TECHNICAL REPORT COVERSHEET

CONTAMINATION SCREENING EVALUATION REPORT

Florida Department of Transportation

District Five

SR 535 PD&E Study

Limits of Project: From US 192 to North of World Center Dr

Orange and Osceola Counties, Florida

Financial Management Number: 437174-2

ETDM Number: 14325

Date: August 2024

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by the Federal Highway Administration and FDOT.



Florida Department of TRANSPORTATION

SR 535 PD&E Study Contamination Screening Evaluation Report

From US 192 to North of World Center Drive (SR 536)

Orange and Osceola Counties, Florida

Contract CA770

FM Number: 437174-2

FDOT

District Five

Date of Publication

August 2024

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. §327 and a Memorandum of Understanding dated May 26, 2022, and executed by the Federal Highway Administration and FDOT.

TABLE OF CONTENTS

1.0	INTRODUCTION	1-1
1.1	PROJECT DESCRIPTION	1-1
1.2	Purpose & Need	1-2
	1.2.1 Transportation Demand	1-2
	1.2.2 Safety	1-3
1.3	PROJECT STATUS	1-3
1.4	COMMITMENTS	1-3
1.5	ALTERNATIVES ANALYSIS SUMMARY	1-3
1.6	DESCRIPTION OF PREFERRED ALTERNATIVE	1-4
	1.6.1 Intersection Improvements	1-5
	1.6.2 Drainage	1-6
	1.6.3 Right of way and Construction Cost	1-9
2.0	METHODOLOGY	2-1
2.1	GOVERNMENT DATABASE AND REGULATORY FILE REVIEWS	2-1
2.2	FIELD REVIEWS	2-2
2.3	RISK RATINGS	2-2
3.0	LAND USES	3-1
3.1	EXISTING LAND USES	3-1
3.2	HISTORIC LAND USES	3-7
4.0	HYDROLOGIC FEATURES	4-1
5.0	POTENTIAL PROJECT IMPACTS	5-1
5.1	POTENTIALLY CONTAMINATED SITES	5-1
5.2	Individual Site Summaries	5-6
6.0	CONCLUSIONS AND RECOMMENDATIONS	6-1
7.0	RFFFRENCES	7-1

LIST OF FIGURES

<u>Figure</u>	Page Number
Figure 1-1 - Project Location	1-2
Figure 1-2 - Preferred Alternative Typical Section	1-4
Figure 1-3 - Osceola Parkway over SR 535	1-5
Figure 1-4 - SR 417 over SR 535	1-5
Figure 1-5 - Preferred Alternative Ponds	1-8
Figure 3-1 - Land Use in Orange County Project Area	3-2
Figure 3-2 - Land Use in Osceola County Project Area	3-3
Figure 4-1 - Hydrologic Features in Orange County Project Area	4-2
Figure 4-2 - Hydrologic Features in Osceola County Project Area	4-3
Figure 5-1 - Contaminated Sites in Orange County Project Area	5-4
Figure 5-2 - Contaminated Sites in Osceola County Project Area	5-5
LIST OF TABLES	
<u>Table</u>	Page Number
Table 1-1 - Preferred Pond Alternatives	1-7
Table 1-2 - Preferred FPC Site	1-7
Table 1-3 - Cost Estimate	1-9
Table 5-1 - Risk Rating Summary	5-1
Table 5-2 - Site Information	5-2

Appendices

Appendix A: Medium and High Risk Site Records

Appendix B: Photographs of Medium and High Risk Sites

1.0 Introduction

In November 2017, the Florida Department of Transportation (FDOT) District Five (D-5) completed a Corridor Planning Study (CPS) to evaluate State Road 535 (SR 535) from US 192 in Osceola County to I-4 in Orange County. The purpose of the CPS was to identify specific problem areas along the corridor and evaluate multimodal alternatives that will be carried forward into future phases of project development in order to optimize the operations of the existing facility. Improvements identified as a result of the CPS included widening from four to six lanes, TSM&O and multimodal improvements, and intersection improvements (including innovative intersection designs).

FDOT D-5 is now conducting a Project Development and Environment (PD&E) Study to evaluate the recommendations from the CPS including the widening of SR 535 from four to six lanes from US 192 in Osceola County to just north of World Center Drive (SR 536) in Orange County, approximately 2.35 miles.

1.1 Project Description

FDOT D-5 is conducting a Project Development and Environment (PD&E) Study to evaluate the widening of SR 535 from four to six lanes from US 192 in Osceola County to just north of World Center Drive (SR 536) in Orange County, approximately 2.35 miles as shown in **Figure 1-1**. SR 535 is known as Vineland Road in Osceola County and Kissimmee-Vineland Road in Orange County.

Within the study limits, SR 535 is a four-lane divided minor arterial facility that runs generally in a north south direction with an existing posted speed that varies from 45 to 50 mph. Bicycle and pedestrian facilities are provided intermittently throughout the study area. There are three bridges over SR 535 within the study limits. Two of the existing bridges serve eastbound and westbound SR 417 and one of the existing bridges serves both eastbound and westbound Osceola Parkway. The existing drainage system collects roadway runoff in ditches and conveys the roadway runoff to treatment ponds via roadside ditches. Existing typical sections are provided in Figure 2-2. The proposed improvements include widening SR 535 from four to six lanes, constructing signal improvements, providing drainage treatment and providing shared use paths along both sides of the roadway. The existing bridges will not be modified. The typical section for the preferred alternative is provided in **Figure 1-2**.



Figure 1-1 - Project Location

1.2 Purpose & Need

The purpose and need of the project is to accommodate future projected traffic demand and improve safety.

1.2.1 Transportation Demand

In the existing condition, the section of SR 535 from US 192 to Kyngs Heath Road operates at a Level of Service (LOS) D with an Annual Average Daily Traffic (AADT) of 28,300; the section from Kyngs Heath Road to Poinciana Boulevard operates at LOS D with an AADT of 26,900; the section from Poinciana Boulevard to Polynesian Isle Boulevard operates at LOS D with an AADT of 46,800; the section from Polynesian Isle Boulevard to World Center Drive operates at LOS D with an AADT of 44,300.

Based on the approved Orange County and Osceola County Comprehensive Plan's future landuses that are included in the Central Florida Regional Planning Model (CFRPM) version 7.0, in the future year (2045) No-Build condition, the section of SR 535 from US 192 and Kyngs Heath Road is projected to operate at LOS F with an AADT of 42,000; the section from Kyngs Heath Road to Poinciana Boulevard is projected to operate at LOS E with an AADT of 40,000; the section from Poinciana Boulevard to Polynesian Isle Boulevard is projected to operate at LOS F with an AADT of 69,000; the section from Polynesian Isle Boulevard to World Center Drive is projected to operate at LOS F with an AADT of 66,000.

1.2.2 Safety

A total of 981 crashes were reported on SR 535 from US 192 to Lake Bryan Beach Boulevard in the five-year period from 2014 through 2018. Of those reported crashes, 463 (47%) resulted in injury and four (4) resulted in a fatality. The most frequent crash type was rear end with 605 (62%) total crashes, indicating congestion. Sideswipe crashes were the second highest with 106 (11%), followed by left-turn with 93 (9%) total crashes. Of the 981 crashes, 602 (61%) crashes occurred during daylight conditions. The crash rates along this segment of SR 535 exceed the FDOT statewide averages for similar facilities.

1.3 Project Status

The project is within the jurisdiction of MetroPlan Orlando. The MetroPlan Orlando 2045 Cost Feasible Plan (CFP) includes widening of SR 535 from US 192 in Osceola County to SR 536 in Orange County in years 2031 to 2035 (construction). The SR 535 improvements are funded for design in the Florida Department of Transportation (FDOT) 2024-2029 Five-Year Work Program and MetroPlan Orlando 2023-2028 Transportation Improvement Program (TIP). This project was screened in the Efficient Transportation Decision Making (ETDM) system as ETDM #14325.

1.4 Commitments

FDOT has made a series of commitments and recommendations during this PD&E Study. The following sections summarize the commitments and recommendations that will be adhered to during the future transportation phases.

- The most recent version of the USFWS Standard Protection Measures for the Eastern Indigo Snake will be utilized during construction.
- FDOT will require contractors to remove garbage daily from the construction site or use bear proof containers for securing of food and other debris from the project work area to prevent these items from becoming an attractant for the Florida black bear (Ursus americanus floridanus). Any interaction with nuisance bears will be reported to the FWC Wildlife Alert hotline 888-404-FWCC (3922).

1.5 Alternatives Analysis Summary

The following alternatives were evaluated during the study:

- 'No-Build' Alternative
- Construction ('Build') Alternatives

The build alternative consists of widening SR 535 from four to six lanes. The study evaluated a range of typical section and intersection alternatives including inside widening and outside widening of the existing roadway. The build alternative analysis included the evaluation of open and closed stormwater drainage conveyance systems together with the evaluation of pond site locations. The study also evaluated Transportation System Management and Operations (TSMO) and multimodal improvements.

1.6 Description of Preferred Alternative

The Preferred Alternative consists of inside widening from four to six lanes with a shared use path along both sides and intersection improvements. The preferred alternative is shown on **Figure 1-2**.

The Preferred Alternative has a design speed of 45-miles per hour (mph) and consists of full reconstruction with the additional lanes constructed towards the median. The typical section consists of three (3) 11-foot travel lanes in each direction separated by a 32-foot to 47-foot median with a 14-foot shared use path on the west side and a 12-foot shared use path on the east side of the roadway. The Preferred Alternative will be constructed within the existing right-of-way width of 200-feet to 224-feet. Swales with ditch bottom inlets in conjunction with flume inlets at the curb line will be provided for drainage conveyance. Stormwater attenuation and floodplain compensation will be provided.

4' 14' 2' Varies 7-4" To 32' 2' 11' 11' Varies 32' To 47' 11' 11' 11' 2' Varies 2-8" To 46-6" 2' 12' 4' Shared Use Path

R/W Varies 200' Min. To 224' Max.

Shared Use Path

Figure 1-2 - Preferred Alternative Typical Section

Roadway improvements would not require extending or reconstructing the existing bridges over SR 535 (One (1) bridge carries Osceola Parkway traffic over SR 535 and two (2) bridges carry SR 417) as all improvements will fit under the existing structures (see **Figure 1-3** and **Figure 1-4**).

Figure 1-3 - Osceola Parkway over SR 535



Figure 1-4 - SR 417 over SR 535



1.6.1 Intersection Improvements

The Preferred Alternative will also implement intersection improvements including the following innovative intersection concepts.

Polynesian Isle Boulevard Partial Median U-Turn (PMUT): Implementation of the PMUT involves the removal of northbound and southbound direct left turn movements from SR 535 to Polynesian Isle Boulevard and the addition of signalized U-turns at the existing median openings located just north and south of the intersection along SR 535 to accommodate vehicles wishing to travel east or west on Polynesian Isle Boulevard.

- International Drive Partial Displaced Left Turn (PDLT). Implementation of the PDLT involves the removal of direct eastbound and westbound left turns from Internation Drive at SR 535 with the displaced left turns installed on both legs International Drive. The northbound and southbound left turn movements for SR 535 continue to take place at the main intersection.
- SR 536 (World Center Drive) Partial Displaced Left Turn (PDLT). Implementation of the PDLT involves the removal and replacement of direct northbound and southbound left turns from SR 535 at SR 536 with the displaced left turns installed on both legs of SR 535.
 The eastbound and westbound left turn movements for the SR 536/World Center Drive continue to take place at the main intersection.

1.6.2 Drainage

There are 4 basins in the existing and proposed condition, and all basins drain to permitted stormwater systems in the existing condition (see **Table 1-1**). Where feasible, stormwater management facilities have been recommended within existing FDOT or County right-of-way (R/W). Below is a summary of the preferred pond alternatives (see **Figure 1-3**).

- Basin 1: Alternative 1A is the Preferred Alternative for Basin 1. Alternative 1A consists of an existing wet detention pond (identified as Exist. Pond 1-1) within FDOT R/W to provide the required water quality treatment and attenuation volumes.
- Basin 2: Alternative 2A is the Preferred Alternative for Basin 2. Alternative 2A consists of 2 ponds, one existing wet detention pond within existing FDOT R/W (identified as Exist. Pond 2-1) interconnected with a second wet detention pond (identified as Pond 2-2) to provide the required water quality treatment and attenuation volumes. Since there is insufficient area within the existing FDOT R/W to provide a stormwater management alternative to meet water quality treatment and attenuation requirements, Pond Alternative 2A will require acquisition of R/W.
- Basin 3: Alternative 3A is the Preferred Alternative for Basin 3. Alternative 3A consists of 2 ponds, one existing wet detention pond within existing FDOT R/W (identified as Exist. Pond 3-1) interconnected with a second wet detention pond (identified as Pond 3-2) to provide the required water quality treatment and attenuation volumes. Since there is insufficient area within the existing FDOT R/W to provide a stormwater management

- alternative to meet water quality treatment and attenuation requirements, Pond Alternative 3A will require acquisition of R/W.
- <u>Basin 4</u>: Alternative 4A is the Preferred Alternative for Basin 4. Alternative 4A consists of an existing wet detention pond (identified as Exist. Pond 4-1) within existing R/W and easement to provide the required water quality treatment and attenuation volumes.

Table 1-1 - Preferred Pond Alternatives

Basin	Preferred Alternative	Ponds	Туре	R/W Req'd.	Remarks			
1	1A	Exist. Pond 1-1	Wet	0.0	Exist. pond sufficient. Reduced drainage area (30.94 ac to 29.16 ac) from exist. to proposed conditions. Increased freeboard in exist. pond. Pond within exist. R/W			
2	2A	Exist. Pond 2-1 and Pond 2-2	Wet	3.0	Interconnected ponds to provide required water quality treatment and attenuation. Utilize Exist. Pond 2-1 outfall to Shingle Creek. Exist. Pond 2-1 within exist. R/W. Estimated R/W needs for Pond 2-2 provided (excluding public R/W used for pond).			
3	3A	Exist. Pond 3-1 and Pond 3-2	Wet	3.5	Interconnected ponds to provide required water quality treatment and attenuation. Utilize Exist. Pond 3-1 and Pond 3-2 outfalls to Shingle Creek. Exist. Pond 3-1 within exist. R/W. Estimated R/W needs for Pond 3-2 provided (excluding public R/W used for pond).			
4	4A	Exist. Pond 4-1	Wet	0.0	Exist. pond sufficient. Reduced drainage area (8.70 ac to 7.63 ac) from exist. to proposed conditions. Increased freeboard in exist. pond. Pond within exist. R/W			

An analysis of floodplain impacts and Floodplain Compensation (FPC) alternatives was performed. Project improvements will impact the 100-year floodplain as a result of longitudinal impacts and transverse impacts. The preferred FPC alternative and anticipated right of way needs associated with the preferred alternative are provided in Table 1-2.

Table 1-2 - Preferred FPC Site

Name	Floodplain Impacts (ac-ft)	Floodplain compensation Volume Provided (ac-ft)	Estimated Pond R/W Req'd. (including access) (ac)
FPC-1	8.89	14.45	4.3



Figure 1-5 - Preferred Alternative Ponds

1.6.3 Right of way and Construction Cost

SR 535 has an existing right-of-way of 224 feet which is ample right-of-way to accommodate the Preferred Alternative. Some right-of-way impacts will be required to accommodate intersection improvements at the International Drive and World Center Drive (SR 536) intersections and for offsite ponds. Approximately 11.5 acres of right-of-way impacts (excluding public R/W required) are anticipated as a result of the preferred alternative. Approximately 0.7 acres are associated with improvements at the SR 535/International Drive and SR 535/World Center Drive (SR 536) intersections. Additionally, approximately 10.8 acres are associated with the required stormwater and floodplain compensation ponds (excluding public R/W required). A total of 8 parcels are anticipated to be impacted from the preferred alternative. See **Table 1-3** for cost estimate.

Table 1-3 - Cost Estimate

_			
	Cost		
Construction	\$76.5M		
R/W	\$38.1M		
Utility Relocation	\$7M		
Sub Total	\$121.6M		
Design (15%)	\$11.5M		
CEI (10%)	\$7.7M		
Total Estimated Project Cost	\$140.8M		

2.0 METHODOLOGY

In accordance with Part 2, Chapter 20 (revised July 1, 2023) of the *PD&E Manual*, a Contamination Screening Evaluation (Level 1) was conducted to identify and rate potential contamination risks to the proposed project. In addition to sites discovered during field assessments, this report identifies and evaluates known landfills, Comprehensive Environmental Response, Compensation, and Liability Act sites (CERCLA, also known as Superfund), and National Priorities List (NPL) sites within one half-mile of the project corridor. Known sites of petroleum contamination, drycleaners, and non-petroleum contamination within 500 feet of the project corridor were identified and investigated, as were non-landfill solid waste sites within 1,000 feet of the project corridor. The project study area was created using the Preferred Alternative, including pond alternatives, and the above-listed buffers. This evaluation includes a review of the following:

- Efficient Transportation Decision Making (ETDM) Summary Report Number 14325;
- FDOT Environmental Screening Tool (EST) contamination data;
- Florida Department of Environmental Protection (FDEP) OCULUS database and Map Direct contamination data;
- US Environmental Protection Agency (USEPA) Resource Conservation and Recovery Act (RCRA) databases;
- Field review of project corridor, neighboring properties, and known potential contamination sites;
- Historic aerial image review.

2.1 Government Database and Regulatory File Reviews

Information regarding potentially contaminated sites was obtained through the ETDM system, EST contamination layer, and Florida Geographic Data Library Geographic Information System (GIS) layers as well as the FDEP OCULUS, FDEP Map Direct, and USEPA RCRA contamination databases (see **Appendix A** for Medium and High Risk Sites). These data sources include information on biomedical waste sites, brownfield location boundaries, dry cleaners, gasoline stations, hazardous waste sites, NPL and Superfund sites, nuclear site locations, State

Underground Petroleum Environmental Response Act (SUPER Act) Risk Sources, solid waste facilities, storage tanks and RCRA facilities.

2.2 Field Reviews

Preliminary field investigations occurred on January 16, 2020, and again on June 29, 2020. In depth field surveys were conducted on September 21, 2022, and November 4, 2022. Final field inspections occurred on November 13, 2023 and February 20, 2024. Sites listed within appropriate buffers were visited in the field and notes and field photos were recorded, as appropriate.

2.3 Risk Ratings

Based on the analysis of data described above, each site was assigned a risk rating following the guidance provided in Part 2, Chapter 20 of the *PD&E Manual*. The ratings system evaluates the likelihood that a contaminated site may impact a project and provides information needed to target avoidance and remediation.

expresses the degree of concern for a potential contamination impact to the project via cost and schedule. Each site was assigned a contamination risk rating of No, Low, Medium, or High based on the following criteria:

- No A review of available information on the property and a review of the conceptual or design plans indicates there is no potential contamination impact to the project. It is possible that contaminants have been handled on the property. However, findings from the Level I evaluation indicate that contamination impacts are not expected.
- 2) Low A review of available information indicates that past or current activities on the property have an ongoing contamination issue; the site has a hazardous waste generator identification (ID) number, or the site stores, handles, or manufactures hazardous materials. However, based on the review of conceptual or design plans and/or findings from the Level I evaluation, it is not likely that there would be any contamination impacts to the project.
- 3) Medium After a review of conceptual or design plans and findings from a Level I evaluation, a potential contamination impact to the project has been identified. If there is insufficient information (such as regulatory records or site historical)

documents) to make a determination as to the potential for contamination impact, and there is reasonable suspicion that contamination may exist, the property should be rated at least as a "Medium". Properties used historically as gasoline stations and which have not been evaluated or assessed by regulatory agencies, sites with abandoned in place underground petroleum storage tanks or currently operating gasoline stations should receive this rating.

4) High - After a review of all available information and conceptual or design plans, there is appropriate analytical data that shows contamination will substantially impact construction activities, have implications to ROW acquisition or have other potential transfer of contamination related liability to the FDOT.

3.0 LAND USES

3.1 Existing Land Uses

The project is located in both Osceola and Orange Counties, northeast of the community of Celebration, Florida. The term "project corridor" is used in this document to represent a smaller area that encompasses the existing S.R. 535 right-of-way and the footprint of the Build Alternative. The term "project area" represents a larger expanse that encompasses the project corridor as well as all land within 500 feet of the centerline of S.R. 535. The project corridor is 2.2 miles in length.

Within the Osceola County portion of the project area, the predominant land use is commercial and services including hotels and vacation rentals, retail strip malls and supermarkets, restaurants, and gas stations. Select areas within this southern half of the project remain undeveloped, including cleared land east of SR 535 immediately south of the county line and vegetated parcels south of N Poinciana Blvd east of SR 535 and south of Calypso Cay Way west of SR 535.

The Orange County portion of the project is predominantly upland vegetated land uses, including pine flatwoods and mixed hardwood forests, and some forested wetland land uses. Commercial services, including shopping centers located just north of the county line east of SR 535, and a strip mall including a gas station and pharmacy at the southeast corner of the SR 535 and SR 536 intersection. The northern extent of the project area includes residential neighborhoods on both the east and west sides of SR 535 as well as a golf course located northwest of the SR 535 and SR 536 intersection.

Land use cover descriptions provided for both uplands and wetlands are classified utilizing the *Florida Land Use Cover and Forms Classifications System* (FLUCFCS) designations. Previous and existing land uses in the project area were initially determined utilizing US Geological Survey (USGS) maps, historical images, aerial photographs, and land use mapping from the South Florida Water Management District (SFWMD) (2017-2019). Land use categories in the project area reported by SFWMD were verified in the field. Field reviews generally confirmed the SFWMD land use mapping with very minor adjustments. Land use categories in the project area as mapped by SFWMD are shown in **Figures 3-1** and **3-2** and each land use category in the project area is described below.

1800 1330 1900 8310 5300 1820 1400 6170 8320 6172 4110 4110 International Dr & 3200 8140 6210 4110 5300 6300 1340 4110 3200 1490 1411 1400 417 6300 4110 7400 LEGEND PROJECT CORRIDOR PROPOSED PONDS 1900 PROJECT AREA (500' BUFFER) SFWMD LAND USE (2019) 1400 - COMMERCIAL AND SERVICES 1400 1860 - COMMUNITY RECREATION FACILITIES 6210 - CYPRESS 6216 - CYPRESS - MIXED HARDWOODS 7400 - DISTURBED LAND 8310 - ELECTRICAL POWER FACILITIES 8320 - ELECTRICAL POWER TRANSMISSION LINES 6440 - EMERGENT AQUATIC VEGETATION 6410 - FRESHWATER MARSHES / GRAMINOID PRAIRIE - MARSH 1820 - GOLF COURSE 1290 - MEDIUM DENSITY UNDER CONSTRUCTION 6172 - MIXED SHRUBS Lonesome Dove D7 6170 - MIXED WETLAND HARDWOODS 1460 1340 - MULTIPLE DWELLING UNITS, HIGH RISE 1330 - MULTIPLE DWELLING UNITS, LOW RISE W Osceola Pkwy 1460 - OIL AND GAS STORAGE - NOT INDUSTRIAL OR MANUFACTURING. 1400 1900 - OPEN LAND 4110 - PINE FLATWOODS 1800 - RECREATIONAL 5300 - RESERVOIRS 8140 - ROADS AND HIGHWAYS 1411 - SHOPPING CENTERS 500 1,000 3200 - UPLAND SHRUB AND BRUSHLAND 6300 - WETLAND FORESTED MIXED

Figure 3-1 - Land Use in Orange County Project Area

Figure 3-2 - Land Use in Osceola County Project Area 3200 4110 1490 1411 1400 6300 4110 7400 Sunrise City Dr 1400 6216 5300 Walmar 1460 8140 1290 1400 1900 1400 PROJECT CORRIDOR PROPOSED PONDS PROJECT AREA (500' BUFFER) SFWMD LAND USE (2019) 1400 - COMMERCIAL AND SERVICES 1490 - COMMERCIAL AND SERVICES UNDER CONSTRUCTION. 1860 - COMMUNITY RECREATION FACILITIES 6210 - CYPRESS 6216 - CYPRESS - MIXED HARDWOODS 7400 - DISTURBED LAND 8310 - ELECTRICAL POWER FACILITIES 8320 - ELECTRICAL POWER TRANSMISSION LINES 6440 - EMERGENT AQUATIC VEGETATION 1400 6410 - FRESHWATER MARSHES / GRAMINOID PRAIRIE - MARSH 1820 - GOLF COURSE 5200 - LAKES 1290 - MEDIUM DENSITY UNDER CONSTRUCTION 6172 - MIXED SHRUBS 6170 - MIXED WETLAND HARDWOODS 1340 - MULTIPLE DWELLING UNITS, HIGH RISE 5300 6440 6410 1330 - MULTIPLE DWELLING UNITS, LOW RISE 1460 - OIL AND GAS STORAGE - NOT INDUSTRIAL OR MANUFACTURING. 5200 1860 4110 - PINE FLATWOODS 1800 - RECREATIONAL 5300 - RESERVOIRS 8140 - ROADS AND HIGHWAYS Lake Cecile 1411 - SHOPPING CENTERS 500 1,000 3200 - UPLAND SHRUB AND BRUSHLAND 6300 - WETLAND FORESTED MIXED

Residential, Medium Density Under Construction (FLUCFCS – 1290)

This category refers to a residential areas in the process of construction with a dwelling density of 2 to 5 per acre once completed. If more than 2/3 of the construction if completed, then the area should be coded by the 1200 FLUCFCS for medium density residential. This land use type occurs immediately southeast of the on-ramp to eastbound Osceola Parkway from northbound SR 535.

Residential High Density, Multiple Dwelling Units (FLUCFCS - 1330)

This category refers to a density of six or more dwelling units per acre. This land use category includes two-story town homes, duplexes, and other low-rise residential structures. Low-rise residential areas are newer developments which are commonly located on the urban fringe. This class is found in one location in the project area at the northwestern limits of the study area northwest of the SR 535 and World Center Drive intersection.

Commercial and Services (FLUCFCS – 1400)

This is an active land use category that includes a broad range of uses and operations providing diverse products and services which often occur in complex mixtures. Subclasses include retail and wholesale, professional, cultural and entertainment, and tourist services, as well as others. The 1400 class includes shopping centers, commercial strip developments, warehouses, junk yards, campgrounds, and amusement parks. These areas are usually located along main transportation routes or at the intersections of secondary transportation corridors. This land use category accounts for a large portion of the study area and is found in several locations. This includes the southern portion of the project located south of SR 417 to south of US 192, aside from one area of 1900 Open Land and one area of 1290 Residential, Under Construction. This category is also located west of SR 535 from north of Osceola Parkway to SR 417 and east of SR 535 north and south of the World Center Drive intersection near the project's northern terminus.

Shopping Centers (FLUCFCS – 1411)

This land use category includes varying sizes and shapes of buildings which share common parking facilities for customers. These include both connected and unconnected buildings commercial and retail facilities. This land use is found in one location of the project corridor at the outlet stores located south of LBV Factory Stores Drive north of the Osceola-Orange County Line and south of SR 417.

Oil and Gas Storage (FLUCFCS – 1460)

This land use category includes storage facilities for petroleum, oil, and lubricant product retail and wholesale sales. This category can be identified by tanks, spill enclosures, internal roads/railroads, spurs, embankments, piers, and maintenance facilities. This land use is found in one location in the project area, west of SR 535 from north of W Osceola Parkway to south of Poinciana Blvd.

Recreational (FLUCFCS - 1800)

This land use category is used for outdoor activities such as community sports, open-air performances, and fairgrounds. This includes well organized grounds with parking facilities, which are typically not paved. This land use is found in one location at the northeast limits of the study area in association with the adjacent resort complexes on Lake Bryan around Lake Bryan Beach Blvd.

Golf Course (FLUCFCS - 1820)

Golf courses are easily recognizable by their distinctive well-maintained grass areas, fairways, and ponds. Golf courses are typically constructed in low-lying areas such as pine flatwoods and may be adjacent to, or displace wetlands. These wetlands would not be broken out of the 1820 Golf Course land use classification unless they meet the two acre minimum mapping unit criteria. This land use is associated with the Hawk's Landing Golf Club located northwest of the World Center Drive and SR 535 intersection.

Open Land (FLUCFCS - 1900)

This land use category includes open, undeveloped land within urban areas which are typically interpreted as transitional or uncertain land uses. This land use does not include forests or wetlands, unless they occur as small areas which do not meet the mapping unit criteria within the 1900 land use. This open land category is found in one location within the study area, south of the Calypso Cay Way to the west of SR 535.

Upland Shrub and Brushland (FLUCFCS – 3200)

This category is for upland non-agricultural, non-forested lands which exhibit no evidence of cattle grazing. This class includes areas where tree species are regenerating naturally after clear cutting or fire but are less than 20 feet tall. This includes native hardwood and coniferous species but does not apply to plantations. This land use type occurs in one location in the study area to the

east of SR 535 from SR 417 to the commercial land uses immediately south of World Center Drive.

Pine Flatwoods (FLUCFCS – 4110)

This class is for naturally generated pine flatwoods. The canopy closure must be 25 percent or more and the trees must average over 20 feet tall. The pine flatwoods class is dominated by slash pine, longleaf pine, or both. Common understory species include saw palmetto, wax myrtle, gallberry, and a wide variety of herbs and brush. Pine flatwoods are the most prevalent community in natural areas. Most pine flatwoods occur on broad, low, flat areas with seasonal high-water tables but not on hydric soils. They transition into mesic flatwood and hardwood communities on higher ground and into hydric flatwoods, cypress, and other wetlands on the lower edges. Pine flatwoods are found in four places in the project area. One area is located to the east of SR 535 from the county line to south of the factory outlets at LBV Factory Stores Dr and another area is located north of the LBV Factory Stores Dr to south of SR 417. The other two areas are located to the west of SR 535 from SR 417 to World Center Drive and are separated by International Drive S.

Reservoirs (FLUCFCS - 5300)

This class is for artificial impoundments of water, or water bodies that have been significantly modified from the natural state. They are used for irrigation, flood control, municipal and rural water supplies, stormwater treatment, recreation, and hydro-electric power generation. Reservoirs are found in multiple places throughout the project area. Reservoirs land use is found in one location in the study area, to the east of SR 535 immediately north of Osceola Parkway.

Cypress – Mixed Hardwoods (FLUCFCS – 6216)

This class is used for forested wetland communities dominated by a mix of pond or bald cypress and hardwood swamps. This land use type is found in one location in the study area, immediately south of Poinciana Blvd to the east of SR 535.

Disturbed Land (FLUCFCS - 7400)

This land use class is used for areas where soil or substrate has been altered or removed by human activity, whether or not the cause is known. The Level 1 Barren Land category, including this 7400 Disturbed Land sublevel, is only applied to upland areas. This land use type is found in

one location in the study area, to the east of SR 535 from north of Poinciana Blvd to south of the county line.

Roads and Highways (FLUCFCS – 8140)

This class includes those highways exceeding 100 feet in width, with 4 or more lanes and median strips. The intent of this data layer is to include only the major transportation corridors. This land use type is mapped for SR 535, US 192, Osceola Parkway, Poinciana Boulevard, SR 417, International Drive South, and World Center Drive.

Electrical Power Facilities (FLUCFCS – 8310)

Electrical power facility land uses include fossil fuel and nuclear plants. Associated facilities include transformer yards, cooling ponds or towers, and fuel storage. One electrical power facility is found within the project area approximately 500 feet north of the World Center Drive and SR 535 intersection, to the east of SR 535.

3.2 Historic Land Uses

A review of Google Earth historic aerial imagery from 1984 to the present was performed. Aerial images from the University of Florida Digital Collections Website (https://ufdc.ufl.edu/locations) and Google Earth historic view were reviewed for potential contamination concerns. Possible indications of contamination concerns could include, but are not limited to, mounds, depressions, storage areas, trash pits, dipping tanks or drastic changes in landscaping or geographic features. A brief discussion of the review of historical aerial photographs is provided below. No indications of contamination concerns were identified using historic aerial images. Historic aerial photographs are included below in **Photographs 1** through **5**.

1984- The current SR 535 corridor is apparent but shows little development along SR 535 or surrounding areas. The residential neighborhood north of the project and west of SR 535, by Vistana Drive, appears to be under development.

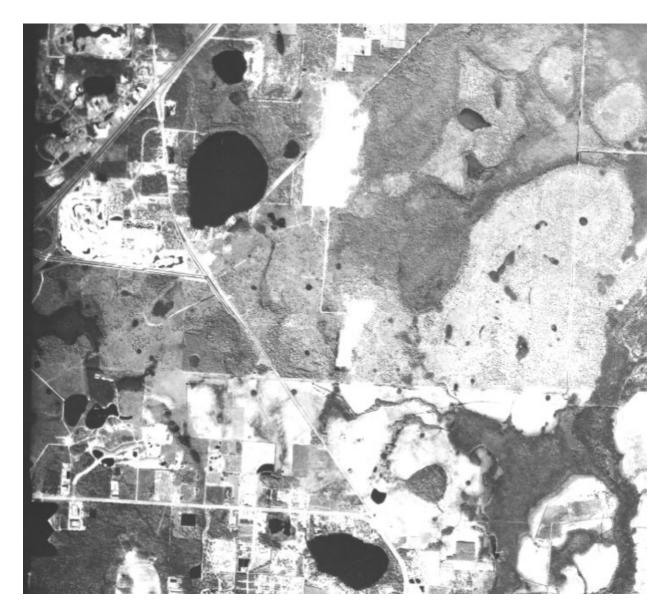
1995- Most of the area adjacent to SR 535 within the project limits is undeveloped. Retail business and hotels are present at the intersection of SR 535 and US 192.

1999- Development is apparent in two locations in Orange County east of SR 535.

2004- Wal-Mart supercenter is constructed in Osceola County

2007- Large-scale clearing has occurred east of SR 535 and south of W. Osceola Parkway residential and commercial developments.

2010 and Later- Undeveloped parcels in Osceola County generally become developed with commercial use. Additional development is apparent around the west side of the intersection of SR 535 and World Center Drive.



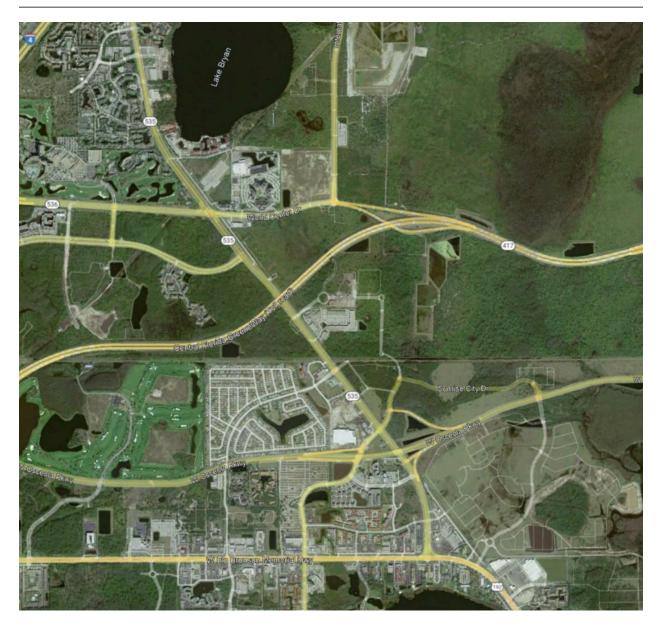
Photograph 1- 1984 Aerial Photograph from University of Florida Collection



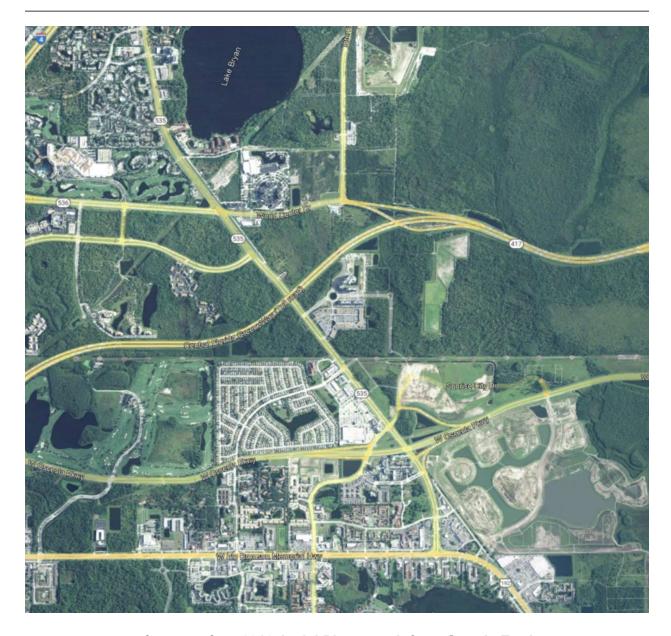
Photograph 2- 1995 Aerial Photograph from Google Earth



Photograph 3- 1999 Aerial Photograph from Google Earth



Photograph 4- 2004 Aerial Photograph from Google Earth



Photograph 5- 2010 Aerial Photograph from Google Earth

4.0 HYDROLOGIC FEATURES

Major hydrologic features mapped by the USFWS National Wetlands Inventory (NWI) in the project area are shown in **Figures 4-1** and **4-2**. A freshwater pond within a golf course is located north of S.R. 536 and west of S.R. 535 that intersects a small portion of the project area. There are also two patches of freshwater forested/shrub wetland that intersect the project area; one patch is located south of International Drive and stretches down south of S.R. 417 to the border of Orange and Osceola County, and another patch is located north of West Osceola Parkway and east of S.R. 535.

The project sits atop the Biscayne Aquifer, a Sole Source Aquifer as identified by the U.S. Environmental Protection Agency (USEPA). This project is located within the SFWMD's Reedy Creek and Shingle Creek Basins. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (updated September 25, 2009), a portion of the project area in the northwest is located within the 500-year floodplain (Zone A). The remaining project area is categorized as Zone X, which is an area of minimal flood hazard.

e Bryan Beach blvd World Center Dr World Cente: Dr 417 Flying Eagle Li Falcons Fire LEGEND PROJECT CORRIDOR Lonesome Dove Dr PROPOSED PONDS PROJECT AREA (500' BUFFER) W Osceola Pkwy USFWS NWI (2023) FRESHWATER EMERGENT WETLAND FRESHWATER FORESTED/SHRUB WETLAND FRESHWATER POND LAKE 500 1,000 RIVERINE

Figure 4-1 - Hydrologic Features in Orange County Project Area

Sunrise City Dr Walmart Supercent W Osceola PKWV Disney Cifts
Outlet
Irlo Bronson Memorial Hwy Taco Bell W Irlo Bronson Memoria I Hwy LEGEND PROJECT CORRIDOR PROPOSED PONDS PROJECT AREA (500' BUFFER) USFWS NWI (2023) FRESHWATER EMERGENT WETLAND FRESHWATER FORESTED/SHRUB WETLAND FRESHWATER POND LAKE 500 1,000 RIVERINE

Figure 4-2 - Hydrologic Features in Osceola County Project Area

5.0 POTENTIAL PROJECT IMPACTS

5.1 Potentially Contaminated Sites

A total of 22 sites of potential contamination risk were identified, including 1 High Risk, 9 Medium Risk, and 12 Low Risk sites (**Table 5-1**). Information on each site is summarized in **Table 5-2** and locations are shown in **Figures 5-1** and **5-2**. Individual site descriptions including field observations and a summary of available documentation are provided in the text below. **Appendix A** contains site documentation related to each Medium and High risk site. Photographs of each Medium and High Risk site are provided in **Appendix B**.

Table 5-1 - Risk Rating Summary

Risk Rating	Number of Sites	Number of Sites proposed for ROW aquisition		
Low	12	0		
Medium	9	0		
High	1	1		

Table 5-2 - Site Information

Site No.	Facility Name	Address	Facility ID (FDEP/RCRA)	Source/Databases	Site Descriptions	Concerns	Approximate Distance from Project	Risk Rating
1	7-Eleven Food Store #27584	2975 Vineland Rd	8944621, Discharge ID: 9311	STCM; PCTS	Active Gas Station	Petroleum Products	Adjacent	Medium
2	Shell-Southbridge #285	3148 Vineland Rd	9063981, Discharge ID: 59807	STCM; PCTS	Active Gas Station	Petroleum Products	Adjacent	Medium
3	RMA	3490 Polynesian Isle Blvd	8945275, Discharge ID: 59075	STCM; PCTS	Former Gas Station	Petroleum Products	Adjacent	Low
4	Central FL Pipeline-Release	Hwy 535 & Polynesian Isle Blvd	9800541, Discharge ID: 50141	STCM; PCTS	Pipeline discharge site	Petroleum Products	Adjacent	Low
5	7-Eleven Food Store #29775	8250 World Center Dr	9201333, Discharge ID: 57943	PCTS, FDEP Cleanup	Active Gas Station	Petroleum Products	Adjacent	High
6	Progress Energy SARAP Lake Bryan Substation	8350 Lake Bryan Beach Blvd	122410, ERIC ID: ERIC_12781	ERIC Waste Cleanup	Florida Power Corporation Substation	Petroleum Products	Adjacent	Low
7	Daneta LLC	13725 SR 535	9808007, Discharge ID: 60792	STCM; PCTS	Former Gas Station	Petroleum Products	Adjacent	Low
8	Speedway #6434	3270 Vineland Rd	9803008	STCM; PCTS	Active Gas Station	Petroleum Products	Within proposed ROW	Medium
9	Publix Super Market #351	2915 Vineland Rd	9810287	STCM	Former non-retail fuel user	Petroleum Products	500 ft > east of project	Low
10	Embassy Suites Orlando-LK Buena Vista South	4955 Kyngs Heath Rd	9813192	STCM	Non-retail fuel user	Petroleum Products	Adjacent	Low
11	W Kissimmee Central Office	3080 Vineland Rd	8627084	STCM	Non-retail fuel user	Petroleum Products	Adjacent	Low
12	Wawa Food Market #5116	3140 Vineland Rd	9813385	STCM	Active Gas Station	Petroleum Products	Adjacent	Medium
13	Murphy USA #7190	3256 Vineland Rd	9807115	STCM	Active Gas Station	Petroleum Products	Adjacent	Medium
14	Publix Super Market #1607	3221 Vineland Rd	9815653	STCM	Non-retail fuel user	Petroleum Products	500 ft > east of project	Low
15	Racetrac #2305	15570 Apopka Vineland Rd	9813548	STCM	Active Gas Station	Petroleum Products	Adjacent	Medium
16	Orange Co Utility – PS SW #3597	14344 Hwy 535	9401271	STCM	Pump Station	Petroleum Products	Adjacent	Low

Site No.	Facility Name	Address	Facility ID (FDEP/RCRA)	Source/Databases	Site Descriptions	Concerns	Approximate Distance from Project	Risk Rating
17	Wal-Mart Supercenter #5420	3250 Vineland Rd	9807198	STCM	Small AST	Flammable Material	500 ft > west of project	Low
18	Rebel #861	7900 World Center Dr	9808444	STCM	Active Gas Station	Petroleum Products	500 ft > east of project	Medium
19	Hawkeye Heli-Tours LLC	5071 W Irlo Bronson Hwy	9814492	STCM	Non-retail fuel user	Petroleum Products	500 ft > west of project	Low
20	Sun Inn and Suites	5020 W Irlo Bronson Hwy	94990	Solid Waste Facilities	Hotel	Debris	Adjacent	Low
21	Orlando World Center Marriott	8701 World Center Drive	8627488	STCM	Golf Course	Petroleum Products	Adjacent	Low
22	Florida Midland Railroad	Along east side of SR 535	N/A	N/A	Former rail line	Historic contamination	Adjacent	Medium

7: DANETA LLC 21: ORLANDO WORLD CENTER MARRIOTT 16: ORANGE CO UTILITY - PS SW #3597 18: REBEL 5: 7-ELEVEN FOOD STORE #29775 #861 enter Dr W World Cent 3r Dr 6: PROGRESS ENERGY SARAP LAKE BRYAN SUBSTATION International Dr S 22: FLORIDA MIDLAND RAILROAD 15: RACETRAC #2305 4: CENTRAL FL PIPELINE-RELEASE 14: PUBLIX SUPER MARKET World Gateway 417 #1607 3: RMA 13: MURPHY USA #7190 Fire Golf Club Ponds 17: WAL-MART SUPERCENTER #5420 We Legend PROJECT CORRIDOR PROPOSED PONDS PROJECT AREA (500' BUFFER) CONTAMINATION RISK RATING LOW MEDIUM HIGH

Figure 5-1 - Contaminated Sites in Orange County Project Area

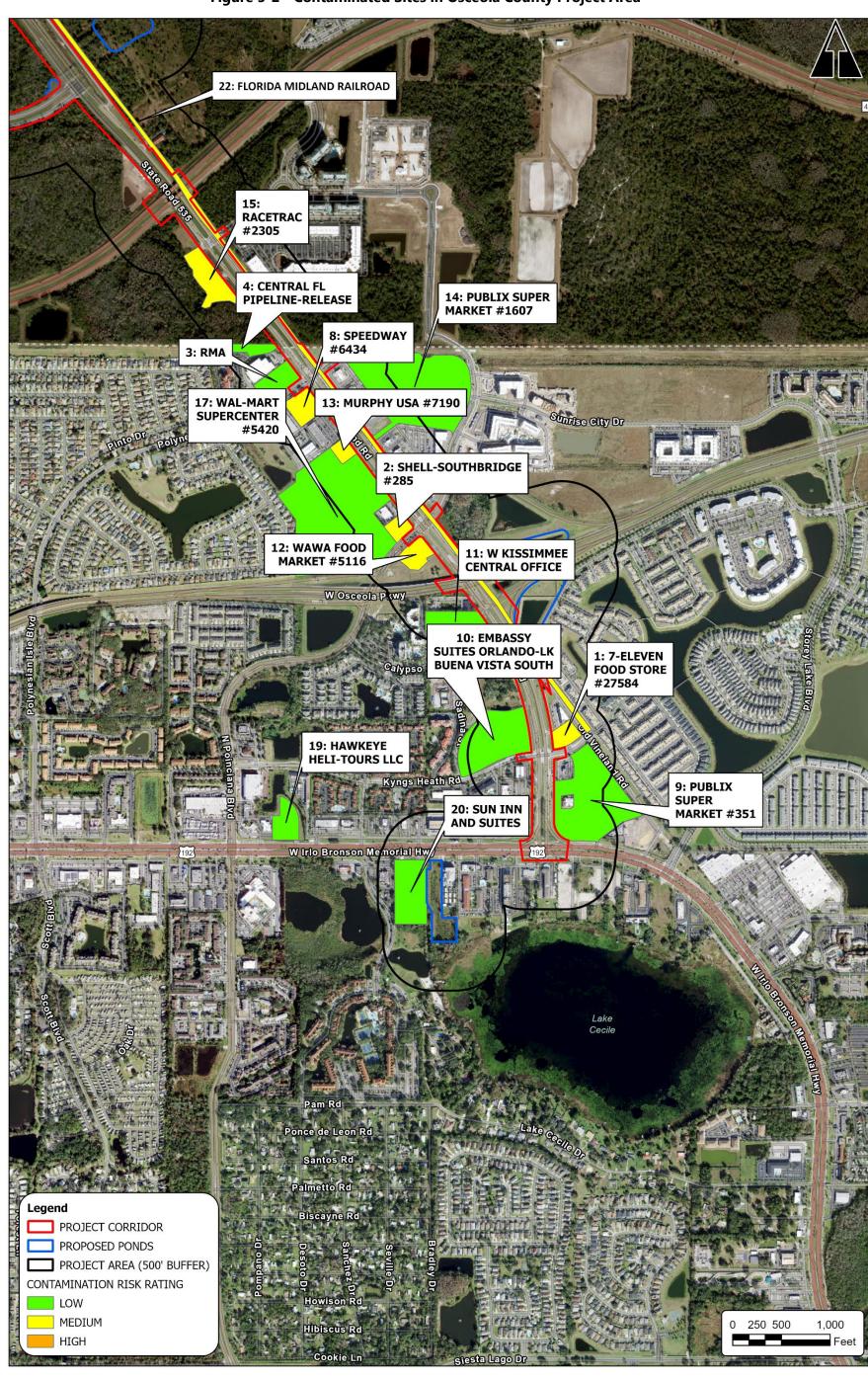


Figure 5-2 - Contaminated Sites in Osceola County Project Area

5.2 Individual Site Summaries

Site 1: 7-Eleven Food Store #27584

Address: 2975 Vineland Rd, Lake Mary, FL 32746

Facility ID: 8944621, Discharge ID: 9311

Database: Petroleum Contamination Monitoring (PCTS) Discharges

Summary: This site is an active 7-Eleven food store and gas station on the east side of SR 535, approximately 4,100 feet south of the Osceola County line. According to an FDEP tank registration form, four 10,000-gallon underground storage tanks (USTs) for unleaded gasoline were installed in January of 1988. A Discharge Reporting Form was filed in June of 1991 describing an accidental discharge of an unknown quantity of unleaded gasoline. In February of 2006, the original four USTs were removed and replaced with two more 10,000-gallon USTs. This site was remediated and granted a Site Rehabilitation Completion Order (SRCO) on January 3, 2008. The most recent FDEP inspection report from January of 2021 stated this site is in compliance. Since this site is an active gas station with a history of discharge, it is assigned a risk rating of Medium.

Site 2: Shell-Southbridge #285

Address: 3148 Vineland Rd, Kissimmee, FL 34746

Facility ID: 9063981, Discharge ID: 59807

Database: Petroleum Contamination Monitoring (PCTS) Discharges

Summary: This site is an active gas station adjacent to the project area, west of SR 535 and immediately north of N Poinciana Blvd. According to an FDEP tank registration form, three 10,000-gallon USTs storing unleaded gasoline were installed in November of 1990. A Tank Closure Assessment Report from June 28, 2010 noted the discovery of petroleum product groundwater contamination. As a result, a Natural Attenuation Monitoring Program (NAM) was created and implemented in October of 2011. In March of 2015, a Site Rehabilitation Completion Order confirmed rehabilitation was complete and a No Further Action Proposal (NFAP) was submitted. The UST with history of discharge was closed in place in September of 2019. The most recent FDEP inspection report from April of 2022 stated this site is in compliance. Since this site is an active gas station with a history of discharge, it is assigned a risk rating of Medium.

Site 3: RMA

Address: 3490 Polynesian Isle Blvd, Kissimmee, FL 34746

Facility ID: 8945275, Discharge ID: 59075

Database: Petroleum Contamination Monitoring (PCTS) Discharges

Summary: This site was formerly a convenience store and gas station and is located adjacent to the project area approximately 440 feet south of the Osceola County line and just west of SR 535. According to an FDEP tank registration form, three 10,000-gallon USTs storing unleaded gasoline were installed in October of 1989. An FDEP inspection report from May of 2009 noted a damaged spill bucket which could cause a potential discharge or release. As a result, another inspection was conducted to begin closure for these three 10,000-gallon USTs in December of 2010. A Remedial Action Plan (RAP) was developed and implemented in September of 2012 as a result of the previous discharge. The FDEP reviewed the Post Active Remediation Monitoring Annual Report – No Further Action Proposal dated April 8, 2016 and concluded that site cleanup objectives have been met. This site was issued a Site Rehabilitation Completion Order (SRCO) on July 7, 2016. Because this site was a former gas station that has been issued a SRCO, it is assigned a risk rating of Low.

Site 4: Central FL Pipeline-Release

Address: Hwy 535 & Polynesian Isle Blvd, Kissimmee, FL 32831

Facility ID: 9800541, Discharge ID: 50141

Database: Petroleum Contamination Monitoring (PCTS) Discharges

Summary: This site is a discharge site from the Central Florida Pipeline approximately 100 yards north of Polynesian Isle Blvd. An accidental discharge from a valve gasket in February of 1998 released approximately 400 gallons of unleaded gasoline into the soil. As a result, a Source Removal/Limited Site Assessment was initiated in February of 1998 and finalized in September of 1998. An IRA was completed in March of 1998 and approximately 338 tons of excessively contaminated soils were removed and 41,856 gallons of free product mixed with groundwater was collected. This discharge was granted No Further Action Status October 12, 1998. Because this site has one discharge that was remediated and granted No Further Action Status, it is assigned a risk rating of Low.

Site 5: 7-Eleven Food Store #29775

Address: C, Orlando, FL 32821

Facility ID: 9201333, Discharge ID: 57943

Database: Petroleum Contamination Monitoring (PCTS) Discharges

Summary: This site is an active gas station located immediately south of World Center Drive, just east of the intersection with SR 535. This facility contains three 10,000-gallon USTs that were installed in 1992. In June of 2007, an accidental discharge of an unknown amount of gasoline was reported. A Site Assessment Report from August of 2008 confirmed groundwater contamination exists on the property, but it did not extend beyond the property boundary, the extent of groundwater contamination did not exceed 1/4 acre, and the groundwater contamination was not migrating. Consequently, a Natural Attenuation Monitoring (NAM) Plan was submitted in October of 2008. FDEP issued a Declaration of Restrictive Covenant in October of 2020 for groundwater use restriction. Because of this discharge, restrictive covenant, and site history as a gas station, this site is assigned a risk rating of High. This site is adjacent to Pond Alternative 3-4 and within 500 feet of Pond Alternative 3-2.

Site 6: Progress Energy SARAP Lake Bryan Substation

Address: 8350 Lake Bryan Beach Blvd, Buena Vista, FL 32821

Facility ID: 122410, ERIC ID: ERIC_12781

Database: ERIC Waste Cleanup

Summary: This site is a Florida Power Corporation (FPC) substation located north of World Center Drive and just east of SR 535. A Preliminary Contamination Assessment Report (PCAR) was submitted in August of 2002 after FDEP conducted site inspections at several FPC substations and contamination concerns were documented. Nine soil samples were collected from five locations at the site. The laboratory results indicated various contaminants were detected in the soil, but none of the detected concentrations exceed Residential or Industrial Cleanup Target Levels. An FDEP letter from January of 2013 issued this site a No Further Action and Site Rehabilitation Completion Order. Because the contaminants did not exceed Residential or Industrial Cleanup Target Levels and no further action was required, this site is assigned a risk rating of Low.

Site 7: Daneta LLC

Address: 13725 SR 535, Orlando, FL 32821 Facility ID: 9808007, Discharge ID: 60792

Database: Petroleum Contamination Monitoring (PCTS) Discharges

Summary: This site is a former gas station, now closed, located immediately east of SR 535 at the northern end of the project. In July of 2004, one 16,000 gallon and one 20,000 gallon USTs were installed for petroleum storage. A Discharge Report Form was submitted in November of

2012 that confirmed an accidental discharge from a spill bucket. This spill bucket was repaired in January of 2013 per the Spill Bucket Replacement Closure Report filed in February of 2013. According to the Source Removal Report from December of 2013, approximately 15 cubic feet of soil surrounding the UST fill ports were excavated. Laboratory analyses detected no petroleum product contaminants of concern at concentrations exceeding the Soil Cleanup Target Levels. However, groundwater samples collected from a temporary monitoring well just outside the excavation boundary detected various contaminants which exceed the Groundwater Cleanup Target Levels. According to a Underground Storage Tank Closure Assessment Report dated January 27, 2023, all USTs were removed from the site and all soil and groundwater contaminant concentrations were below their respective cleanup target levels. For these reasons this site is assigned a risk rating of Low.

Site 8: Speedway #6434

Address: 3270 Vineland Rd, Kissimmee, FL 34746

Facility ID: 9803008, Discharge ID: 59966

Database: Petroleum Contamination Monitoring (PCTS) Discharges

Summary: This site is an active gas station and is located immediately west of SR 535 just south of the Orange-Osceola County line. Four 10,000-gallon USTs for petroleum products were installed in June of 2000. All four of the USTs had their spill buckets replaced according to the Spill Bucket Closure Report from May of 2005. A discharge was reported on December 2, 2010 when a UST valve failed and overflowed which released approximately 10 to 12 gallons of petroleum product. The contaminated soil was removed on December 3, 2010. A UST Spill Bucket Closure Report from August 21, 2017, states that the UST spill bucket was closed and replaced, and no further assessment was proposed. An FDEP letter from June 8, 2022, states that this site is in compliance. Because this site is an active gas station with a history of a small discharge that was remediated, it is assigned a risk rating of Medium.

Site 9: Publix Super Market #351

Address: 2915 Vineland Rd, Kissimmee, FL 34746

Facility ID: 9810287

Database: Storage Tank Contamination Monitoring (STCM)

Summary: This site is a former non-retail fuel user facility operating as a Publix Super Market. One 1,000-gallon Aboveground Storage Tank (AST) for storing emergency generator fuel was installed in March of 2008. The most recent Site Inspection Report dated October 27, 2017, stated

this facility was closed and the AST was removed. There was no evidence of petroleum released on or around the AST area. Because this site is no longer operating and there has been no history of discharge, it is assigned a risk rating of Low.

Site 10: Embassy Suites Orlando-LK Buena Vista South Address: 4955 Kyngs Heath Rd, Kissimmee, FL 34746

Facility ID: 9813192

Database: Storage Tank Contamination Monitoring (STCM)

Summary: This site is a non-retail fuel user operating as a hotel and is located adjacent to the project. One 1,000-gallon AST and one 875-gallon AST for storing emergency generator fuel were installed in December of 2011. Because of the presence of a fuel storage tank but no documentation of release of contaminants, this site is assigned a risk rating of Low.

Site 11: W Kissimmee Central Office

Address: 3080 Vineland Rd, Kissimmee, FL 34746

Facility ID: 8627084

Database: Storage Tank Contamination Monitoring (STCM)

Summary: This site is currently an office building located directly south of the W Osceola Pkwy and Vineland Rd intersection. One 2,000-gallon UST for storing emergency generator fuel was installed in February of 1982. According to a Tank Closure Report dated July 11, 1994, This UST was removed, and no evidence of petroleum contamination was discovered. Groundwater samples collected were below test detection limits. An AST was installed in November of 1993 to replace the previous UST. Because of the presence of a fuel storage tank but no documentation of release of contaminants, this site is assigned a risk rating of Low.

Site 12: Wawa Food Market #5116

Address: 3140 Vineland Rd, Kissimmee, FL 34741

Facility ID: 9813385

Database: Storage Tank Contamination Monitoring (STCM)

Summary: This site is an active retail fuel facility located in the southwest quadrant of the intersection of N Poinciana Blvd and Vineland Rd. Three 20,000-gallon USTs for storing unleaded gasoline were installed in September of 2012. The most recent documentation available states this site is in compliance with the FDEP storage tank rule. Because this site operates as a retail fuel facility it is assigned a risk rating of Medium.

SECTION 5 - POTENTIAL PROJECT IMPACTS

Site 13: Murphy USA #7190

Address: 3256 Vineland Rd, Kissimmee, FL 34746

Facility ID: 9807115

Database: Storage Tank Contamination Monitoring (STCM)

Summary: This site is an active retail fuel facility adjacent to the project, north of the intersection of N Poinciana Blvd and Vineland Rd. Two 20,000-gallon USTs for storing unleaded gasoline were installed in February of 2005. The most recent documentation available states this site is in compliance with the FDEP storage tank rule. Because this site operates as a retail fuel facility it is assigned a risk rating of Medium.

Site 14: Publix Super Market #1607

Address: 3221 Vineland Rd, Kissimmee, FL 34746

Facility ID: 9815653

Database: Storage Tank Contamination Monitoring (STCM)

Summary: This site is a non-retail fuel user operating as a Publix Super Market. A tank registration form was not available in FDEP records. However, according to a Site Inspection Form dated June 26, 2017, this site has one 1,000-gallon AST for storing emergency generator fuel. The most recent documentation available states this site is in compliance with the FDEP storage tank rule. Because of the presence of a fuel storage tank but no documentation of release of contaminants, this site is assigned a risk rating of Low.

Site 15: Racetrac #2305

Address: 15570 Apopka Vineland Rd, Orlando, FL 32841

Facility ID: 9813548

Database: Storage Tank Contamination Monitoring (STCM)

Summary: This site is an active retail fuel facility adjacent to the project. One 20,000-gallon and two 12,000-gallon USTs for storing unleaded gasoline were installed in January of 2013. The most recent documentation available states this site is in compliance with the FDEP storage tank rule. Because this site is an active retail fuel facility, it is assigned a risk rating of Medium.

Site 16: Orange Co Utility – PS SW #3597

Address: 14344 Hwy 535, Orlando, FL 32821

Facility ID: 9401271

Database: Storage Tank Contamination Monitoring (STCM)

Summary: This site is an active pump station located just north of the intersection between World Center Pkwy and Vineland Rd. One 550-gallon UST for storing emergency generator fuel was installed in July of 1991. According to a Site Inspection Report from November of 2020, this site had a minor violation concerning a release detection sensor, but no contaminant discharges have been reported. A return to compliance letter was sent on December 28, 2020. Because there is no documented history of release of contaminants, this site is assigned a risk rating of Low.

Site 17: Wal-Mart Supercenter #5420

Address: 3250 Vineland Rd, Kissimmee, FL 34746

Facility ID: 9807198

Database: Storage Tank Contamination Monitoring (STCM)

Summary: This site is currently operating as a Wal-Mart Supercenter with a single 800-gallon AST for storing waste/used oil. According to a Tank Registration Form dated March 28, 2005, this AST was installed on April 1, 2005. After reviewing all available information in the FDEP Nexus Information Portal, this facility appears in compliance with FDEP storage tank rules and regulations. Because there is no documented release of contaminants, this site is assigned a risk rating of Low.

Site 18: Rebel #861

Address: 7900 World Center Dr

Facility ID: 9808444

Database: Storage Tank Contamination Monitoring (STCM)

Summary: This site is an active retail fuel facility located immediately south of the intersection between World Center Dr and International Dr South. This site is not within the project study area. According to a Storage Tank Registration Form dated September 14, 2006, two 20,000-gallon USTs for storing unleaded gasoline were installed on September 11, 2006. After reviewing all available information in the FDEP Nexus Information Portal, this site has no discharge history. The most recent Site Inspection Report dated August 15, 2022, stated this site is out of compliance due to a few minor violations. However, none of these violations are likely to lead to a potential discharge. Because this site is an active gas station with minor violations, it is assigned a risk rating of Medium.

Site 19: Hawkeye Heli-Tours LLC

Address: 5071 W Irlo Bronson Hwy, Kissimmee, FL 34746

Facility ID: 9814492

Database: Storage Tank Contamination Monitoring (STCM)

Summary: This site is a non-retail fuel user facility located north of I-192 to the west of SR 535. This site is not within the project study area. A Storage Tank Registration Form dated February 27, 2015, stated one 3,000-gallon AST for storing aviation fuel was installed in March 2015. According to a Site Inspection Report dated March 18, 2021, the AST on-site was removed and installed at another facility. After reviewing all available information in the FDEP Nexus Information Portal, this site has no discharge history. Since the one AST on-site has been removed and there has been no discharge history, it is assigned a risk rating of Low.

Site 20: Sun Inn and Suites

Address: 5020 W Irlo Bronson Hwy, Kissimmee, FL 34746-5343

Facility ID: 94990

Database: Solid Waste Facilities

Summary: This site operates as a hotel and is located south of US 192 to the west of SR 535. According to a Complaint Investigation letter dated February 7, 2008, this site was storing solid waste behind the property near a wetland area without a permit or authorization from FDEP. According to FDEP Map Direct, this facility received No Further Action status on July 16, 2012. Accordingly, this site is assigned a risk rating of Low.

Site 21: Orlando World Center Marriott

Address: 8701 World Center Drive, Orlando, FL 32821-6358

Facility ID: 8627488

Database: Storage Tank Contamination Monitoring (STCM)

Summary: This site operates as a hotel and is located north of SR 536 to the west of SR 535. This facility currently maintains four ASTs; one 4,000-gallon tank, one 10,000-gallon tank for storing diesel fuel, one 1,500-gallon genset tank, and one 550-gallon tank for storing waste oil. According to the most recent Site Inspection Report dated May 9, 2023, the facility is in compliance. There is no history of contaminant release at this facility. For these reasons, this facility is assigned a risk rating of Low.

Site 22: Florida Midland Railroad

Address: Along east side of SR 535 from US 192 to northern project limits

Facility ID: N/A

SECTION 5 - POTENTIAL PROJECT IMPACTS

Database: N/A

Summary: This site is a former railroad that was constructed circa 1883. This railroad no longer exists. However, because modifications to SR 535 may include excavation within the former rail line, this site is assigned a risk rating of Medium.

6.0 CONCLUSIONS AND RECOMMENDATIONS

A total of 22 sites of potential contamination risk were identified, including 1 High Risk, 9 Medium Risk, and 12 Low Risk sites. Level II Contamination Assessment investigations are recommended where proposed dewatering or subsurface work (e.g., pole foundations, drainage features, soil excavation, etc.) would occur at or adjacent to any sites rated High or Medium Risk. If dewatering will be necessary during construction, a FDEP Dewatering Permit will be required. The contractor will be held responsible for ensuring compliance with any necessary dewatering permit(s). A dewatering plan will be necessary to avoid potential contamination plume exacerbation. All permits will be obtained in accordance with Federal, state, and local laws and regulations, and in coordination with the District Contamination Impact Coordinator.

7.0 REFERENCES

Efficient Transportation Decision Making (ETDM) Summary Report. 2020. Summary Report (Numbers 14457) and FDOT Environmental Screening Tool (EST). Available at:https://www.fdot.gov/environment/pubs/etdm/etdmmanual.shtm.

Florida Department of Environmental Protection Electronic Document Management System (OCULUS). 2021. Facility-Site ID, Search. Available at https://depedms.dep.state.fl.us/Oculus/servlet/login.

Florida Department of Environmental Protection Map Direct. 2021. Map Direct Gallery: Contamination Locator Map and Solid Waste Map. Available at https://ca.dep.state.fl.us/mapdirect/.

Florida Geographic Data Library. 2019. Geographic Information System (GIS) Layers. Available at: https://www.fgdl.org/download/index.html.

Google Earth Pro. 1994-2021. Panama City Beach, FL, USA. Last accessed September 9, 2021.

South Florida Water Management District (SFWMD). 2017. GIS & Mapping. Available at: https://geo-sfwmd.hub.arcgis.com.

Project Development and Environment Manual (PD&E Manual). 2023. Part 2, Chapter 20, Contamination. Available at: https://www.fdot.gov/environment/pubs/pdeman/pdeman1.shtm.

University of Florida Digital Collections (UFDC). 2021. Aerial Photography: Florida. Available at: http://ufdc.ufl.edu/aerials/all/table/2. Last accessed September 9, 2021.