

# **CONTAMINATION SCREENING EVALUATION TECHNICAL MEMORANDUM**

**S.R. 44 (EAST GULF TO LAKE HIGHWAY)  
From East of U.S. 41 (S.R. 45) to  
West of the Withlacoochee River Bridge  
Citrus County, Florida**

**State Project Numbers: 0250-1540/0250-1541  
Work Program Numbers: 7119002/7119003**

Prepared for:  
**Florida Department of Transportation  
District Seven  
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**April 1997**

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## **EXECUTIVE SUMMARY**

In accordance with the FDOT policy and the Federal Highway Administration (FHWA) requirements, a contamination screening evaluation has been performed to evaluate potential impacts of contaminated sites on the project. This technical memorandum has been prepared pursuant to the Federal Highway Administration's Technical Advisory T 6640.8A and the FDOT's Project Development and Environmental (PD&E) Manual, Part 2, Chapter 22. The objective of the contamination screening evaluation was to provide documented information and analyses to assist FDOT with design and right-of-way acquisition for the project.

Risk rankings were assigned after reviewing data obtained from on-site examinations of the parcels along the corridor, a review of historical land use, hazardous and petroleum site lists, and other pertinent information. Based on this approach, the level of risk was assigned where "None" represents the least potential for contamination to "High" which represents the most potential for encountering contamination. Ultimately, eighteen sites contiguous and/or adjacent to the corridor were screened for potential contamination as part of the PD&E process. Of the eighteen sites, seventeen were ranked "Low" to "None." One site, Fisherman's Restaurant was ranked as having a "Medium" potential for contamination. At this site, underground fuel storage tanks may be present and within or adjacent to the existing right-of-way, and a limited subsurface investigation is recommended.

# **SECTION 1**

## **1.1 INTRODUCTION**

The State of Florida Department of Transportation (FDOT) proposes to widen and resurface S.R. 44 (East Gulf to Lake Highway) between U.S. Hwy 41 (S.R. 45) and the Withlacoochee River Bridge. The project improvements are proposed to be built both within the existing right-of-way and on right-of-way acquired through whole or partial takes of properties. The project corridor is illustrated in Figure 1-1.

FDOT's concern is that construction activities may encounter petroleum, petroleum pollutants, hazardous or toxic substances within or adjacent to the right-of-way. This technical memorandum will identify properties along the existing alignment which:

- may have been involved in activities which may have produced a contaminated sites;
- are involved in activities which may produce contaminated sites; or
- are known to be contaminated sites.

## **1.2 PROJECT STUDY AREA**

The existing S.R. 44 between U.S. Hwy 41 and the west end of the Withlacoochee River Bridge consists of a two-lane undivided minor arterial with a predominant width of 24 feet. There are two signalized intersections located within the project corridor. The first is the S.R. 44/ U.S. 41 intersection and the second is the intersection of S.R. 44 with C.R. 470 North.

## **1.3 PROPOSED ACTION**

The recommended alignment for S.R. 44 consists of an urban typical section to be constructed to a point about 0.8 miles east of C.R. 470 North. This design will consist of 12 and 14 foot travel lanes in each direction separated by a 22 foot raised median and having two foot curb with gutters and five foot sidewalks on each side. From C.R. 470 North to the Withlacoochee River Bridge the roadway will transition to a rural typical section, with two 12 foot travel lanes and paved inside and outside shoulders in each direction, separated by a 46-foot median. Drainage for this rural section will consist of open ditches and water retention areas as needed.

## **1.4 ALTERNATIVE ALIGNMENTS**

Several alternatives to improve traffic operations in the study area were also evaluated. These alternatives considered variations of northern, southern and centered alignments for the roadway.

## **SECTION 2**

### **2.1 EXISTING LAND USES**

Land use in the vicinity of the S.R. 44/U.S. Hwy 41 intersection consists mostly of commercial and residential properties. As the corridor traverses the City limits to the intersection of C.R. 470 North, the development is primarily residential. From C.R. 470 North, east to South Little John Avenue, the corridor is bordered by forested and scrub shrub wetlands, and pasture land. Along the road frontage, pockets of residential properties dominate over commercial properties.

Land use east of South Little John Avenue to the Withlacoochee River Bridge is predominately undeveloped land. These lands are composed predominately of wetlands, with a scattering of upland forest, and pasture land. Several commercial properties are located near the eastern limit of the project in proximity to the bridge.

### **2.2 HISTORICAL AERIAL REVIEW**

Historical aerial photographs from 1966, 1979, 1981, 1988, 1992, and 1995 were reviewed for the project corridor and surrounding lands. In general land uses along the corridor have remained unchanged and development has been slow. Review of the 1966 aerial photographs reveals that the western end of the corridor is not yet developed. Property in the vicinity of the S.R. 44/U.S. Hwy 41 intersection appears to be cleared, but there are no structures visible on the parcels. The Seaboard Coastline Railroad is visible as is the Cypress Lodge. Several groves appear to be platted for residential development, and many other large groves appear to be active. Property in the vicinity of Hickory Hill is mostly treed, but roadways for development have been constructed and the East Cove and Eden Garden subdivisions are under construction. The property in the vicinity of S.R. 44-C.R. 470 intersection appears to be wooded land. Property in the vicinity of the Withlacoochee River is somewhat developed. Fisherman's Restaurant is seen on the aerials and the circular drive is apparent, but there is no indication of a fuel island or pump. The property in the vicinity of Wild Bills Airboats is cleared near the roadway, but there is no evidence of structures seen on the aerials. Riverside Lodge is also present.

Review of the 1979 aerial photographs shows that the western end of the corridor continues to develop. Two structures (Cox Lumber Building and a bank) are visible at the southeast corner of the S.R. 44-U.S. Hwy 41 intersection. The railroad is still visible and along the corridor the residential communities are beginning to be fully developed. A building is present on the property at the northwest and east corners of the C.R. 470 North - S.R. 44 intersection. The remainder of the corridor is described similarly as the 1966 review.

From 1979 until 1981 there was little change in the land use of the corridor. Review of the 1988 aerial photographs reveals that the railroad does not appear to be maintained. The property located at the intersection of S.R. 44-C.R. 470 appears to have a different configuration of structures, similar to the Pick Kwik facility presently located there. Review of the 1988 aerial photograph reveals the

possible appearance of fuel pumps at the Fisherman's Restaurant. The structures are located in the vicinity of the existing sign island. From 1988 until 1995 there is little change in the land use along the corridor.



## **SECTION 3**

### **3.1 HYDROGEOLOGIC FEATURES**

Citrus County is underlain by a surficial aquifer system and the deeper Floridan aquifer system. The surficial aquifer system is defined as a permeable hydrologic unit contiguous with the land surface. Quarternary Undifferentiated Pliocene-Pleistocene surficial sediments comprise the surficial aquifer system. The lower limit of the surficial aquifer system coincides with the top of the laterally extensive and vertically persistent beds of lower permeability.

The Floridan aquifer system is typically found at mean sea elevation in the vicinity of the project area, and from west to east extends to 250 to 1,500 feet below mean sea level, respectively. The deeper Floridan aquifer system flows among the limestones of Eocene Ocala Group and the Eocene Avon Limestone Formations.

### **3.2 SOILS**

Soils throughout the project corridor have been categorized by the United States Department of Agriculture (Soil Survey of Citrus County, Florida). The soils found within the study and surrounding areas include Basinger-Immokalee-EauGallie, a sandy soil and Terra Ceia-Okeelanta, a mucky soil. These soils are characterized as being nearly level, poorly and very poorly drained.

### **3.3 SURFACE WATER FEATURES**

Several water bodies are in close proximity to the study area. Cooter Pond, Henderson Lake, Tsala Apopka, and numerous wetlands are situated throughout the western portion of the study area. Numerous unnamed ponds/lakes, canals (both manmade and natural) and wetlands are also found throughout the central and eastern portion of the project corridor. The Withlacoochee River bounds the project corridor on its eastern limit.

### **3.4 TOPOGRAPHY**

The U.S.G.S quadrangle maps for Inverness and Panasoffkee were reviewed for this project. In general the topography along the corridor is nearly level with elevations ranging from 39 to 53 feet above mean sea level throughout the corridor. A topographic high of 73 feet is seen at the western limit of the S.R. 44 corridor.

## SECTION 4

### 4.1 METHODOLOGY

The purpose of the contamination screening was to identify petroleum and non-petroleum contamination sites within the project corridor that, through past or present use, could potentially impact the proposed pond sites.

Because certain chemical compounds are known to persist in the environment for years after their introduction, the corridor's development history was reviewed. Vacant, cleared lands and adjacent properties were also included in the contamination screening process. Adjacent properties are those which are not contiguous to the FDOT proposed right-of-way. Lands were viewed from a historical perspective to determine whether or not the property had been engaged in activities relating to petroleum pollutants or non-petroleum pollutants. Primary among the data sources were the R.L. Polk City Directories and historical aerial photographs. The aerial photographs provided visual evidence of past land uses for both the corridor and the surrounding areas to identify properties along the right-of-way which could be contaminated as a result of a previous land use. This information was combined with the findings of the historical occupant searches to aid in the evaluation of previous land uses.

A regulatory review of federal and state environmental records was conducted in March 1997. The records reviewed included information compiled by the United States Environmental Protection Agency (USEPA), the Florida Department of Environmental Protection (FDEP), and the Citrus County Department of Public Safety. Facility files were reviewed at Citrus County. Regulatory information was also queried through an on-line database system provided by Environmental Data Management, Inc. (EDM) of Largo, Florida. A copy of the baseline data search is attached in Appendix A.

Once the historical and regulatory screening of the project corridor was complete as outlined above, the site screening process including physical onsite inspections was performed. At these sites, trained personnel conducted a visual search for evidence of contamination. Site investigators looked for possible routes of migration for potential contaminants such as storm water drainage and retention features, excavation activities, and utilities. Photographs of "Low" and "Medium" ranked sites are provided in Appendix B.

After reviewing data obtained from on-site examinations of properties, a review of historical land use, hazardous site lists, and other pertinent information, a risk rating was assigned. Ultimately, risk represented the degree of suspected contamination or potential hazardous material or waste involvement on the site in which "None" represents no potential for contamination and "High" represent the greatest potential for contamination. Using the approach presented above, six facilities have been given a "Low" ranking, one facility was ranked as having a "Medium " potential for contamination and the remaining sites were ranked "None".

## SECTION 5

### 5.1 PROJECT IMPACTS

Findings developed through historical and regulatory searches and inspections of individual parcels by the assessment team are summarized in this section. The parcels discussed in this section are contiguous or adjacent to the existing right-of-way. Results of the environmental screening were factored into the “current on-site conditions” category of the risk analysis. The environmental screening evaluation has resulted in a “Medium” ranking for one facility, a “Low” ranking for six facilities and a “None” risk ranking for the remaining eleven facilities. Table 5-1 presents the risk rankings assigned to each site as a result of the contamination screening. Figure 1-1 shows the locations of the sites investigated for possible contamination impacts. Following is a brief description of facilities which have been involved in potential petroleum-related activities.

#### Site 1: Cox Lumber Company

This facility is located south of and adjacent to the project corridor at 315 South U.S. Hwy 41. The facility is registered with the FDEP (FID098503042). A tank closure was performed October 15, 1993 on a 1,000-gallon underground storage tank (UST) which contained unleaded gasoline. There was no soil contamination noted during the tank closure. As groundwater was not encountered 20 feet below land surface, a water sample was not taken for analysis. On January 10, 1994 a no further action status was granted to the facility. Due to the distance of the facility from the right-of-way and the limited involvement of the site with petroleum fuel and pollutants, no impacts are anticipated. Risk Ranking: None

#### Site 4: Cypress Lodge

This facility is located at 1025 East Gulf to Lake Highway. The facility maintains one 55-gallon above ground storage tank (AST) which contains unleaded gasoline. Due to the size and location of the AST, the facility is listed as non-regulated. A recent inspection by Citrus County reveals that the facility is in compliance. The AST is located adjacent to Cooper Lake down gradient of the road project. Should a leak or spill occur, the discharge would flow toward the lake. Risk Ranking: Low

#### Site 7: Maine-ly Antiques

This facility is located at 11259 South Elmwood Drive and consists of an antique shop and storage area. The facility is the former location of Citrus Marine, a boat maintenance and repair shop. The facility is not registered with FDEP as having storage tanks, but at one time, the facility maintained one 1,000-gallon UST which contained leaded gasoline. A tank closure was performed at the facility on May 27, 1992. Since there was no soil contamination noted in or around the tank cavity and no groundwater was encountered (therefore a water sample was not required), a no further action status was granted for Citrus Marine on October 27, 1992. Risk Ranking: Low

Site 8: Dave's Hickory Hill Body Shop

This facility is located at 8929 East Gulf to Lake Highway east of and adjacent to Maine-ly Antiques. The facility is listed as a conditionally exempt small quantity generator. There have been no complaints or violations noted by Citrus County inspectors for this facility. The facility maintains one spray paint bay and uses small quantities of auto paints, lacquers and solvents. Spent solvents are recycled off site. At the time of the site visit, the facility appeared to be clean and well maintained.

Risk Ranking: Low

Site 10: Pick Kwik Convenience Store #95/ Exxon

This facility is located at 9515 East Gulf to Lake Highway at the northwest corner of the S.R. 44 and C.R. 470 North intersection. The facility is registered with the FDEP (FID098503143) as maintaining three 10,000-gal USTs which contain unleaded gasoline. A discharge was reported on December 6, 1995. Initial remedial actions were performed on December 20, 1995. A no further action status was granted by Citrus County on March 12, 1996. Risk Ranking: Low

Site 14: Cliff's East Cove Auto Center

This facility is located at 10024 East Gulf to Lake Highway. The facility is listed as a conditionally exempt small quantity generator of hazardous wastes. The facility includes three work bays and an office. Hydraulic fluids are stored inside, and several 55-gallon drums of used oil are stored immediately north of the building. Numerous 1-gallon containers of antifreeze were stored outside on the parking lot. At the time of the site visit, the facility appeared to be clean and well maintained. There have been no complaints or violations noted by Citrus County inspectors for this facility. Risk Ranking: Low

Site 15: Jeanette's Beauty Salon and Hoffman's Airboats

Jeanette's Beauty Salon and Hoffman Airboats are both located at 755 South Little John Avenue. The property consists of two building's perpendicular to each other. Jeanette's operates out of the building which fronts along S.R. 44. The eastern portion of the building is used for storage for Hoffman's. Hoffman's Airboats is registered with the FDEP (FID099401500) as having one 550-gal UST which contains diesel fuel and one 2,000-gal UST which contained gasoline. A tank closure was performed on June 30, 1994. There was no soil or groundwater contamination noted in the tank cavities and a no further action status was granted by Citrus County on October 5, 1994. Presently Hoffman's provides for service and repair of airboats. Hydraulic Fluids, used oil, and solvents are used in small quantities. Housekeeping activities are questionable, but the work area is largely paved and is removed from the project corridor. Site runoff is to the canal adjacent to Hoffman's. Risk Ranking: Low

Site 16: Fisherman's Restaurant

Fisherman's Restaurant is located at 12311 East Gulf to Lake Highway and near the terminus of the project corridor. The property consists of a restaurant and cabins. A commercial sign island is located in front of the restaurant and is similar in style to pump islands from the 1960s. The current owner has managed the restaurant since the early 1990's, and she is not aware of any fuel-related activities being conducted on the property. Review of the city directories and the 1966 historical

aerial photograph did not indicate fuel-related activities having occurred on the property. However, review of the 1988 aerial photograph indicates that fuel pumps may have been present. The sign island is located about four meters from the existing right-of-way. If storage tanks are present in the vicinity of the sign, they could be within the proposed roadway. Site drainage is north toward the canal, but groundwater flow direction is unknown due to the high water table and close proximity of the site to the canals, the river, and wetlands. Due to the limited information available on this property, a Level II assessment is warranted. Risk Ranking: Medium

**INSERT**

**Table 1**

**Contamination Risk Rating of Potentially Contaminated Sites**

## **SECTION 6**

### **6.1 CONCLUSIONS AND RECOMMENDATIONS**

This contamination screening represents an appropriate inquiry and investigation of the sites within the project limits to determine the existence of contamination based on:

- Apparent possible on-site sources of contamination;
- Apparent possible neighboring sources of contamination;
- Regulatory data obtained from federal, state, and local agencies; and
- Review of available historic aerial photography.

Through the contamination screening evaluation, eleven sites received risk rankings of “None,” six sites were ranked as “Low, ” and one site, Fisherman’s Restaurant, was ranked as having a “Medium” potential for impacts to the construction project.

### **6.2 RECOMMENDATIONS**

It is possible that an abandoned fuel system exists at Fisherman’s Restaurant and may be located within or adjacent to the existing right-of-way. To be prudent, a geophysical investigation such as ground penetrating radar should be conducted in an effort to detect a buried underground storage tank that is not visible at the ground surface. Additionally, soil borings should be installed at twenty-foot intervals along the proposed right-of-way, and soil samples screened for the presence of petroleum hydrocarbons. The estimated cost for the Level II investigation is \$5,000.

## SECTION 7

### 7.1 REFERENCES

Environmental Data Management, Inc. March , 1997. EDM Report. Largo, Florida.

Hill-Donnelly Cross Reference Directory. January 1997. Brooksville-Crystal River-Dade City-Inverness, Florida.

R.L. Polk City Directory. 1994, 1989, 1984, 1979, 1974, & 1971. Inverness, Florida. R.L. Polk & Co. Publishers.

United States Geological Survey Quadrangle Map. 1954. Inverness, Florida.

Water Resources Atlas of Florida, Florida State University Publishers, 1984.



## APPENDIX A

### ENVIRONMENTAL DATA MANAGEMENT, INC. REPORT

APPENDIX B

SITE PHOTOGRAPHS

## APPENDIX C

### COPIES OF AGENCY FILES

Cox Lumber Company  
Cypress Lodge  
Pick Kwik #95  
Maine-ly Antiques (Former Citrus Marine Center)  
Hoffman Air Boats

## Cox Lumber Company

## Cypress Lodge

## Pick Kwik #95

**Maine-ly Antiques  
(Former Citrus Marine Center)**

## Hoffman Air Boats