. Staining was observed on unpaved surfaces surrounding the drums within one stall. Photographs 75 and 76 in Appendix A show the general site conditions. As such, this facility has been assigned a CRPR of **Medium** for the Preferred Alternative.

Site No. 88 Cravey Property, 3464 Hideaway Road, Apopka (Site Recon). This property appears to be utilized for residential and agricultural uses. A large AST with visible staining was observed near a shed on the subject property. Photographs 77 and 78 in Appendix A show the general site conditions. This facility has been assigned a CRPR of **Medium** for the Preferred Alternative.

10.2 De Minimus Conditions

Miscellaneous debris was encountered at multiple locations throughout the project corridor. No staining was observed adjacent to these piles. Therefore, the potential for contamination in these locations is minimal.

Debris was observed at the following locations:

- ◆ Within Proposed Pond BP4b-W-1 in Orange County (**Exhibit 9-3**).
- ◆ Within Proposed Pond BP7-CP1 in Orange County (**Exhibit 9-3**).
- ◆ Within Proposed Pond BP4d-W-1 in Orange County (**Exhibit 9-4**).
- ◆ Within Proposed Pond FP1-CP1 in Orange County (**Exhibit 9-7**).
- ◆ Adjacent to Site No. 44 in Orange County (**Exhibit 9-11**).
- ◆ Within Proposed Pond NL3a-0-1 in Orange County (**Exhibit 9-12**).
- ◆ Within Proposed Pond YL2-S-1 ALT. 1 in Seminole County (**Exhibit 9-20**).
- ◆ Within Proposed Pond YL2-S-1 ALT. 2 in Seminole County (**Exhibit 9-20**).
- ◆ Within Proposed Pond YL4-S-1 in Seminole County (**Exhibit 9-21**).
- ◆ Within Proposed Pond YL5-S-1 ALT 1 in Seminole County (**Exhibit 9-21**).
- ◆ Adjacent to the Proposed Pond SJ2-S-1, near I-4/ 417 in Seminole County (**Exhibit 9-22**).
- ◆ Adjacent to Proposed Pond SJ2-S-1 in Seminole County (**Exhibit 9-22**).
- ◆ Adjacent to Unnamed Pond 3 in Seminole County (**Exhibit 9-22**).
- ◆ Within Unnamed Pond 4 in Seminole County (**Exhibit 9-22**).
- ◆ South of International Parkway in Sanford along the proposed SR 417/ I-4 Interchange (**Exhibit 9-25**).

Also note that the Florida Gas Transmission Company Gas Pipeline is located within the project corridor adjacent to SR 46 (**Exhibit 9-20**).

11.0 CONCLUSIONS AND RECOMMENDATIONS

There is a significant potential liability associated with acquisition of right-of-way that is contaminated. Additionally, contamination can have a significant impact on construction, particularly underground utility construction and dewatering, since contaminated groundwater would require treatment, disposal, and special permitting. Excessively contaminated soil would require special treatment and disposal and could not be used to backfill utility excavations. For this reason, it is prudent to perform additional studies prior to final design and property acquisition for this project.

GEC recommends that surveys for asbestos and other potentially hazardous building materials be conducted prior to acquisition of any existing structures. Additionally, all hazardous building materials should be characterized and disposed of in accordance with existing applicable local, state, and federal requirements. We also recommend that asbestos surveys be conducted for all bridge structures within the project corridor in accordance with current FDOT protocols.

11.1 Identified Sites

For all sites having a **Low** contamination risk potential rating, we recommend that this report be updated prior to right-of-way acquisition and construction. The update would include a re-review of the Public Record to determine if any significant changes in status have occurred at the **Low** risk sites since this report was prepared.

For the sites classified as **Medium** and **High** contamination risk, further review into the Public Record, particularly with regard to any Contamination Assessment or Remedial Action Plans that may be generated in the interim period, between the date of this report and the date of final design and right-of-way acquisition, should be performed. A preliminary soils screening evaluation involving auger borings and OVA screening of soils, analysis of soil samples for chemical concentrations, and installation and sampling of temporary groundwater monitoring wells should be performed to detect the presence of contaminants in the soil and groundwater. No right-of-way should be acquired for roadway widening and/or stormwater ponds, and construction activities should not be initiated without further study at sites assigned a **Medium** or **High** contamination risk potential rating. If the right-of-way requirements are refined, project plans are modified, or new alternatives or new pond sites added, this information should be used to further evaluate potential contamination impacts based on the project modifications.

Additional activities such as test pits and/or ground penetrating radar, as well as on-site vegetation clearing and site reconnaissance with current site owners and regulatory personnel, would provide more information on current site conditions at the potential landfilling areas within the project corridor. These sites include **Site No. 2** Grantham Pit C&D Facility, **Site No. 5** Mt. Dora Disposal and Fill (formerly RIP and Coddling Landfill), **Site No. 34** Orange County Excavation Pit, **Site No. 35** Fields Robinson/ACME Recycling, **Site No. 36** Plymouth Landfill, and **Site No. 78** Barn, LLP Property. Based on the information presented herein, additional investigations, including but not limited to soil and groundwater sampling for chemical analysis, would be required to assess the potential for contamination impacts that may have resulted from the former landfilling activities in these areas.

11.2 Agricultural Lands and Nurseries

11.2.1 Roadway

Many parcels throughout the project corridor are either former or existing agricultural lands or nurseries. Although this agricultural use does not confirm the presence of hazardous materials or petroleum product contamination in the on-site environmental media, many of the activities associated with agricultural land use can result in contamination. Some of these activities include, but are not limited to: equipment and vehicle maintenance, fueling activities, and pesticide, herbicide, and fertilizer formulation and application. However, contamination impacts are typically localized in nature and confined within the limits of the property.

A portion of the study area in Lake and Orange Counties consist of former and existing citrus groves, including **Site No. 78** Barn, LLP Property. No point source areas or remote spills were identified on this site. Site reconnaissance was performed during the winter months and no smudge pots were observed. It is unknown if a heater distribution system was used on the subject site. The use of such a system could lead to petroleum impacts throughout the grove. Since roadway construction intersects this property, special handling and disposal procedures may be required if contaminated media is encountered during future construction activities.

FDEP indicated that the department does not restrict the re-use of agricultural lands, but some municipalities may have local requirements that do. Orange County indicated that restrictions may be considered when public works or real estate departments of the county acquire parcels of land that were previously utilized for agricultural uses.

GEC recommends a Level II Contamination Assessment along the Preferred Alternative that intersects with agricultural lands or nurseries to identify if potential soil and/ or groundwater impacts are present. Special handling and disposal procedures may be required if contaminated media is encountered during future construction activities.

11.2.2 Preferred Pond Sites

The majority of the proposed ponds sites are located in former or existing agricultural use areas or nurseries. Although this agricultural use does not confirm the presence of contamination in the on-site environmental media, many of the activities associated with agricultural land use can result in contamination. Potential liability may exist if construction activities exacerbate contamination within these proposed pond sites. GEC recommends a Level II Contamination Assessment at all proposed pond locations within agricultural use areas or nurseries to identify if potential soil and/ or groundwater impacts are present.

11.3 EDB Contamination

Significant findings were identified in 1983 in reference to EDB contamination detected in potable wells along the Preferred Alternative. The risk to public health was addressed through a state funded program to abandon impacted drinking water wells, install granular activated carbon filtration to wells, or connect the affected areas to the public drinking water supply. The discovery of impacted groundwater was the result of a state mandated FDACS program and potential exposure in this area to groundwater contaminants has been regulated through a well permitting program (Chapter 62-524, FAC). Potential liability may exist if construction activities exacerbate the contamination. Analytical testing may is recommended in deep zones if deep foundations are proposed within the EDB delineated areas, and in shallow to intermediate zones if ponds are proposed within the EDB delineated areas. EDB delineated areas identified within the project study corridor are depicted on **Exhibit 9-28**.

11.4 Proposed Pond Locations

A majority of the pond sites are located on undeveloped land with no signs of contamination or debris other than that stated in Section 10. Thirteen areas of household debris were identified within the proposed pond locations. Although GEC has not identified a significant potential for contamination impacts in these areas, the items should be characterized and disposed of in accordance with applicable regulations.

11.5 Railway Corridors

Environmental concerns may be associated with the multiple railway corridors located within the study area. **Exhibits 9-1, 9-2, 9-10, 9-17, and 9-25**, identify the location of these railway corridors. According to the Lake County Property Appraiser, the former Seaboard Coast Railroad is owned by CSX Transportation, Inc. Railroad ties were typically coated with inorganic and/or petroleum-based preservatives and would likely require special disposal provisions. Herbicides used for weed control surrounding the ties contained hazardous chemicals, possibly including arsenic. Such materials may have resulted in soil and/or

groundwater impacts along the railway corridors. GEC recommends a Level II Contamination Assessment at these locations to identify if potential soils and/ or groundwater impacts are present.

12.0 LIMITATIONS

The findings, opinions, conclusions and recommendations presented herein are based in part on readily available and practically reviewable information contained in the public record. GEC does not warrant or guarantee the accuracy or completeness of this information. Some of this public record information, such as soil or groundwater quality test results, groundwater contamination plume maps, groundwater flow direction maps, locations of USTs or ASTs, etc. may be dated and not representative of conditions at the time of this report was prepared or in the future. Please refer to this report and supporting documentation in its entirety for a complete understanding regarding GECs evaluation methodology and the age and limitations of the data upon which GEC has relied in formulating our findings, opinions, conclusions and recommendations.

Specific limitations for this project include the following:

- ◆ A GEC representative was unable to enter every structure along the Preferred Alternative and within every proposed pond site.
- ◆ Heavy brush overgrowth was encountered along the Preferred Alternative and within every proposed pond site.
- ◆ Historical information sources were limited for Lake County. Historical aerial photographs were not available before 1972 and city directories were not available at the time of data collection.
- ◆ The data presented in this report was collected in March 2005, June through August 2006, December 2006, January 2007, and February 2008, and may not reflect current conditions.

This report does not contain discussions on wetlands, threatened/endangered species, flood plains, or drainage systems. Surveys for lead-based paint, asbestos-containing materials, or other potentially hazardous building materials were not conducted as part of this evaluation.

13.0 USE OF THIS REPORT

GEC has prepared this report for the exclusive use of our client, CH2M Hill, OOCEA, and the FDOT, and for specific application to our client's project. GEC will not be held responsible for any other party's interpretation or use of this report's data or recommendations without our written authorization.

GEC has strived to provide the services described in this report in a manner consistent with that level of care and skill ordinarily exercised by members of our profession currently practicing in Central Florida. No other representation is made or implied in this document.

The conclusions or recommendations of this report should be disregarded if the nature, design, or location of the facilities is changed. If such changes are contemplated, GEC should be retained to review the new plans to assess the applicability of this report in light of proposed changes.