FINAL

PHASE I
ENVIRONMENTAL SITE ASSESSMENT

Suburban Pump Station
Jefferson Parish, Louisiana

April 2007

Submitted to:
U.S. Army Corps of Engineers, New Orleans District
Hurricane Protection Office
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Suburban Pump Station
Jefferson Parish, Louisiana

EXECUTIVE SUMMARY

This Phase I Environmental Site Assessment (ESA) report was prepared to support the U.S. Army Corps of Engineers (USACE), New Orleans District (hereafter referred to as the User) construction of infrastructure and improvements to the Suburban Pump Station property (hereafter referred to as the subject property), owned by Jefferson Parish, Louisiana. The 4-acre parcel is located at the north end of the Suburban Canal adjacent to Lake Ponchartrain, at 4800 Lake Villa Drive, Metairie, Louisiana. The subject property is currently a developed site with an established drainage pump station and storage facilities.

This report was prepared and the site reconnaissance was conducted according to the American Society for Testing and Materials (ASTM) guidelines (ASTM E1527-05), which define good commercial and customary practices in the U.S. for conducting an environmental site assessment of a parcel of commercial real estate with respect to the range of contaminants within the scope of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 USC 9601) and petroleum products.

According to information gathered from document searches, interviews, and the site reconnaissance, Gulf South Research Corporation (GSRC) found no *recognized environmental conditions* related to operations of the pump station facility that may affect the subject property. A historic recognized environmental condition on the site, in the form of a previous diesel spill, no longer exists, and does not pose a business environmental risk to the subject property.

SIGNIFICANT ASSUMPTIONS

No significant assumptions were made regarding this assessment.

LIMITATIONS AND EXCEPTIONS OF ASSESSMENT

By contract agreement with the User, no title search or search of recorded property documents was conducted as part of this assessment.

USER RELIANCE

This report has been prepared by GSRC for the User. It is intended for the sole use by the User, and no other person or entity may use or rely on any such report for any purpose.

1.0 PURPOSE OF THE PHASE I ENVIRONMENTAL SITE ASSESSMENT

The purpose of this Phase I ESA is to identify, to the extent feasible pursuant to the processes described herein, *recognized environmental conditions* in connection with the subject property and to provide an opinion on: (1) indications that petroleum products or hazardous or toxic materials and/or waste exist, or have existed, on or adjacent to the subject property that could potentially have an adverse impact; (2) indications of possible contamination, based upon observable conditions and readily available and reviewed public records or information; (3) the possibility that violations of current environmental regulations have occurred, or are occurring, on the subject property; (4) the potential for spilled, leaked, or improperly handled hazardous substances or petroleum products to migrate to or from the subject property; and (5) the existence of unsafe or unhealthful conditions on the subject property.

1.1 BOUNDARIES OF THE PROPERTY AND SURVEY AREA

The subject property is located in Jefferson Parish (Figure 1) at 4800 Lake Villa Drive, Metairie, Louisiana adjacent to Lake Ponchartrain, as shown in Figures 2 and 3. A site plan was provided by the Jefferson Parish Department of Drainage. Global Positioning System (GPS) coordinates were taken in the field at the presumed property boundaries for comparison with the site plan and to geo-reference the site on historic maps and aerial photographs.

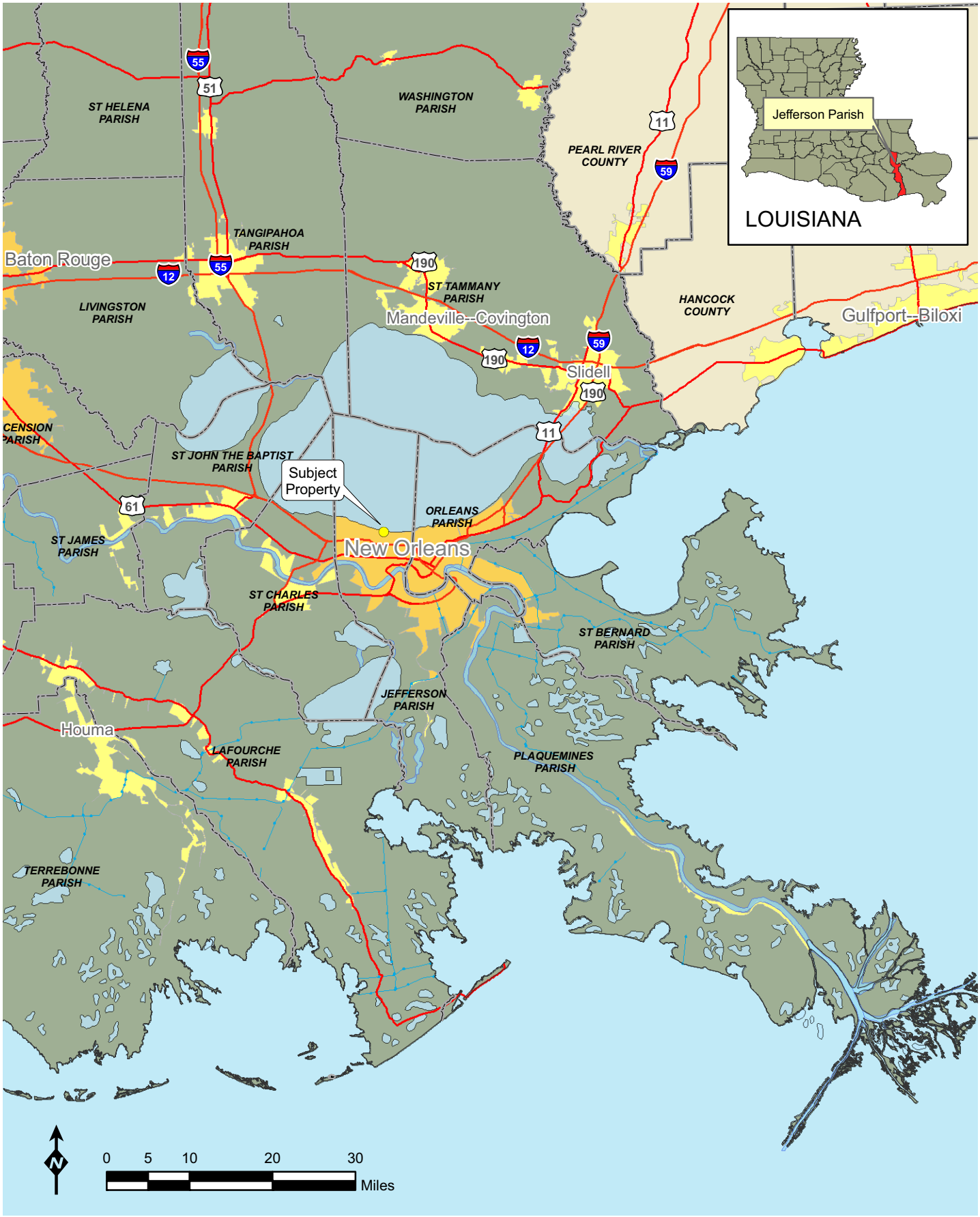

Figure 1: Vicinity Map

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Figure 2: Suburban Pump Station Location

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Figure 3: Suburban Pump Station Area

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2.0 SURVEY METHODOLOGY

2.1 APPROACH AND RATIONALE

This report was produced in accordance with the following:

> "The ASTM guidelines (ASTM E1527-05) which define good commercial and customary practices in the U.S. for conducting an environmental site assessment of a parcel of commercial real estate with respect to the range of contaminants within the scope of the CERCLA (42 USC 9601) and petroleum products. This practice is intended to permit a user to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on CERCLA liability; that is, the practice that constitutes all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice."

GSRC's scope of services for this project included four major components: (1) Federal, state, and local environmental records review, including a review of historical and physical setting records; (2) a site reconnaissance to search for visible indications of impacts or potential impacts to the environment or human health and safety; (3) interviews with key site personnel and local government officials; and (4) the preparation of this report. Following ASTM guidelines, the review of individual component items is subject to the "reasonable ascertainability" of that item.

The conditions disclosed by this investigation have been separated into the following categories of environmental conditions:

- *Recognized environmental condition* – A recognized environmental condition is defined in ASTM Practice E1527-05 as "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicated an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws."
- *Historical recognized environmental condition* – A historical recognized environmental condition is defined in ASTM Practice E1527-05 as an "environmental condition which in the past would have been considered a recognized environmental condition, but which may or may not be considered a recognized environmental condition currently. The final decision rests with the environmental professional and will be influenced by the current impact of the historical recognized environmental condition on the property. If a past release of any hazardous substances or petroleum products has occurred in connection

with the property and has been remediated, with such remediation accepted by the responsible regulatory agency (for example, as evidenced by the issuance of a no further action letter or equivalent), this condition shall be considered a historical recognized environmental condition."

- *De minimis condition* – A *de minimis condition* is defined in ASTM Practice E1527-05 as conditions "that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies."

The subject property parcel was accessible by vehicle and by foot. The site reconnaissance consisted of a thorough walk-through of the subject property, and the objective of the site reconnaissance was to obtain information indicating the likelihood of identifying any *recognized environmental conditions* in connection with the subject property. The term is not intended to include *de minimis conditions*. Observations were mainly focused on the subject property and any structures located on the subject property to the extent not obstructed by bodies of water, adjacent buildings, or other obstacles.

2.2 USER PROVIDED INFORMATION

2.2.1 Title Records

No title records were provided by the User. Past ownership of the subject property was verified by interviews with the property owner's representative.

2.2.2 Environmental Liens or Activity and Use Limitations

No environmental liens or activity and use limitations were reported by the User. No environmental liens or activity and use limitations were reported by the subject property owner. Since there have been no prior owners of the property, the current owner's statement is considered conclusive.

2.2.3 Specialized Knowledge

Historical and current knowledge of the subject property was provided by interviews with the subject property owner's representative.

2.2.4 Valuation Reduction for Environmental Issues

No valuation reduction for environmental issues was reported by the User or the subject property owner. Since the project property has been owned by the current owner since prior to

the first development of the property, and no sale of the property is pending, valuation reductions do not apply in this case.

2.3 LIMITATIONS AND EXCEPTIONS

The only limitation or exception made to the ASTM Practice E1527-05 was the lack of title records search or recorded document search for the subject property by contract agreement with the User. Interviews with the subject property owner were used to verify the past ownership of the property and the presence or absence of use limitations on the property.

2.4 DESCRIPTION OF DOCUMENTS REVIEWED

Federal and State Environmental Databases

GSRC contracted Environmental Data Resources (EDR) to search Federal and state environmental databases that track activities associated with hazardous waste and incidents that have resulted in major environmental impairment. These databases are prepared and maintained by various Federal and state environmental agencies such as the U.S. Environmental Protection Agency (EPA) and the Louisiana Department of Environmental Quality (LDEQ). The minimum appropriate search distance was 1 mile from the subject property's boundary. The EDR report showing all information pertaining to the database searches is presented in Volume II (I). A summary listing of the Federal and state databases searched can be found on pages 1 and 2 of the Executive Summary in the EDR report in Volume II (I). Descriptions of the type and currency of data in those databases can be found on pages GR-1 through GR-14 of the EDR report.

GSRC conducted searches on the LDEQ website and EPA databases via the Internet such as Enforcement and Compliance History Online (ECHO) and Envirofacts Warehouse. No information regarding additional environmental concerns, other than those reported by EDR, within or in the vicinity of the subject property was found in the Federal or state databases (LDEQ 2007 and EPA 2007).

The EDR report indicated that the subject property was listed in the Historic Leaking Underground Storage Tank (HIST LUST) and Underground Storage Tank (UST) databases as the location of a past fuel spill from an underground storage tank. The report noted that a diesel

spill was reported when the tank was removed, and soil contamination was involved. No closure or other remediation was indicated in the report. According to Mr. Manuel Aspuria, Jefferson Parish Department of Drainage superintendent, the tank was an above-ground tank that had underground gravity feed pipes, and the leak was discovered when the tank and piping were being removed in 1992. No contamination remains on the site, according to Mr. Aspuria.

EDR reported four sites/facilities that could not be accurately located and mapped (orphan sites) in the vicinity of the subject property. Ground reconnaissance revealed that none of the orphan sites is located within the minimum appropriate search radius of the subject property that may result in a business environmental risk to the subject property.

Sanborn Insurance Maps

No insurance map coverage was available for the subject property area.

City Directory Abstracts

In the Polk's City Directory, the subject property was listed on Lake Villa Drive in 1964 with no address given. All other addresses listed on Lake Villa Drive through 2006 were residences, with the exception of Louisiana Materials Company, which was listed from 1964 to 1969.

Historical Maps/Aerial Photographs

Historical topographic maps and aerial photographs provided by the User were used for this report, since they provided the most comprehensive coverage of the subject property. Historical quadrangle maps were available for years spanning 1936 to 1992. Historic aerial photographs were available from 1957 to 2005. These maps and photographs typically show any development or habitat changes over time. The historical topographic quadrangles and aerial photographs reviewed by GSRC are listed in Table 1 and are included in Appendix A.

2.5 SUBJECT PROPERTY INSPECTIONS/OBSERVATIONS

Photographs of the subject property parcels are presented in Appendix B, and the locations of photographs are shown in Figure 4. A site plan for the subject property is presented in Figure 5. A site reconnaissance was conducted on March 7, 2007 by Denise Ford and Greg Lacy. The focus of the effort was to investigate the subject property for evidence of potential hazardous or toxic substances, or the presence of potential sources for environmental impacts, such as

drums, petroleum products and USTs. The subject property was accessible by foot and by vehicle, and was visually inspected for any *recognized environmental conditions*. The subject property is currently being used for an active drainage pumping station by Jefferson Parish.

Table 1. Historical Topographic Quadrangles/Aerial Photographs Reviewed

DATE	QUADRANGLE/PHOTOGRAPH NAME	SCALE
1936	Spanish Fort, LA 15-Minute Quadrangle	1:62,500
1938	Indian Beach, LA 7.5-Minute Quadrangle	1:24,000
1952	Indian Beach, LA 7.5-Minute Quadrangle	1:24,000
1953	Spanish Fort, LA 7.5-Minute Quadrangle	1:24,000
1957	Aerial Photograph	---
1965	Indian Beach, LA 7.5-Minute Quadrangle	1:24,000
1967	Aerial Photograph	---
1992	Indian Beach, LA 7.5-Minute Quadrangle	1:24,000
1998	USGS DOQQ Aerial Photograph	1:24,000
2004	USGS DOQQ Aerial Photograph	1:24,000
2005	USGS DOQQ Aerial Photograph	1:24,000

Sources: U.S. Geological Survey, U. S. Army Corps of Engineers

The subject property consists of approximately 4 acres, as defined by GPS mapping of the observed property boundaries in the field. There is a pump station structure on the property, a warehouse and office building, and a temporary storage container (Connex box) (Photograph 4, Appendix B), and temporary fuel tanks for construction equipment (Photograph 3, Appendix B). According to the operator of the station, the storage container contains spare parts and equipment. The ground is relatively flat terrain covered with either gravel/shell, grass or concrete. All of the property appears to have been previously disturbed by construction or grading.

The main pump station facility is located at the north end of the Suburban Canal, and it discharges into the Lake Ponchartrain on the opposite side of the levee. The subject property is bordered on the south, east and west by residential subdivisions.

All of the new and used oil on the site is kept under cover in 55-gallon drums in the pump station building, and the drums are recycled by a licensed transporter. No containers of hazardous materials were observed open or exposed on the property. Several empty drums were noted outside (Photograph 11, Appendix B). There is a current Spill Prevention Control and Countermeasures (SPCC) plan kept on site, and a spill containment and cleanup kit is also stored on site.

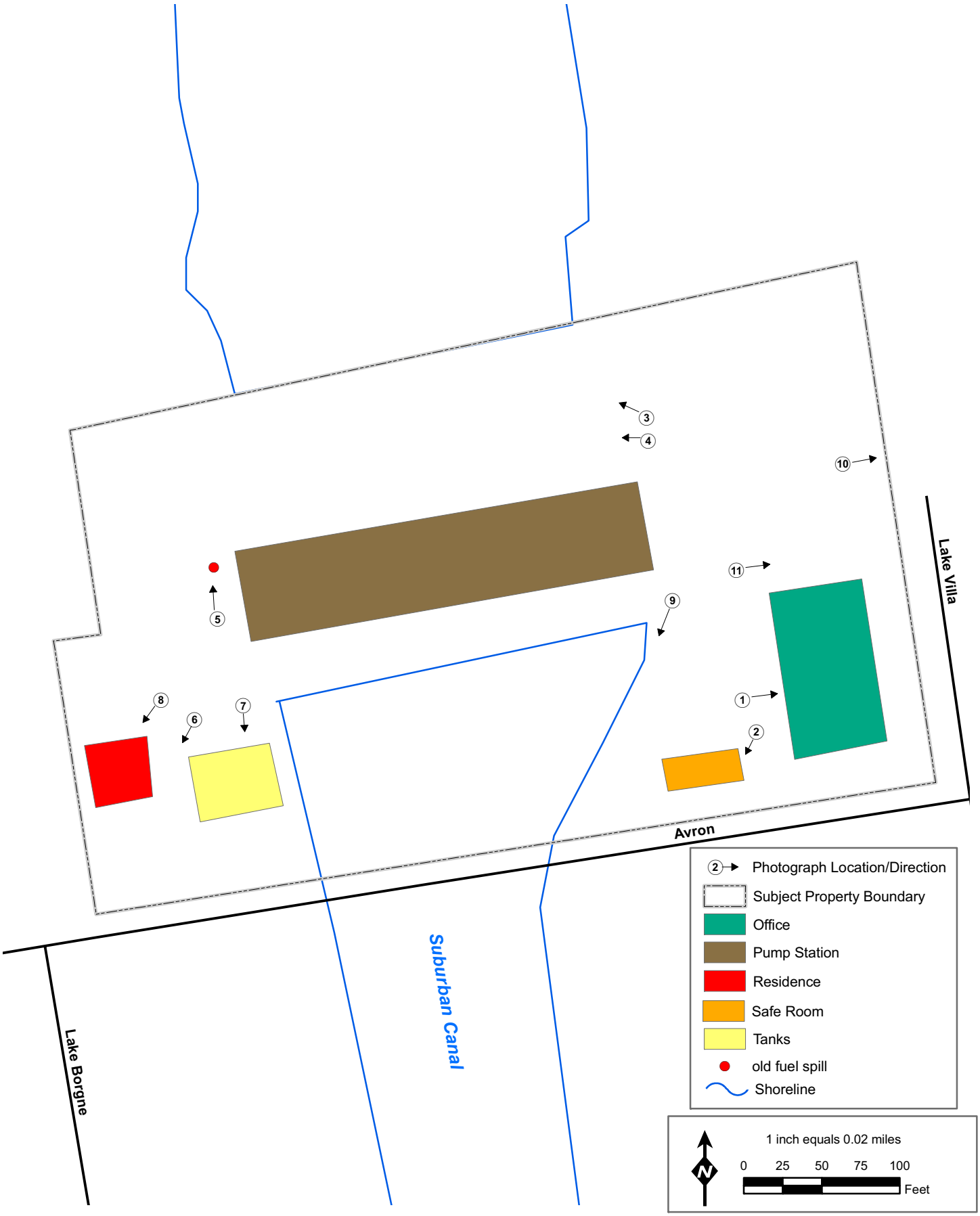

Figure 4: Survey Map of Suburban Pump Station

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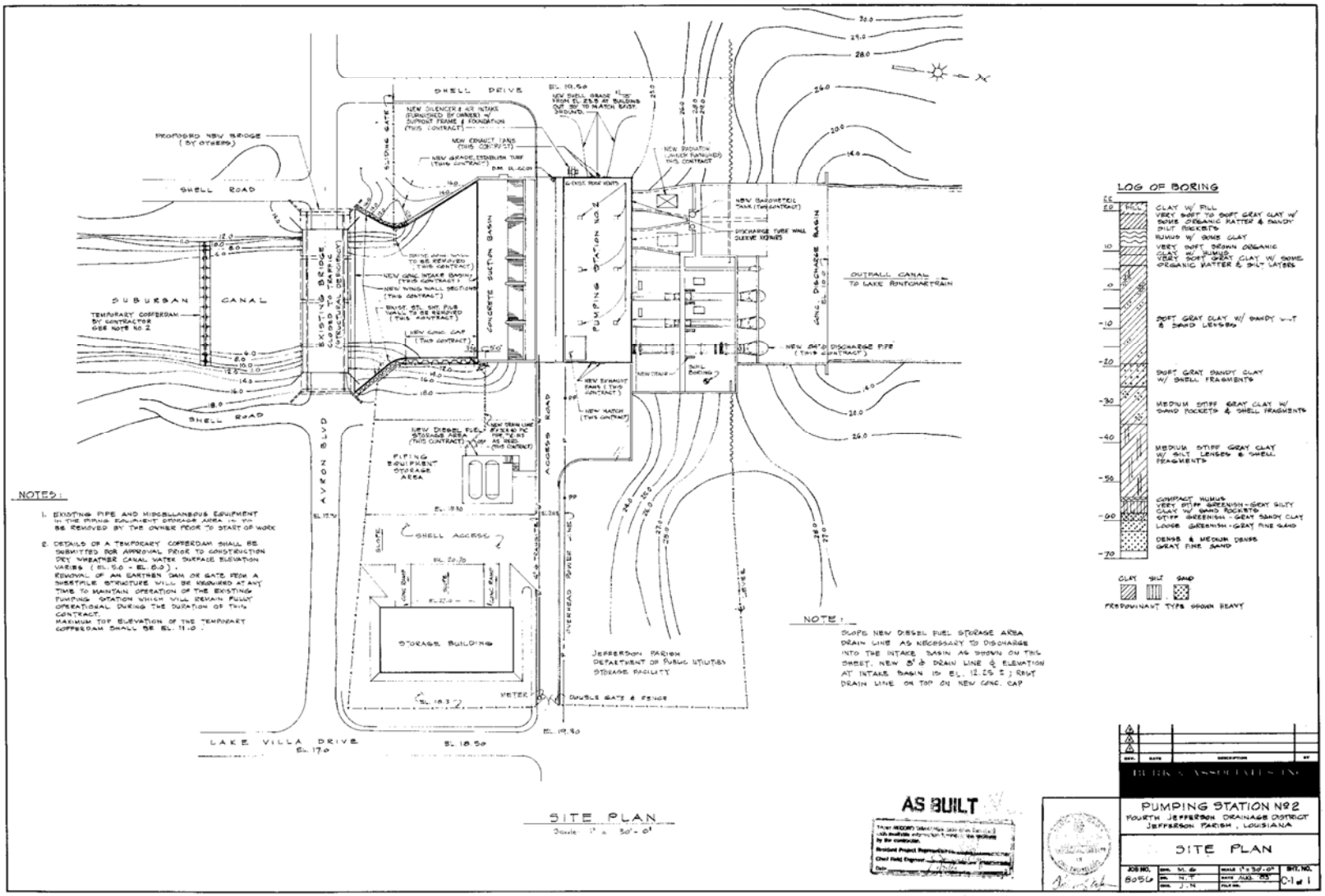

SITE PLAN

Figure 5: Suburban Pump Station Site Plan

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Diesel fuel for the station pump engines is contained in three horizontal storage tanks with a capacity of 16,000 gallons (Photograph 7, Appendix B), and the tanks have approved spill containment basin, as defined in the SPCC plan. Four diesel day tanks with combined capacity of 2,000 gallons are located inside the pump building, and two 1,000-gallon tanks are located on the pump house deck for the generators.

The pump station is currently on city water service for potable water, and waste water and sewage is routed to the parish sewage system for treatment. There is a water well on the property (Photograph 6, Appendix B), and it is used for emergency purposes for cooling water for the pump engines. A small transformer station on a concrete pad is located on the site (Photograph 5, Appendix B, in the background behind the red car), but there are no PCBs in the transformers.

There is a Connex storage container on the property used for equipment storage (Photograph 4, Appendix B). A safe room on the property for the protection of pump operators during hurricanes is fueled by two diesel tanks located on the ground under the safe room (Photograph 2, Appendix B). There is no containment around the two tanks under the safe room.

2.6 PERSONAL INTERVIEWS

Pump Station Superintendent

On March 7, 2007, GSRC interviewed the superintendent for all of the east bank pump stations, Mr. Manuel Aspuria, who has been with the Jefferson Parish Department of Drainage for approximately 20 years. He stated that the east bank stations were built between 1983 and 1985. He stated that there had been no oil or fuel spills on the Suburban property since the diesel spill when the old tanks were removed in 1992. His office is at the Suburban Station in the warehouse building. The station does not keep hazardous materials on site, other than maintenance paint in 5-gallon buckets or 1-gallon cans for the equipment. Used oil is recycled to waste drums, which are kept inside the station buildings, and then disposed of by a licensed transporter. SPCC plans are kept on site for all pump stations, as well as spill containment and cleanup kits. All of the east bank pump stations were constructed on undeveloped natural ground, and there are no use limitations or environmental restrictions on any of the properties.

Other Interviews

Because other historical data and information sources indicated no prior use other than the current use and no other ownership prior to the current owner, and no indications of recognized environmental conditions were identified from other reliable sources, no further interviews of local officials were deemed necessary to determine the existence of recognized environmental conditions on the subject property. State agency information requests regarding individual properties are typically referred to the state database for information, and that database was consulted.

3.0 FINDINGS FOR SUBJECT PROPERTY

3.1 HISTORIC USE

The documents reviewed by GSRC to determine historical land uses and potential environmental conditions associated with those uses regarding the subject property and surrounding areas are described in the paragraphs below.

Historic Topographic Quadrangles and Aerial Photographs

Historic topographic maps dated from 1936 to 1992 and aerial photographs dated from 1957 to 2005 (Appendix A) were inspected to identify structures and development on the subject property and surrounding properties. The first indication of development of the area around the subject property appeared on the 1936 topographic map, where the Pump Station No. 2 was indicated on the subject property. Several small structures (houses) were indicated approximately 0.5 mile to the east. The 1938 topographic map also indicated the pump station in place, and Clearview Parkway extended to the Lake Ponchartrain shoreline and joined a road parallel to the levee past the pump station.

The 1952 topographic map showed the same development as the 1938 map, and roads extended down both sides of the Suburban Canal to the pump station. The 1953 topographic map showed no change from 1952. The 1957 aerial photograph showed the old pump station in place at the end of the canal, and the adjacent flood protection levees, but no development was visible around it.

The 1965 topographic map showed numerous streets in place east and west of the pump station property, and numerous houses were present. The 1967 topographic map showed continued development of residences in the area around the subject property.

The 1992 topographic map showed all of the current streets in place, and the East Jefferson Hospital was indicated about 2,000 feet south of the subject property. The 1998 aerial photograph indicated the addition of the warehouse and office building to the site, and expansion of the pump station facilities. In the 2004 aerial photograph, the current diesel storage tanks were in place and the station layout was shown in its current configuration. The 2005 aerial photograph showed no change from 2004.

No indications of business environmental risk conditions were noted in the historical topographic maps or aerial photographs.

3.2 CURRENT USE

Environmental Setting

The subject property is located at 4800 Lake Villa Drive, at the north end of the Suburban Canal. The entire property appears to be disturbed, and the ground cover consists of maintained turf and shell/gravel surfaces. All of the adjacent waterways (canals) inside the levee appear manmade. The developed areas around the subject property to the south, east and west appear to be residential neighborhoods. A manmade earthen levee with concrete top walls separates the subject property from Lake Ponchartrain to the north. The land surface is generally flat, with a slight manmade slope to the south on the property.

According to the current topographic map, the elevation of the subject property is less than 5 feet above mean sea level, and the soil component within the subject property is the Kenner Muck, as indicated on the NRCS soil map for the area. This soil consists of poorly-drained mud that has low infiltration rates and is generally saturated to the soil surface in wetlands (NRCS 2007). The subject property has been extensively filled with other soil and materials, so the indicated soil component is no longer valid. Because no *recognized environmental conditions* were identified on or adjacent to the subject property, an analysis of the geology and hydrology of the site is not warranted.

3.3 HAZARDOUS MATERIALS/WASTES

No hazardous wastes were observed on the subject property. Hazardous materials, including paints, solvents and lubricating oil are stored under cover in the pump station building.

3.4 SOLID WASTE

No solid waste, other than miscellaneous trash was observed on the subject property.

3.5 OTHER ENVIRONMENTAL CONCERNS

According to the EDR report and from the search of Federal and state databases no environmental concerns for the following substances were within the appropriate search radii of the subject property:

- Oil/Water Separators
- Medical Biohazard Waste
- Ordnance
- Radioactive Wastes/Radon
- Wastewater Treatment, Collection, and Discharge
- Asbestos
- Transformers/Polychlorinated Biphenyls (PCBs)
- Lead-based Paint

A *historical recognized environmental condition* exists on the property due to the past history of leaking diesel fuel from tanks on the property in the 1990s. No contamination remains from those tanks, and the recognized environmental condition no longer exists. Transformers on the site do not contain PCBs.

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4.0 FINDINGS FOR ADJACENT PROPERTIES

4.1 LAND USES

GSRC inspected adjacent areas to the subject property with efforts concentrated on observing existing *recognized environmental conditions* with the potential to affect the subject property.

Adjacent property to the north across the levee is Lake Ponchartrain. Adjacent properties to the west, south and east are residential neighborhoods. In general, the land use surrounding the subject property can be classified as urban residential. No *recognized environmental conditions* were observed on any adjacent properties.

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5.0 APPLICABLE REGULATORY COMPLIANCE ISSUES

5.1 LIST OF COMPLIANCE ISSUES AND CORRECTIVE ACTIONS

According to the EDR report (Volume II, Section I) and information gathered from Internet searches, there are no outstanding violations or compliance issues regarding facilities/sites within the search radius surrounding the subject property.

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6.0 OPINIONS & CONCLUSIONS

We have performed a Phase I *Environmental Site Assessment* in conformance with the scope and limitations of ASTM Practice E1527-05 of the subject property. Any exceptions to, or deletions from, this practice are described in Section 7 of this report. This assessment revealed no evidence of *recognized environmental conditions* in connection with the subject property. The EDR report and searches from Federal and state databases yielded no information regarding other environmental conditions on or within the vicinity of the subject property. In addition, none of the orphan sites/facilities listed in the EDR report are located within an appropriate search distance from the subject property to constitute a business environmental risk.

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7.0 DEVIATIONS

No deletions or deviations from ASTM Practice E1527-05 were noted. The lack of a search for use limitations or environmental liens does not affect the subject property, since all indications from other reliable historic sources are that the property was undeveloped prior to construction of the current pump station on the property, and there have been no owners other than the current owner.

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8.0 RECOMMENDATIONS

No *recognized environmental conditions* were indicated on the subject property that would require further environmental studies or assessments

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9.0 CERTIFICATIONS

The opinions and conclusions set forth in this report, either expressed or implied, are based solely upon the work and information described herein. No soil, water, or air sampling and analysis were conducted for the subject property; therefore, no statement can be made as to their actual quality. Comments regarding the site reconnaissance and records research results are limited strictly to field observations and the actual records that were reviewed by GSRC. Any opinions concerning the likelihood that the subject property contains toxic or hazardous waste materials are intended solely as a probabilistic evaluation based upon such information. No warranty or guarantee is made or intended. Should any higher level of confidence be desired, physical sampling and laboratory analysis (Phase II of an ESA) would be necessary.

I declare that, to the best of my professional knowledge and belief, I meet the definition of an Environmental Professional as defined in §312.10 of 40 CFR 312, and I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed all of the appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Stephen Oivanki
Project Manager
GSRC

Signature 
Date April 23, 2007

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10.0 REFERENCES

EDR 2007, Suburban #2 P.S. 4800 Lake Villa Drive, Metairie, LA, EDR Radius Map with GeoCheck, I.N. 01870o98.22r, March 5, 2007

Environmental Protection Agency (EPA). 2007. Enforcement and Compliance History Online: http://www.epa.gov/echo/> ,and Envirofacts Data Warehouse: http://www.epa.gov/enviro/index_java.html

Louisiana Department of Environmental Quality (LDEQ). 2007. Enforcement Actions. October 2003 to March 2006. http://www.deq.louisiana.gov/portal/tabid/225/Default.aspx

Natural Resource Conservation Service (NRCS) Web Soil Survey 2007, http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

U.S. Army Corps of Engineers, New Orleans Division (USACE) 1957 aerial photograph

USACE 1967, aerial photograph

U.S. Geological Survey (USGS) 1936, Spanish Fort, Louisiana 15-minute Quadrangle

USGS 1938, Indian Beach, Louisiana 7.5-minute Quadrangle

USGS 1952, Indian Beach, Louisiana 7.5-minute Quadrangle

USGS 1953, Spanish Fort, Louisiana 7.5-minute Quadrangle

USGS 1965, Indian Beach, Louisiana 7.5-minute Quadrangle

USGS 1992, Indian Beach, Louisiana 7.5-minute Quadrangle

USGS 1998, DOQQ Aerial Photograph, 7.5 minute Quadrangle

USGS 2004, DOQQ Aerial Photograph, 7.5 minute Quadrangle

USGS 2005, DOQQ Aerial Photograph, 7.5 minute Quadrangle

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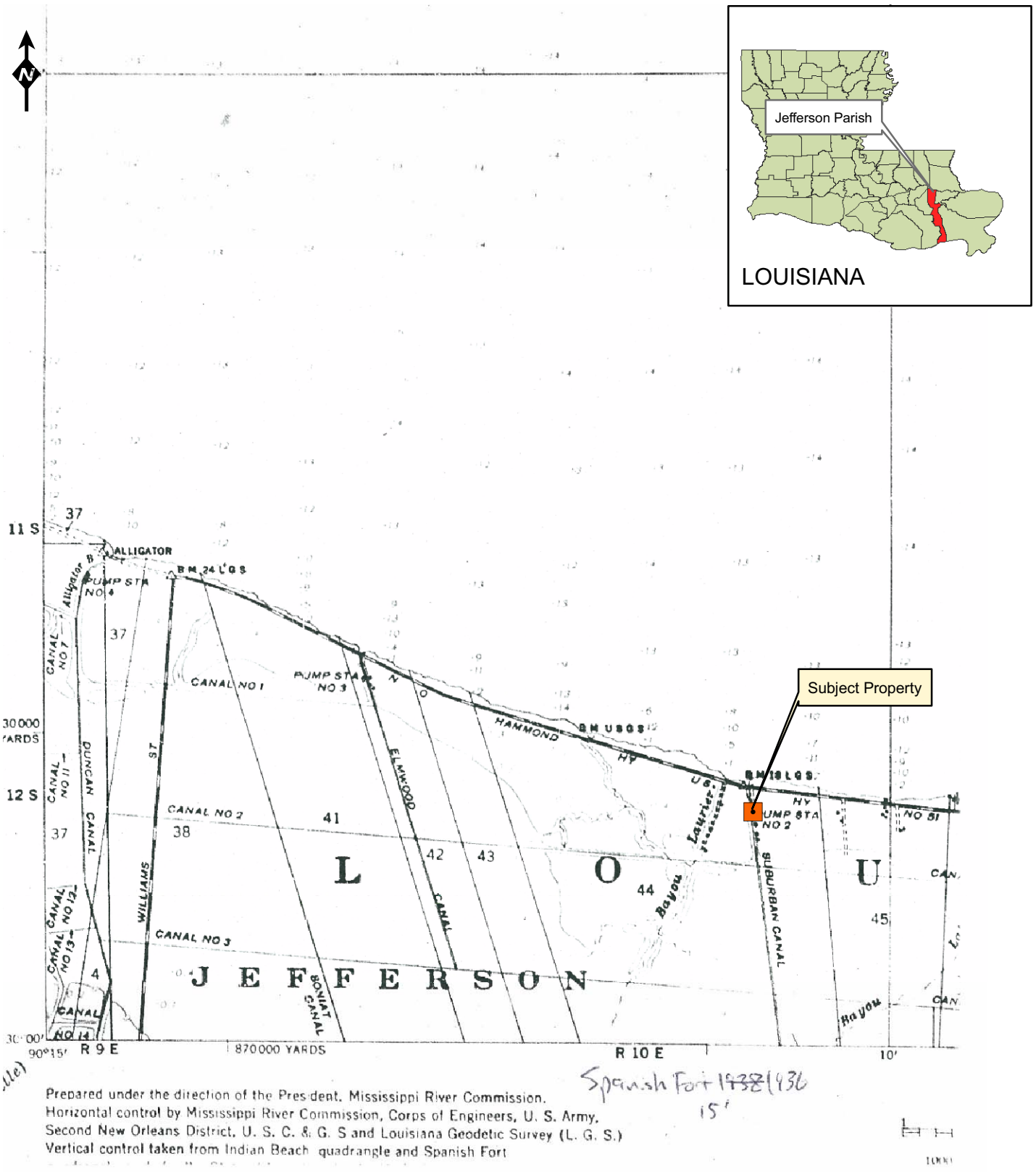
APPENDIX A
HISTORICAL TOPOGRAPHICAL MAPS AND AERIAL PHOTOGRAPHS



Suburban Pump Station
1936 Spanish Fort, LA 15 minute USGS Topographic Quadrangle

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Suburban Pump Station
1938 Indian Beach, LA 7.5 minute USGS Topographic Quadrangle

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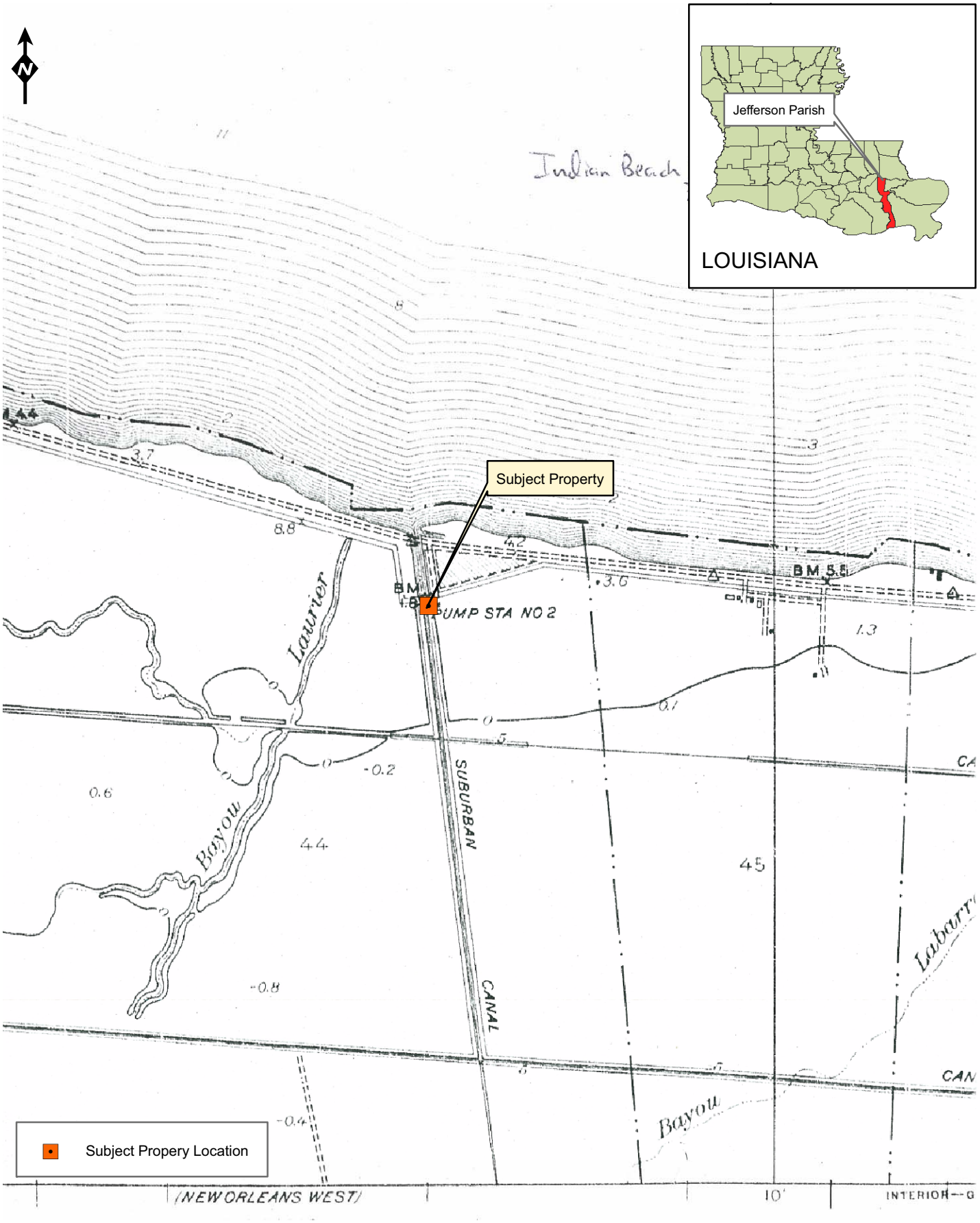

Suburban Pump Station
1952 Indian Beach, LA 7.5 minute USGS Topographic Quadrangle

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Suburban Pump Station
1953 Spanish Fort, LA 15 minute USGS Topographic Quadrangle

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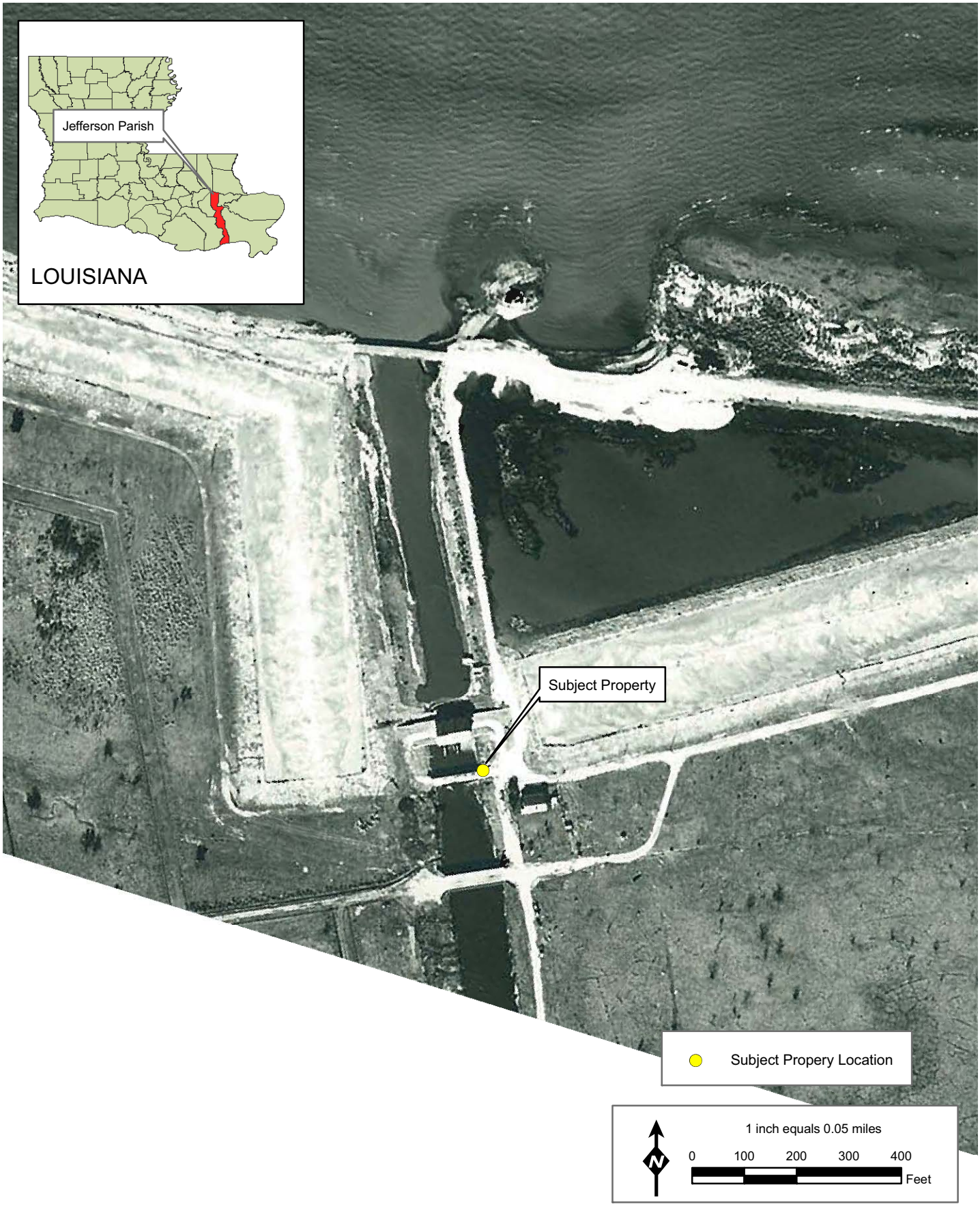

Suburban Pump Station
1957 Aerial Photography

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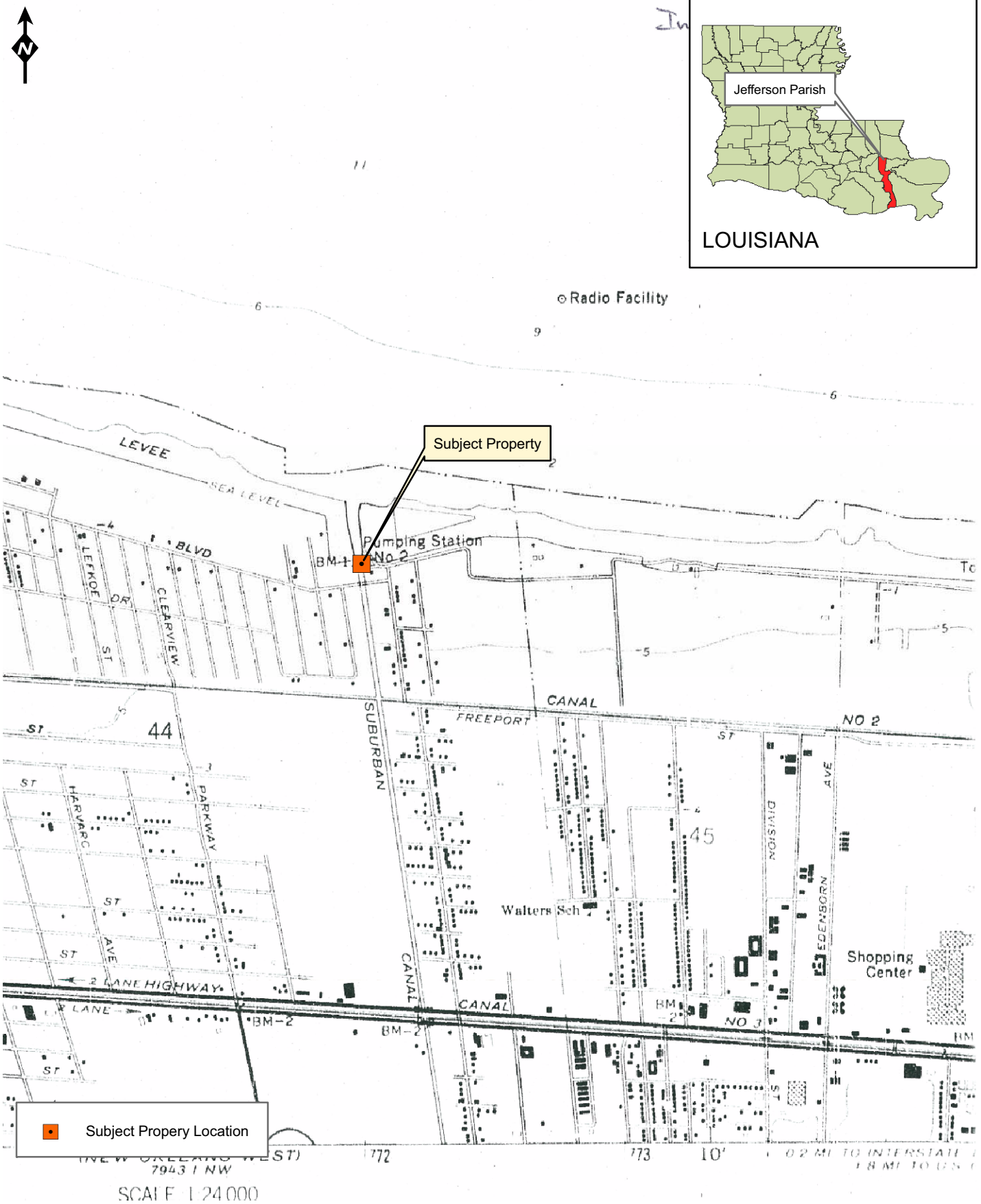

Suburban Pump Station
1965 Indian Beach, LA 7.5 minute USGS Topographic Quadrangle

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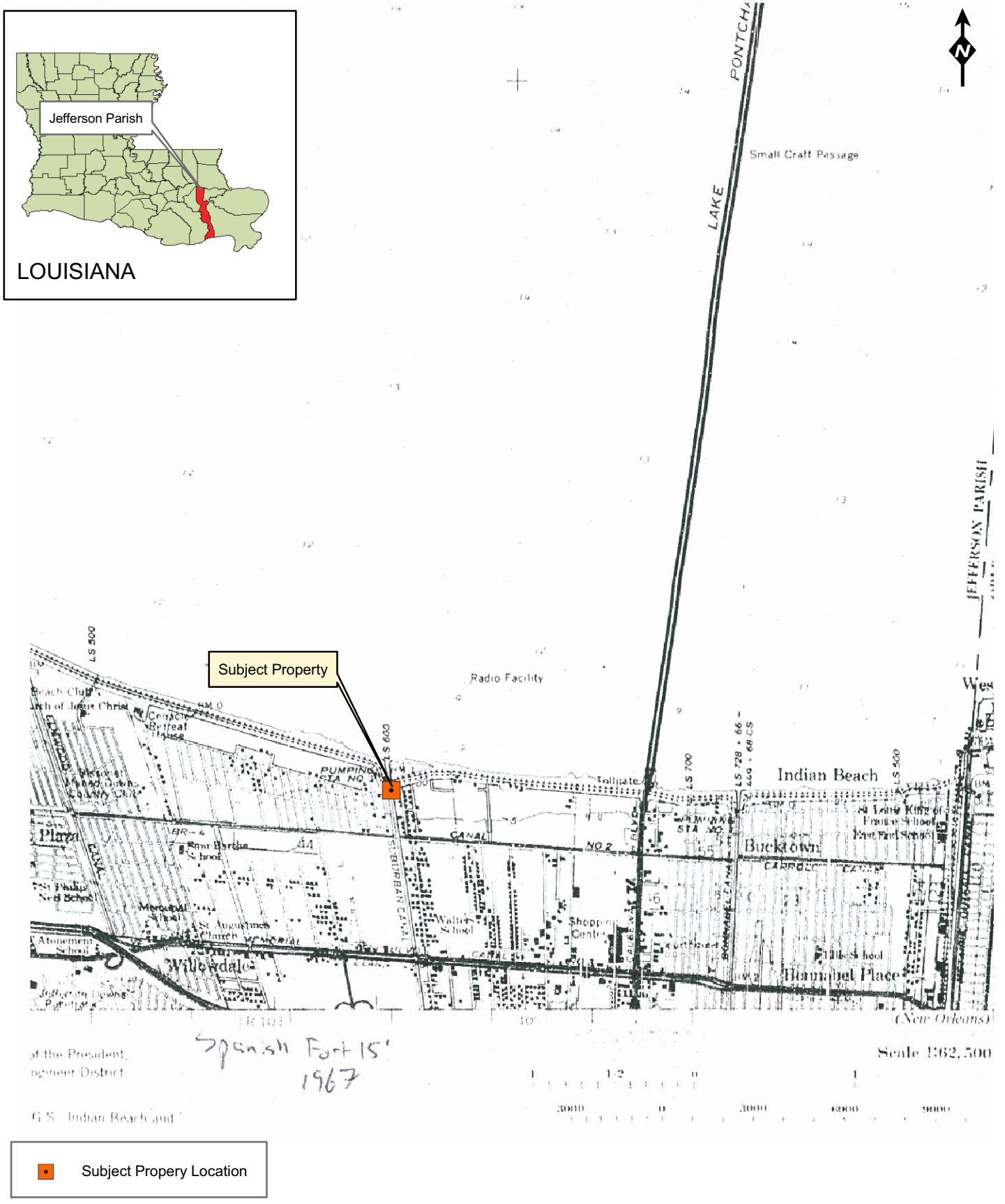

Suburban Pump Station
1967 Spanish Fort, LA 15 minute USGS Topographic Quadrangle

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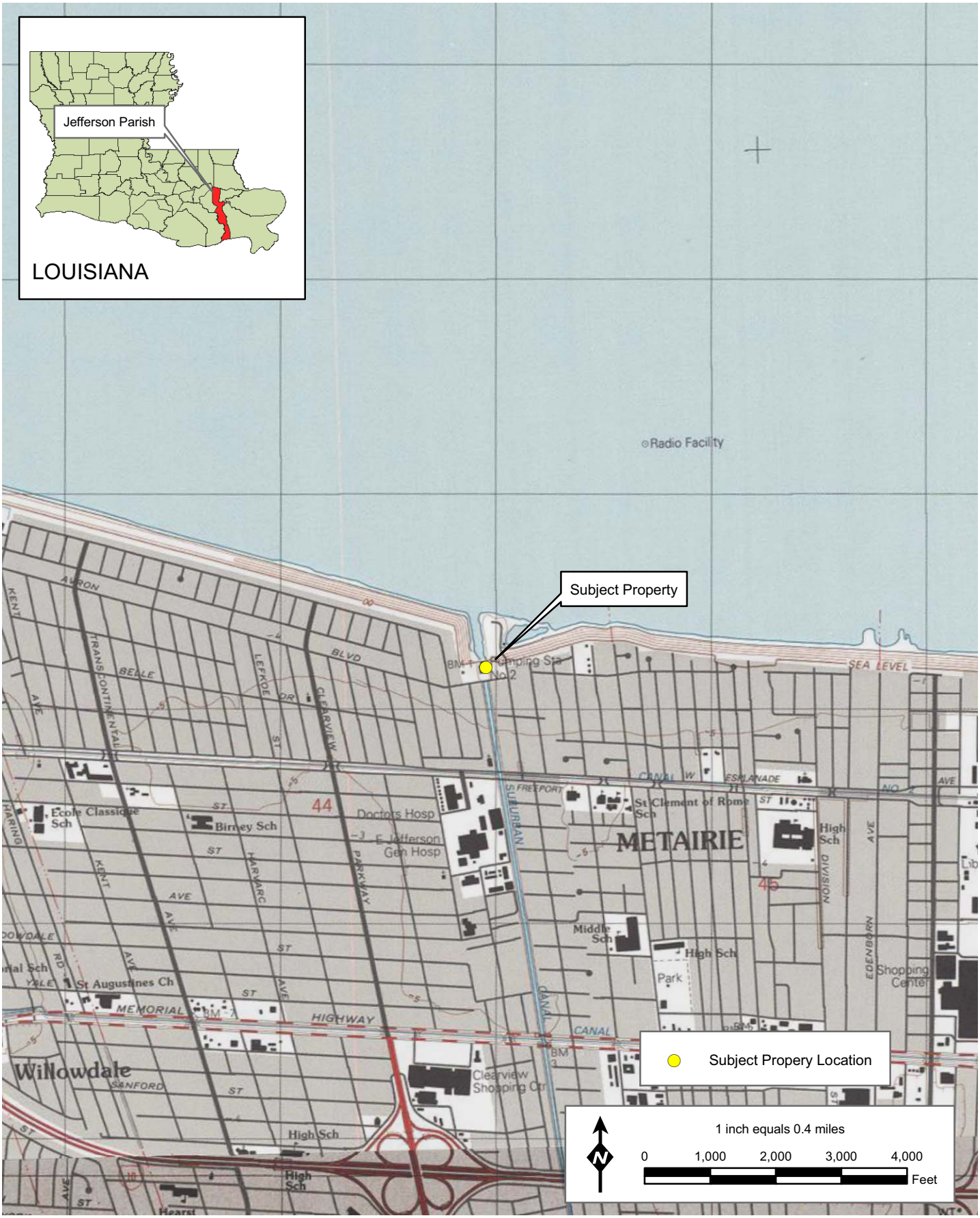

Suburban Pump Station
1992 Indian Beach, LA USGS Topographic Quadrangle

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Suburban Pump Station
1998 Indian Beach, LA USGS DOQQ

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Suburban Pump Station
2004 Indian Beach, LA USGS DOQQ

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Suburban Pump Station
2005 Indian Beach, LA USGS DOQQ

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APPENDIX B
SITE PHOTOGRAPHS

SITE PHOTOGRAPHS

Photograph 1. Warehouse and office structure on subject property

Photograph 2. Safe room and diesel storage tanks underneath

Photograph 3. Fuel tank in containment basin for levee repair equipment

Photograph 4. Connex container for equipment storage

Photograph 5. Historic LUST site on subject property

Photograph 6. Water well on subject property

Photograph 7. Diesel storage tanks and containment basin

Photograph 8. View of adjacent property to the west, resident operator house in foreground

Photograph 9. View of adjacent property to the south

Photograph 10. View of adjacent property to the east

Photograph 11. Empty 55-gallon drums on subject property

APPENDIX C
LIST OF PREPARERS

The following people were primarily responsible for preparing this report.

Name	Discipline/Expertise	Experience	Role In Preparing Report
Stephen Oivanki	Geologist Environmental Assessment	20 years of environmental assessment and remediation experience	Project manager, ESA preparation, field survey
Greg Lacy	Environmental Studies	10 years of environmental, natural resource, ESA, and NEPA studies	Field Survey
Denise Rousseau Ford	Environmental Engineering	15 years of environmental studies experience	Field Survey
Maria Reid	Forestry and Environmental Studies	5 years of environmental assessment and NEPA experience	Field Survey
Sharon Newman	GIS/Graphics	5 years GIS analysis	GIS and Graphics
David Alford	GIS/Graphics	4 years GIS/graphics experience	GIS and Graphics
Eric Webb, Ph.D.	Ecology/Wetlands	15 years NEPA and natural resources related studies	QA/QC

APPENDIX D
PERSONNEL QUALIFICATIONS

STEPHEN M. OIVANKI, P.G.
Qualified Environmental Professional (ASTM E1527-05)
Statement of Qualifications

Education: B.S. – Geology – Louisiana State University
M.S. – Geology – Louisiana State University

Training: HAZWOPER – 40-hour hazardous waste responder, current refresher
USACE 1997 Wetland Delineation Manual – 40-hour course
Mold Assessment and Remediation in Buildings – Training Course

Registrations: Registered Professional Geologist #412 – State of Mississippi

Experience: **Self-employed Consulting Geologist – 10 years**
Oil and gas exploration, subsurface site investigations, mining exploration, engineering geology

Mississippi Department of Environmental Quality – 9 years
Subsurface geology, subsurface site investigations, coastal geology and geomorphology

Mississippi Department of Marine Resources – 3 years
Coastal Zone Manager, supervision of environmental staff, oversight and review of Coastal Zone permits and environmental regulations

Compton Engineering, Inc. – 5.5 years
Phase I Environmental Site Assessments – 40
Phase II Environmental Site Assessments – 12
Emergency Response Action Contractor – Miss. LUST Trust Fund
LUST investigations and remediation – 5
Contaminated site investigations and remediation – 7
Wetland delineations – 50
Mold assessments and remediation supervision – 10
Spill Prevention Control and Countermeasure (SPCC) plans – 12
Rubbish and Subtitle D Landfill permits – 5
Storm Water Pollution Prevention Plans - 20

Gulf South Research Corporation – 6 months
Phase I Environmental Site Assessments - 13

GREGORY B. LACY
Qualified Environmental Professional (ASTM E1527-05)
Statement of Qualifications

Education: B.S.-Biology-Georgia Southwestern State University
M.S.-Biology-Georgia College and State University

Training: HAZWOPER-40-hour hazardous waste responder, current refresher.
HAZWOPER-8-hour Training for Supervisors
EPA Watershed Management - Training Certificate
Lead Supervisor - Training Course

Experience: **DDL Omni Engineering - 5 years**
Petroleum, oil, lubricant remediation, Chemical and biological decontaminations, Spill response, Hazardous waste management, Waste minimization.

Gulf South Research Corporation - 2 years
Phase I Environmental Site Assessments - 15

DENISE ROUSSEAU FORD
Qualified Environmental Professional
Statement of Qualifications

Education: M.S., Civil and Environmental Engineering, Louisiana State University
B.S., Geology, Louisiana State University

Training: HAZWOPER – 40-hour hazardous waste responder

Professional Organizations: Louisiana Brownfields Association (LBA) charter and founding member, 2006-2007 acting Executive Director

Experience: **Gulf South Research Corporation – 3 months**
Performs NEPA EA investigations and Phase I ESAs

Louisiana State University – 11 years
Preformed numerous technical reviews of Phase I and Phase II environmental site assessments, and cleanup action plans for non-profit organizations and municipalities involved in Brownfields transactions.

Performed technical reviews of various Superfund documents (including PAs, PA/SIs, RI/FSs and others) at sites in Corpus Christi, TX; Lake Charles, LA; Alsen, LA and other sites throughout EPA Region 6.

GDC Engineering – 3 years
Worked as an environmental geologist and project manger in the field of hazardous waste remediation. Specific projects included groundwater investigations at Deltech, in Baton Rouge, LA and DOW Chemical in Plaquemine, LA.

MARIA BERNARD REID
Environmental Professional
Statement of Qualifications

Education: B.S. – Forest Management – Louisiana State University
M.S. – Agricultural Economics and Agribusiness, Natural Resources Policy and Environmental Management and Planning – Louisiana State University

Training: HAZWOPER – 40-hour hazardous waste responder, current refresher
USFWS Endangered Species Act Section 7: Interagency Consultation Training – 40-hour course
Wetland Delineator Training – 40-hour course

Experience:

Soil and Water Conservation District: Washington County, Arkansas – 2 years
Beaver Lake/White River Water Quality Technician – Prepared nutrient management plans for area ranchers, and planned and implemented Best Management Practices for nutrient management and water quality and soil erosion protection.

Gulf Engineers and Consultants: Baton Rouge, Louisiana – 1.5 years
Environmental Scientist – Conducted wetland delineations and threatened and endangered species surveys and prepared NEPA documents.

Gulf South Research Corporation – 3 years
Natural Resources - Conducted wetland delineations, threatened and endangered species surveys, and environmental site assessments, and prepared NEPA documents.

APPENDIX E
CONTACT REPORTS

Phone Log/Contact Report

Project No.:	80600105s	Date: 03/07/07	Time: 10:30am
Project Name:	Jefferson Parish Stormproofing		
Employee:	Denise Rousseau Ford	Person Contacted:	Manuel C. Aspuria
Organization:	Jefferson Parish Dept. of Public Works	Telephone No.:	(504) 838-4373
Reason for Call/Topics Discussed:	Phase I property owner/operator interview – Suburban Station		
Copies to:	file		

Comments: I interviewed Mr. Manuel Aspuria, Jefferson Parish Public Works East Bank Superintendent about the property associated with the Suburban Pump Station while on-site at the station. He stated that the older part of the station was built in the 1980s, while the newer portion was built in 1999. Mr. Aspuria stated that the water well on-site is only for pump use, and in emergency circumstances it can be used for showering, but it is not ever used for drinking water purposes. He said that the wastewater from the station ties into Parish wastewater lines. He stated that all solid waste from the rakes or screens go to the Hwy 90 landfill in St. Charles Parish. He stated that no antifreeze is stored at this pump station. Solvent (varosol) and lubricating oil are stored in 55 gallon drums within the pump station. Generally each station stores approximately 1,000 gallons of assorted motor oils (in 55 gallon drums) within the pump facility. He reiterated that all pump stations have a spill prevention plan (binder with operator) and spill cleaning supplies and booms. Mr. Aspuria stated that there was an old historic LUST site where a tank and pipeline was left on-site on the west side of the property near the present pump station building. The tank was removed first, then later operators noticed an oily sheen on the surface of the soil. He stated that the accompanying pipeline for the tank had not been removed, and there was still product inside. He said that the contaminated soil was removed and sent off site around the mid 1990s. He did not recall any groundwater monitoring taking place during this timeframe. Mr. Aspuria stated that did not know of any other environmental contamination/issues or any violations, liens or lawsuits on the property, and expressed that, after the soil contamination was addressed, there were no other environmental concerns with the subject area. He also stated that there was no PCB in the transformers, and that there were no lead-based paint or asbestos concerns at the station.

Decisions/ Agreements Reached:

Action Items: Information added to the Phase I report.

FINAL

PHASE I
ENVIRONMENTAL SITE ASSESSMENT

Westminster Pump Station
Jefferson Parish, Louisiana

April 2007

Submitted to:
U.S. Army Corps of Engineers, New Orleans District
Hurricane Protection Office
7400 Leake Avenue
New Orleans, LA 70118

Submitted by:
Gulf South Research Corporation
8081 GSRI Avenue
Baton Rouge, LA 70820

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PHASE I ENVIRONMENTAL SITE ASSESSMENT
Westminster Pump Station
Jefferson Parish, Louisiana

EXECUTIVE SUMMARY

This Phase I Environmental Site Assessment (ESA) report was prepared to support the U.S. Army Corps of Engineers (USACE), New Orleans District (hereafter referred to as the User) construction of infrastructure and improvements to the Westminster Pump Station property (hereafter referred to as the subject property), owned by Jefferson Parish, Louisiana. The 2.5-acre subject property is located at the south end of a shell access road, south of Westminster Drive in Marrero, Louisiana. The subject property is currently a developed site with an established drainage pump station and storage facilities.

This report was prepared and the site reconnaissance was conducted according to the American Society for Testing and Materials (ASTM) guidelines (ASTM E1527-05), which define good commercial and customary practices in the U.S. for conducting an environmental site assessment of a parcel of commercial real estate with respect to the range of contaminants within the scope of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 USC 9601) and petroleum products.

According to information gathered from document searches, interviews, and the site reconnaissance, Gulf South Research Corporation (GSRC) found no *recognized environmental conditions* related to operations of the pump station facility that may affect the subject property.

SIGNIFICANT ASSUMPTIONS

No significant assumptions were made regarding this assessment.

LIMITATIONS AND EXCEPTIONS OF ASSESSMENT

By contract agreement with the User, no title search or search of recorded property documents was conducted as part of this assessment.

USER RELIANCE

This report has been prepared by GSRC for the User. It is intended for the sole use by the User, and no other person or entity may use or rely on any such report for any purpose.

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1.0 PURPOSE OF THE PHASE I ENVIRONMENTAL SITE ASSESSMENT

The purpose of this Phase I ESA is to identify, to the extent feasible pursuant to the processes described herein, *recognized environmental conditions* in connection with the subject property and to provide an opinion on: (1) indications that petroleum products or hazardous or toxic materials and/or waste exist, or have existed, on or adjacent to the subject property that could potentially have an adverse impact; (2) indications of possible contamination, based upon observable conditions and readily available and reviewed public records or information; (3) the possibility that violations of current environmental regulations have occurred, or are occurring, on the subject property; (4) the potential for spilled, leaked, or improperly handled hazardous substances or petroleum products to migrate to or from the subject property; and (5) the existence of unsafe or unhealthful conditions on the subject property.

1.1 BOUNDARIES OF THE PROPERTY AND SURVEY AREA

The subject property is located in Jefferson Parish (Figure 1) south of the west end of Westminster Drive, Marrero, Louisiana, adjacent to an unnamed canal, as shown in Figures 2 and 3. A site plan was provided by the Jefferson Parish Department of Drainage. Global Positioning System (GPS) coordinates were taken in the field at the presumed property boundaries for comparison with the site plan and to geo-reference the site on historic maps and aerial photographs.

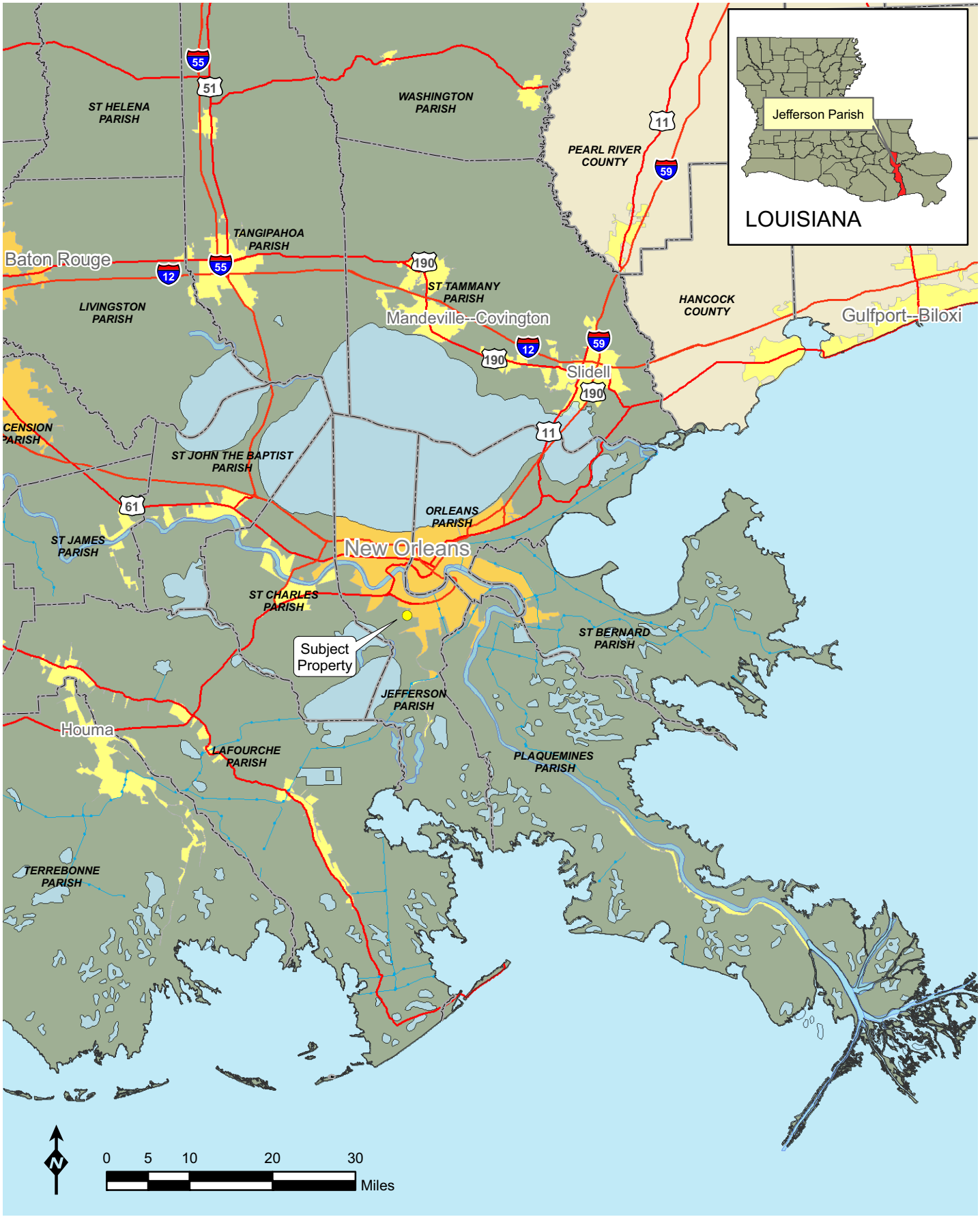

Figure 1: Vicinity Map

March 2007

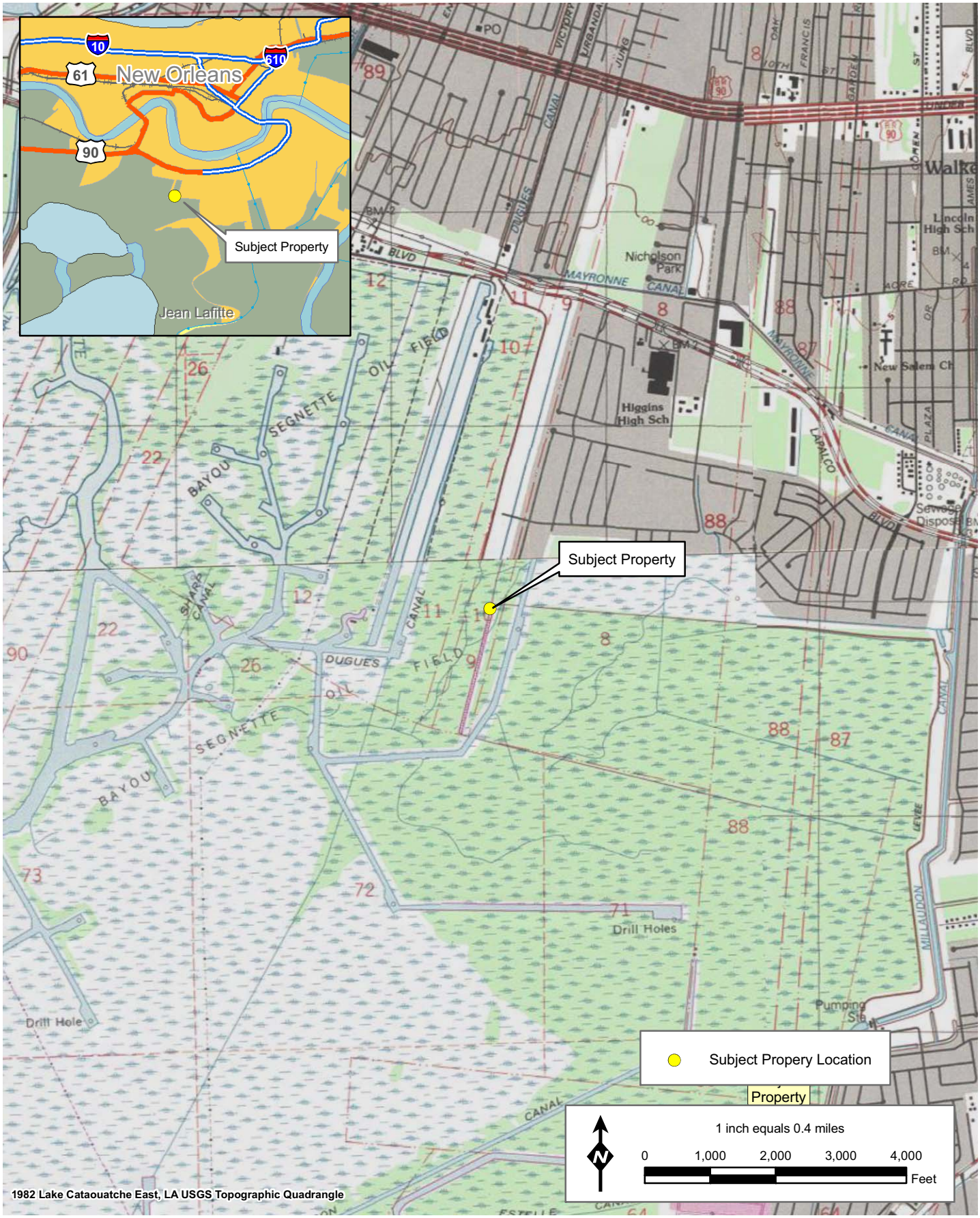

Figure 2: Westminster Pump Station Location

GSRC

March 2007

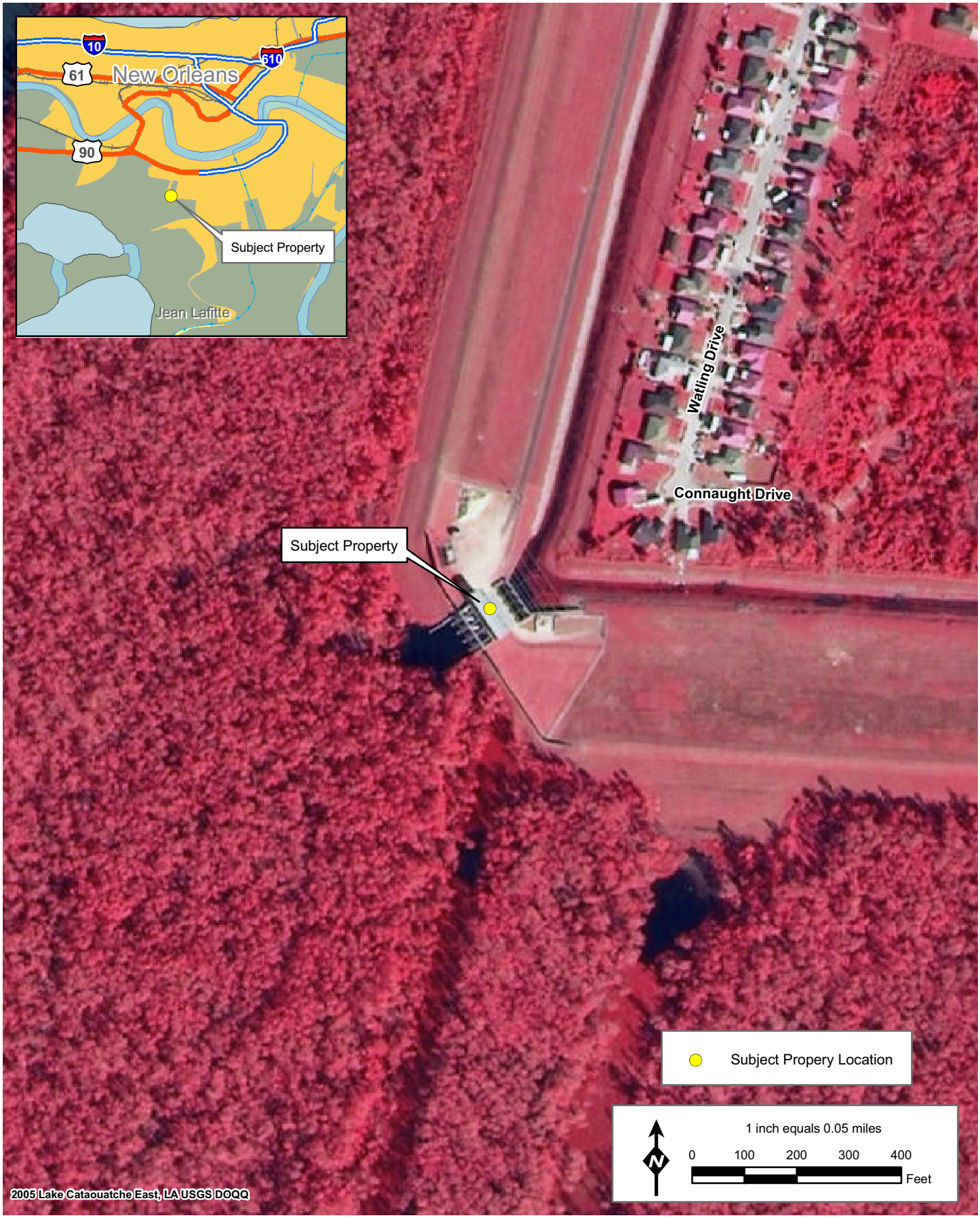

Figure 3: Westminster Pump Station Area

GSRC

March 2007

2.0 SURVEY METHODOLOGY

2.1 APPROACH AND RATIONALE

This report was produced in accordance with the following:

> "The ASTM guidelines (ASTM E1527-05) which define good commercial and customary practices in the U.S. for conducting an environmental site assessment of a parcel of commercial real estate with respect to the range of contaminants within the scope of the CERCLA (42 USC 9601). This practice is intended to permit a user to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on CERCLA liability; that is, the practice that constitutes all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice."

GSRC's scope of services for this project included four major components: (1) Federal, state, and local environmental records review, including a review of historical and physical setting records; (2) a site reconnaissance to search for visible indications of impacts or potential impacts to the environment or human health and safety; (3) interviews with key site personnel and local government officials; and (4) the preparation of this report. Following ASTM guidelines, the review of individual component items is subject to the "reasonable ascertainability" of that item.

The conditions disclosed by this investigation have been separated into the following categories of environmental conditions:

- *Recognized environmental condition* – A recognized environmental condition is defined in ASTM Practice E1527-05 as "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicated an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws."
- *Historical recognized environmental condition* – A historical recognized environmental condition is defined in ASTM Practice E1527-05 as an "environmental condition which in the past would have been considered a recognized environmental condition, but which may or may not be considered a recognized environmental condition currently. The final decision rests with the environmental professional and will be influenced by the current impact of the historical recognized environmental condition on the property. If a past release of any hazardous substances or petroleum products has occurred in connection

with the property and has been remediated, with such remediation accepted by the responsible regulatory agency (for example, as evidenced by the issuance of a no further action letter or equivalent), this condition shall be considered a historical recognized environmental condition."

- *De minimis condition* – A *de minimis condition* is defined in ASTM Practice E1527-05 as conditions "that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies."

The subject property parcel was accessible by vehicle and by foot. The site reconnaissance consisted of a thorough walk-through of the subject property, and the objective of the site reconnaissance was to obtain information indicating the likelihood of identifying any *recognized environmental conditions* in connection with the subject property. The term is not intended to include *de minimis conditions*. Observations were mainly focused on the subject property and any structures located on the subject property to the extent not obstructed by bodies of water, adjacent buildings, or other obstacles.

2.2 USER PROVIDED INFORMATION

2.2.1 Title Records

No title records were provided by the User. Past ownership of the subject property was verified by interviews with the property owner's representative.

2.2.2 Environmental Liens or Activity and Use Limitations

No environmental liens or activity and use limitations were reported by the User. No environmental liens or activity and use limitations were reported by the subject property owner. Since there have been no prior owners of the property, the current owner's statement is considered conclusive.

2.2.3 Specialized Knowledge

Historical and current knowledge of the subject property was provided by interviews with the subject property owner's representative.

2.2.4 Valuation Reduction for Environmental Issues

No valuation reduction for environmental issues was reported by the User or the subject property owner. Since the subject property has been owned by the current owner since prior to

the first development of the property, and no sale of the property is pending, valuation reductions do not apply in this case.

2.3 LIMITATIONS AND EXCEPTIONS

The only limitation or exception made to the ASTM Practice E1527-05 was the lack of title records search or recorded document search for the subject property by contract agreement with the User. Interviews with the subject property owner were used to verify the past ownership of the property and the presence or absence of use limitations on the property.

2.4 DESCRIPTION OF DOCUMENTS REVIEWED

Federal and State Databases

GSRC contracted Environmental Data Resources (EDR) to search Federal and state environmental databases that track activities associated with hazardous waste and incidents that have resulted in major environmental impairment. These databases are prepared and maintained by various Federal and state environmental agencies such as the U.S. Environmental Protection Agency (EPA) and the Louisiana Department of Environmental Quality (LDEQ). The minimum appropriate search distance was 1 mile from the subject property's boundary. The EDR corridor report for the Ames to Westminster Pump Stations, showing all information pertaining to the database searches, is presented in Volume II (A). A summary listing of the Federal and state databases searched can be found on pages 1 and 2 of the Executive Summary in the EDR report in Volume II (A). Descriptions of the type and currency of data in those databases can be found on pages GR-1 through GR-14 of the EDR report.

GSRC conducted searches on the LDEQ website and EPA databases via the Internet such as Enforcement and Compliance History Online (ECHO) and Envirofacts Warehouse. No information regarding additional environmental concerns, other than those reported by EDR, within or in the vicinity of the subject property was found in the Federal or state databases (LDEQ 2007 and EPA 2007).

The EDR report indicates that there are two sites/facilities recorded from the Historic Leaking Underground Storage Tank (HIST LUST) database search within the search radii that may have

or have generated, stored, treated, and/or disposed of solid or hazardous waste within or near the subject property. Both of these sites were determined by ground reconnaissance to be beyond a distance that would pose a business environmental risk to the subject property.

The EDR report indicates that there are three sites/facilities recorded from the Underground Storage Tank (UST) database search within the search radii that may have or have generated, stored, treated, and/or disposed of solid or hazardous waste within or near the subject property. All of these sites were determined by ground reconnaissance to be beyond a distance that would pose a business environmental risk to the subject property.

EDR reported 42 sites/facilities that could not be accurately located and mapped (orphan sites) in the vicinity of the subject property. Ground reconnaissance revealed that none of the orphan sites is located within the minimum appropriate search radius of the subject property that may result in a business environmental risk to the subject property.

Sanborn Insurance Maps

No insurance map coverage was available for the subject property area.

Historical Maps/Aerial Photographs

Historical topographic maps and aerial photographs provided by the User were used for this report, since they provided the most comprehensive coverage of the subject property. Historical quadrangle maps were available for years spanning 1891 to 1982. Historic aerial photographs were available from 1963 to 2005. These maps and photographs typically show any development or habitat changes over time. The historical topographic quadrangles and aerial photographs reviewed by GSRC are listed in Table 1 and are included in Appendix A.

2.5 SUBJECT PROPERTY INSPECTIONS/OBSERVATIONS

Photographs of the subject property are presented in Appendix B, and the locations of photographs are shown in Figure 4. A site plan for the subject property is provided in Figure 5. A site reconnaissance was conducted on March 7, 2007 by Maria Reid. The focus of the effort was to investigate the subject property for evidence of potential hazardous or toxic substances, or the presence of potential sources for environmental impacts, such as drums, petroleum products and USTs. The subject property was accessible by foot and by vehicle, and was

visually inspected for any *recognized environmental conditions*. The subject property is currently being used for an active drainage pumping station by Jefferson Parish.

Table 1. Historical Topographic Quadrangles/Aerial Photographs Reviewed

DATE	QUADRANGLE/PHOTOGRAPH NAME	SCALE
1891	New Orleans, LA 15-Minute Quadrangle	1:62,500
1938	New Orleans West, LA 7.5-Minute Quadrangle	1:24,000
1950	New Orleans, LA 15-Minute Quadrangle	1:62,500
1951	New Orleans West, LA 7.5-Minute Quadrangle	1:24,000
1954	New Orleans, LA 15-Minute Quadrangle	1:62,500
1963	Aerial Photograph	---
1967	New Orleans, LA 15-Minute Quadrangle	1:64,000
1977	Aerial Photograph	---
1982	Lake Cataouatche East, LA 7.5-Minute Quadrangle	1:24,000
1990	Aerial Photograph	---
1998	USGS DOQQ Aerial Photograph	1:24,000
2004	USGS DOQQ Aerial Photograph	1:24,000
2005	USGS DOQQ Aerial Photograph	1:24,000

Sources: U.S. Geological Survey, U. S. Army Corps of Engineers

The subject property consists of approximately 2.5 acres, as defined by a GPS survey of the observed property boundaries in the field. There is a pump station structure on the property, two office trailers, and a temporary storage container (Connex box) (Photograph 4, Appendix B). According to the operator of the station, the container contains spare parts and equipment being used for construction of the levee sheet wall. The ground is relatively flat terrain covered with either gravel/shell, grass or concrete. All of the property appears to have been previously disturbed by construction or grading.

The main pump station facility is located at the southwest corner of the drainage canals, and it discharges into an unnamed canal on the opposite side of the levee. The subject property is bordered on the south and west by undeveloped swamp and bottomland hardwood forest. It is bordered on the east and north by developed residential subdivisions.

There was one area of stained soil and dead vegetation on the site, indicating a past spill (Photograph 2, Appendix B). A pile of old tires was observed on the property (Photograph 5, Appendix B), as well as empty and full lubricant buckets on a containment basin.

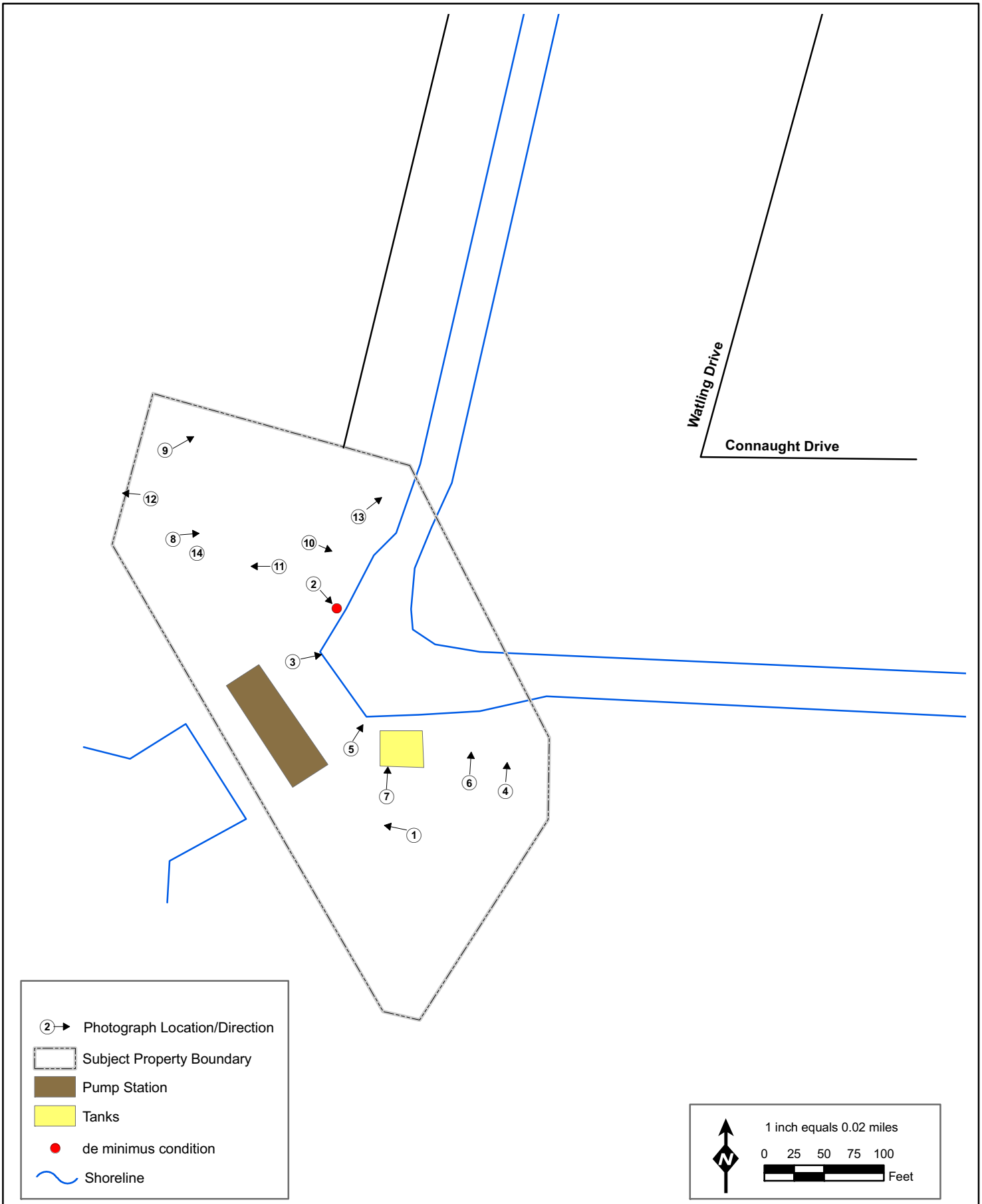

Figure 4: Survey Map of Westminster Pump Station

GSRC

March 2007

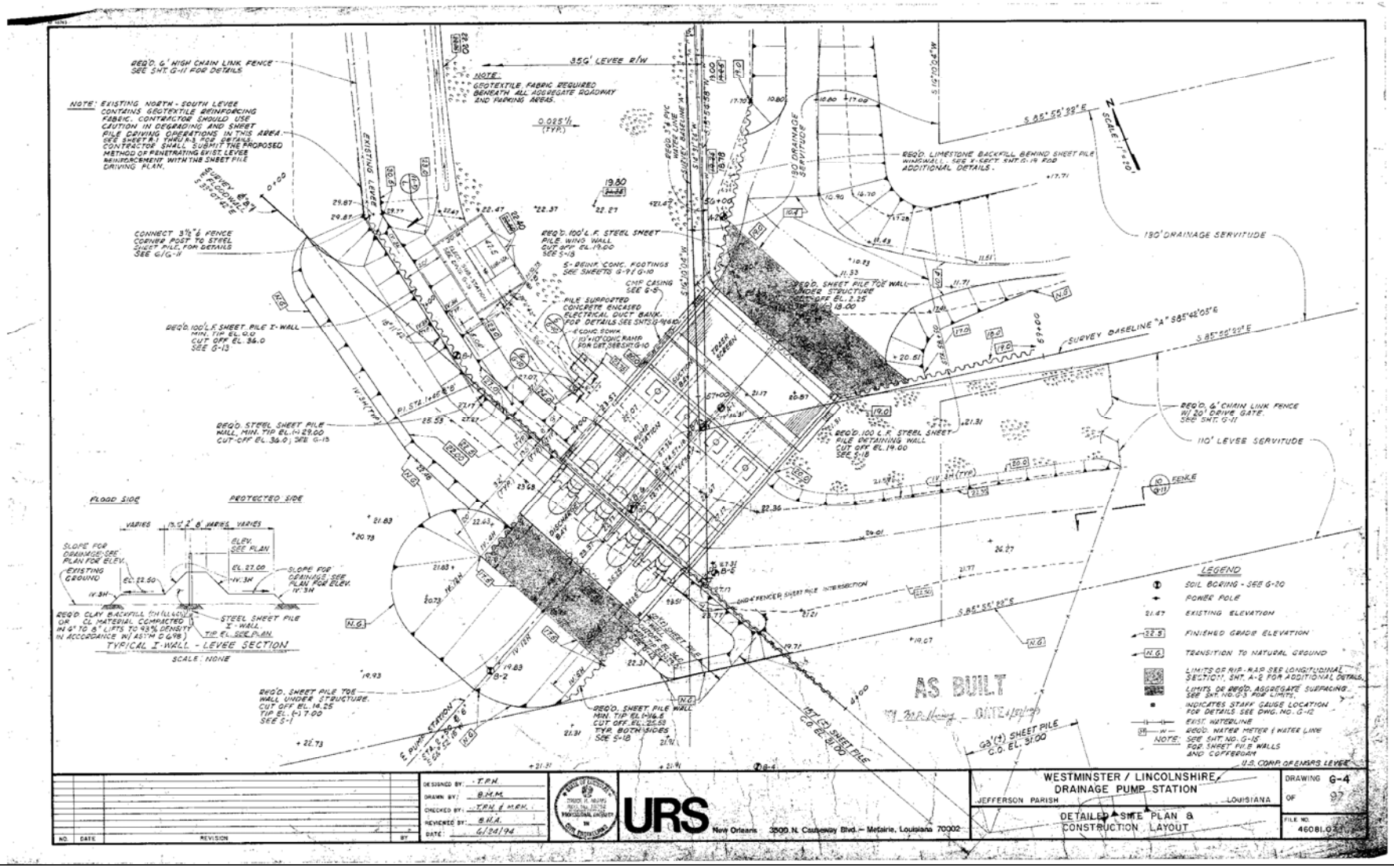

FIgure 5: Westminster Pump Station Site Plan

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The pump station uses only electric motors, so there is no fuel stored or used at the site. A small (500-gallon) diesel storage tank in a containment basin was noted on the property, and is used to support construction equipment repairing the adjacent levee (Photograph 7, Appendix B).

A minor spill of lubricant was noted adjacent to the debris screens at the intake basin (Photograph 3, Appendix B), but the amount does not constitute a *recognized environmental condition* on the subject property.

There is a transformer station owned by the local electric company on the subject property with unknown PCB content (Photograph 8, Appendix B). There are plans to construct a generator plant on the site to run the electric pump motors, and at that time the transformers will be removed.

The pump station is currently on city water service for potable water, but waste water and sewage is handled by a septic tank and drain field on the site. There is no water well on the property, but a well is scheduled to be installed in the future.

2.6 PERSONAL INTERVIEWS

Station Operator

On March 7, 2007, GSRC interviewed the Westminster Pump Station operator, Mr. John Chagnard, who has been with the Jefferson Parish Department of Drainage for 5 years, and at the Westminster Station for 3 years. He stated that the he thought the station was built in 1992. He stated that there had been no oil or fuel spills on the property since he has been employed there, but there was a spill up the canal approximately 2 months prior. The station does not keep hazardous materials on site, other than maintenance paint in 5-gallon buckets for the equipment and gas cans for the grounds mowing equipment. Paint and gas is stored in the Connex storage container until needed. The transformers on the site are used to power the electric motors at the station, and are owned and maintained by the local power company. A generator station is scheduled to be installed this year.

Other Interviews

Because other historical data and information sources indicated no prior use other than the current use and no other ownership prior to the current owner, and no indications of recognized environmental conditions were identified from other reliable sources, no further interviews of local officials were deemed necessary to determine the existence of recognized environmental conditions on the subject property. State agency information requests regarding individual properties are typically referred to the state database for information, and that database was consulted.

3.0 FINDINGS FOR SUBJECT PROPERTY

3.1 HISTORIC USE

The documents reviewed by GSRC to determine historical land uses and potential environmental conditions associated with those uses regarding the subject property and surrounding areas are described in the paragraphs below.

Historic Topographic Quadrangles and Aerial Photographs

Historic topographic maps dated from 1891 to 1982 and aerial photographs dated from 1963 to 2005 were inspected to identify structures and development on the subject property and surrounding properties. The first indication of development of the subject property appeared on the 1990 aerial photograph with the flood protection levee in place. In the 1998 aerial photograph, the site was developed in its current configuration with the pump station in place. The adjacent residential neighborhoods first appeared in the 1982 topographic map. The 1990 aerial photograph showed the residential development at its southernmost point, directly northeast of the subject property, but no structures were observed on the subject property in 1990.

The 2004 and 2005 aerial photographs showed no change from the 1998 aerial photograph. Based on historical maps and photos, the 1992 construction date for the pump station appears accurate. No prior structures or development on the subject property, other than the flood protection levee, is indicated before construction of the pump station.

3.2 CURRENT USE

Environmental Setting

The subject property is located at the south end of a shell road, south of Westminster Drive. The entire property appears to be disturbed, and the ground cover consists of maintained turf grass and shell/gravel surfaces. All of the adjacent waterways (canals) inside the levee appear manmade. The undeveloped land areas around the subject property appear to be natural wetlands. A manmade earthen levee with concrete top walls separates the subject property from the natural swamps and wetlands to the south and west. The land surface is generally flat, with a slight manmade slope to the northeast on the property.

According to the current topographic map, the elevation of the subject property is less than 5 feet above mean sea level, and the soil component within the subject property is the Barbary Muck, as indicated on the NRCS soil map for the area. This soil consists of poorly-drained mud that has low infiltration rates and is generally saturated to the soil surface in wetlands (NRCS 2007). The subject property has been extensively filled with other soil and materials, so the indicated soil component is no longer valid. The topography of the subject property generally slopes toward the northeast, but is relatively flat. Because no recognized environmental conditions were identified on or adjacent to the subject property, an analysis of the geology and hydrology of the site is not warranted.

3.3 HAZARDOUS MATERIALS/WASTES

No hazardous materials were observed on the subject property. The stained ground indicating a past leak or spill is not of sufficient size to constitute a business environmental risk to the property.

3.4 SOLID WASTE

No solid waste, other than miscellaneous trash was observed on the subject property.

3.5 OTHER ENVIRONMENTAL CONCERNS

According to the EDR report and from the search of Federal and state databases no environmental concerns for the following substances were within the appropriate search radii of the subject property:

- Oil/Water Separators
- Medical Biohazard Waste
- Ordnance
- Radioactive Wastes/Radon
- Wastewater Treatment, Collection, and Discharge
- Asbestos
- Transformers/Polychlorinated Biphenyls (PCBs)
- Lead-based Paint

Transformers with unknown PCB content were observed on a concrete pad on the subject property. They appeared to be in good working condition with no visible leaks. A septic tank and leach field was observed on the property, but it appeared to be functioning properly. Sumps are present in the pump building around the motors and pumps.

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4.0 FINDINGS FOR ADJACENT PROPERTIES

4.1 LAND USES

GSRC inspected adjacent areas to the subject property with efforts concentrated on observing existing *recognized environmental conditions* with the potential to affect the subject property.

Adjacent property to the west and south is natural wetlands. Adjacent property to the east and northeast is residential neighborhoods. No *recognized environmental conditions* were observed on any adjacent properties.

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5.0 APPLICABLE REGULATORY COMPLIANCE ISSUES

5.1 LIST OF COMPLIANCE ISSUES AND CORRECTIVE ACTIONS

According to the EDR report (Volume II, Section A) and information gathered from Internet searches, there are no outstanding violations or compliance issues regarding facilities/sites within the search radius surrounding the subject property.

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6.0 OPINIONS & CONCLUSIONS

We have performed a Phase I *Environmental Site Assessment* in conformance with the scope and limitations of ASTM Practice E1527-05 of the subject property. Any exceptions to, or deletions from, this practice are described in Section 7 of this report. This assessment revealed no evidence of *recognized environmental conditions* in connection with the subject property. The EDR report and searches from Federal and state databases yielded no information regarding other environmental conditions on or within the vicinity of the subject property. In addition, none of the orphan sites/facilities listed in the EDR report are located within an appropriate search distance from the subject property to constitute a business environmental risk.

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7.0 DEVIATIONS

No deletions or deviations from ASTM Practice E1527-05 were noted. The lack of a search for use limitations or environmental liens does not affect the subject property, since all indications from other reliable historic sources are that the property was undeveloped wetlands prior to construction of the current pump station on the property, and there have been no owners other than the current owner.

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8.0 RECOMMENDATIONS

No *recognized environmental conditions* were indicated on the subject property that would require further environmental studies or assessments.

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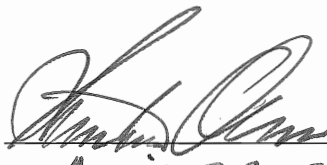
9.0 CERTIFICATIONS

The opinions and conclusions set forth in this report, either expressed or implied, are based solely upon the work and information described herein. No soil, water, or air sampling and analysis were conducted for the subject property; therefore, no statement can be made as to their actual quality. Comments regarding the site reconnaissance and records research results are limited strictly to field observations and the actual records that were reviewed by GSRC. Any opinions concerning the likelihood that the subject property contains toxic or hazardous waste materials are intended solely as a probabilistic evaluation based upon such information. No warranty or guarantee is made or intended. Should any higher level of confidence be desired, physical sampling and laboratory analysis (Phase II of an ESA) would be necessary.

I declare that, to the best of my professional knowledge and belief, I meet the definition of an Environmental Professional as defined in §312.10 of 40 CFR 312, and I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed all of the appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Stephen Oivanki
Project Manager
GSRC

Signature 
Date April 23, 2007

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10.0 REFERENCES

EDR 2007, Westminster P.S. to Ames P.S. Marrero, LA EDR Map Corridor Study, I.N. 01870752.1r, March 6, 2007

Environmental Protection Agency (EPA). 2007. Enforcement and Compliance History Online: http://www.epa.gov/echo/> ,and Envirofacts Data Warehouse: http://www.epa.gov/enviro/index_java.html

Louisiana Department of Environmental Quality (LDEQ). 2007. Enforcement Actions. October 2003 to March 2006. http://www.deq.louisiana.gov/portal/tabid/225/Default.aspx

Natural Resource Conservation Service (NRCS) Web Soil Survey 2007, http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

U.S. Army Corps of Engineers, New Orleans Division (USACE) 1963 aerial photograph

USACE 1963, aerial photograph

USACE 1977, aerial photograph

USACE 1990, aerial photograph

U.S. Geological Survey (USGS) 1891, New Orleans West, Louisiana 15-minute Quadrangle

USGS 1938, New Orleans West, Louisiana 7.5-minute Quadrangle

USGS 1950, New Orleans, Louisiana 15-minute Quadrangle

USGS 1951, New Orleans West, Louisiana 7.5-minute Quadrangle

USGS 1954, New Orleans, Louisiana 15-minute Quadrangle

USGS 1967, New Orleans, Louisiana 15-minute Quadrangle

USGS 1982, Lake Cataouatche East, Louisiana 7.5-minute Quadrangle

USGS 1998, DOQQ Aerial Photograph, 7.5 minute Quadrangle

USGS 2004, DOQQ Aerial Photograph, 7.5 minute Quadrangle

USGS 2005, DOQQ Aerial Photograph, 7.5 minute Quadrangle

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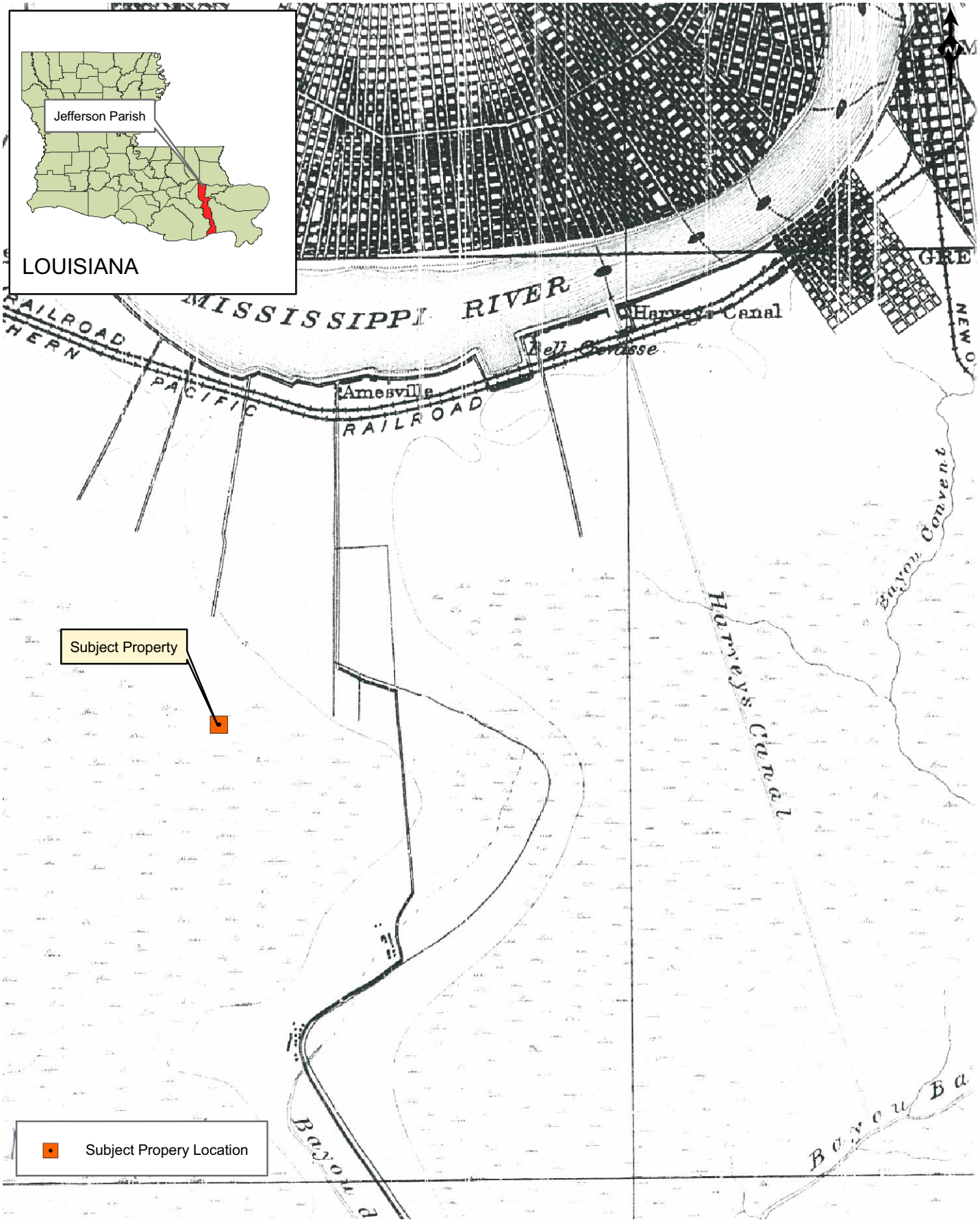
APPENDIX A
HISTORICAL TOPOGRAPHICAL MAPS AND AERIAL PHOTOGRAPHS



Westminster Pump Station
1891 New Orleans, LA 15 minute USGS Topographic Quadrangle

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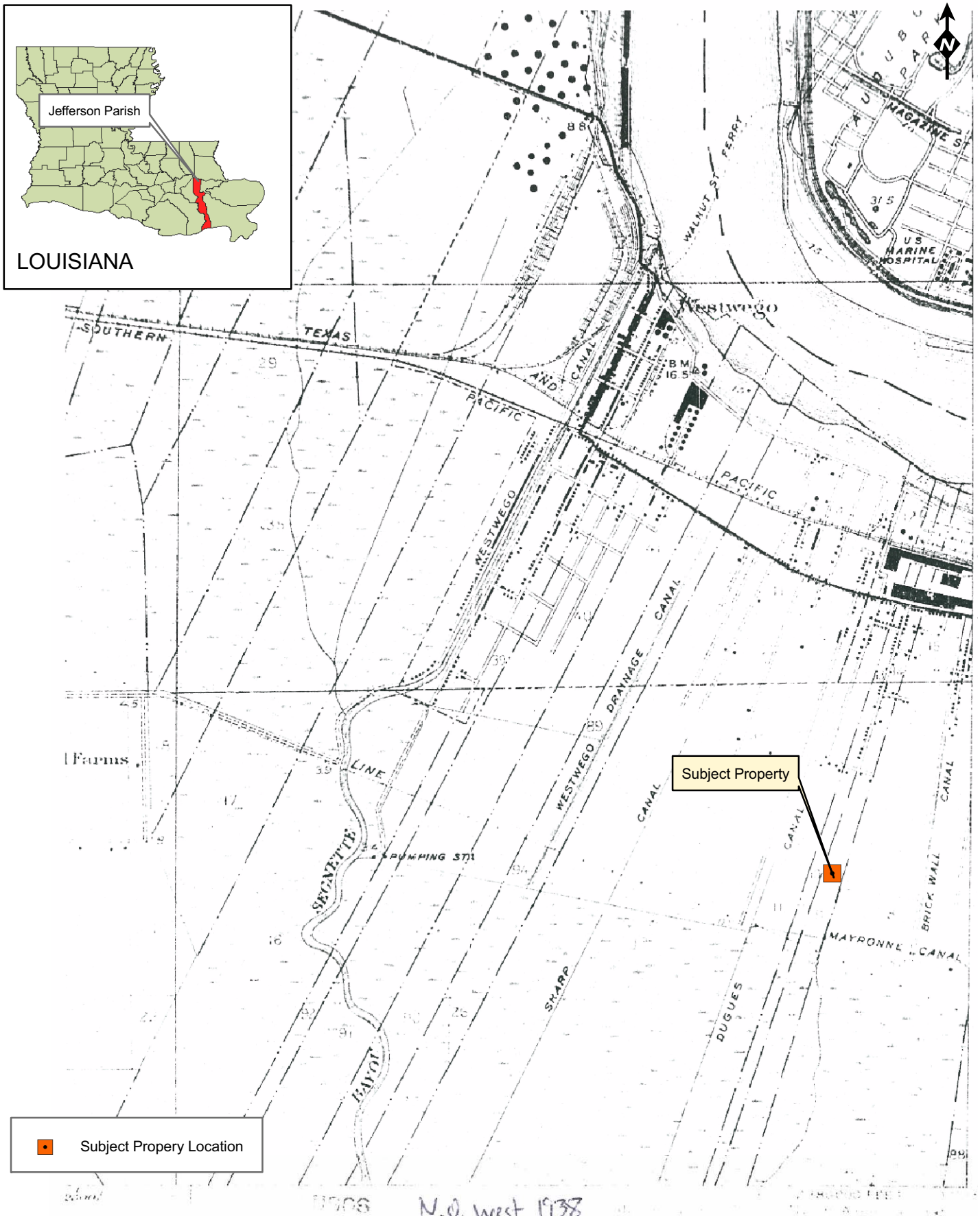

Westminster Pump Station
1938 New Orleans West, LA 7.5 minute USGS Topographic Quadrangle

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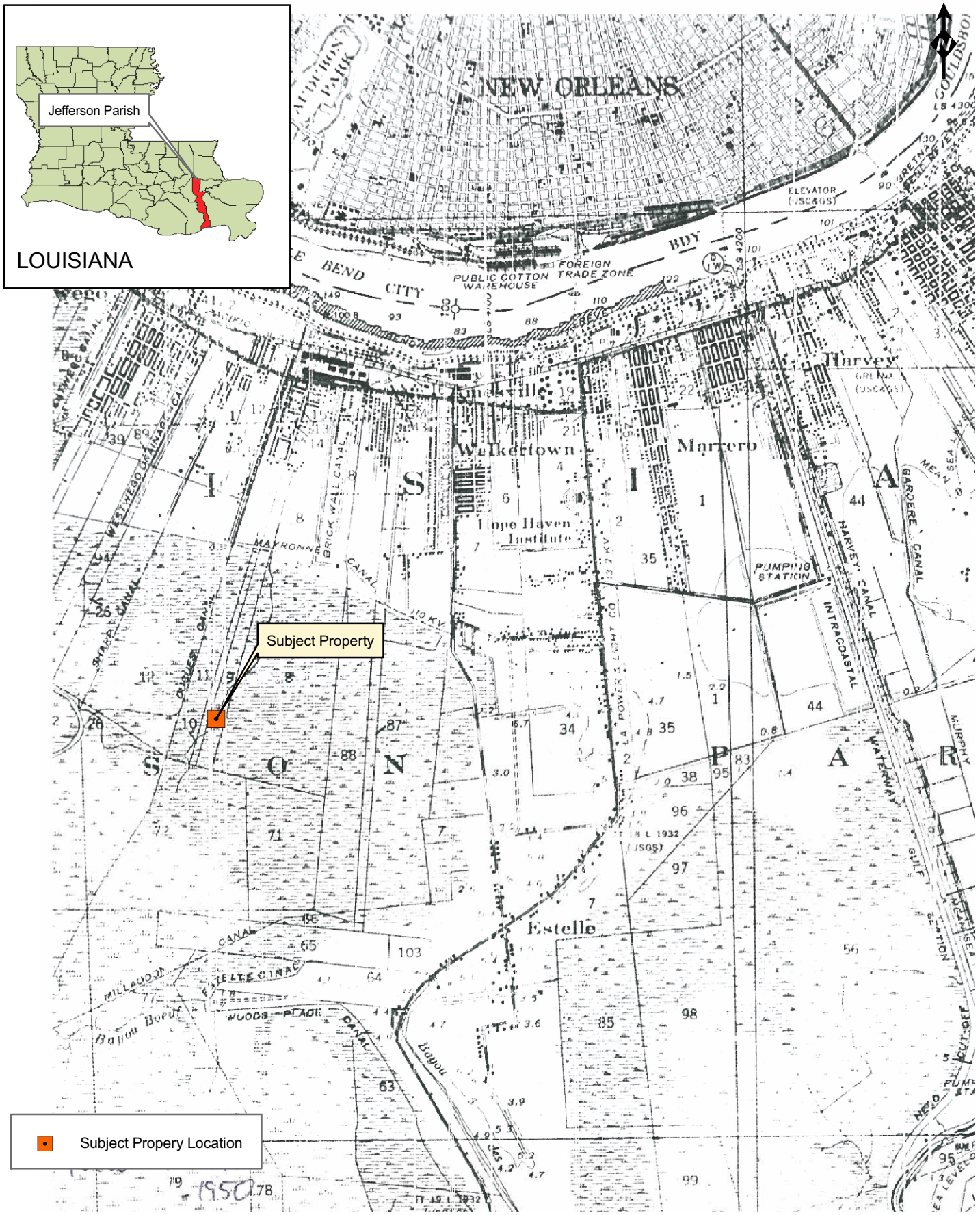

Westminster Pump Station
1950 New Orleans, LA 15 minute USGS Topographic Quadrangle

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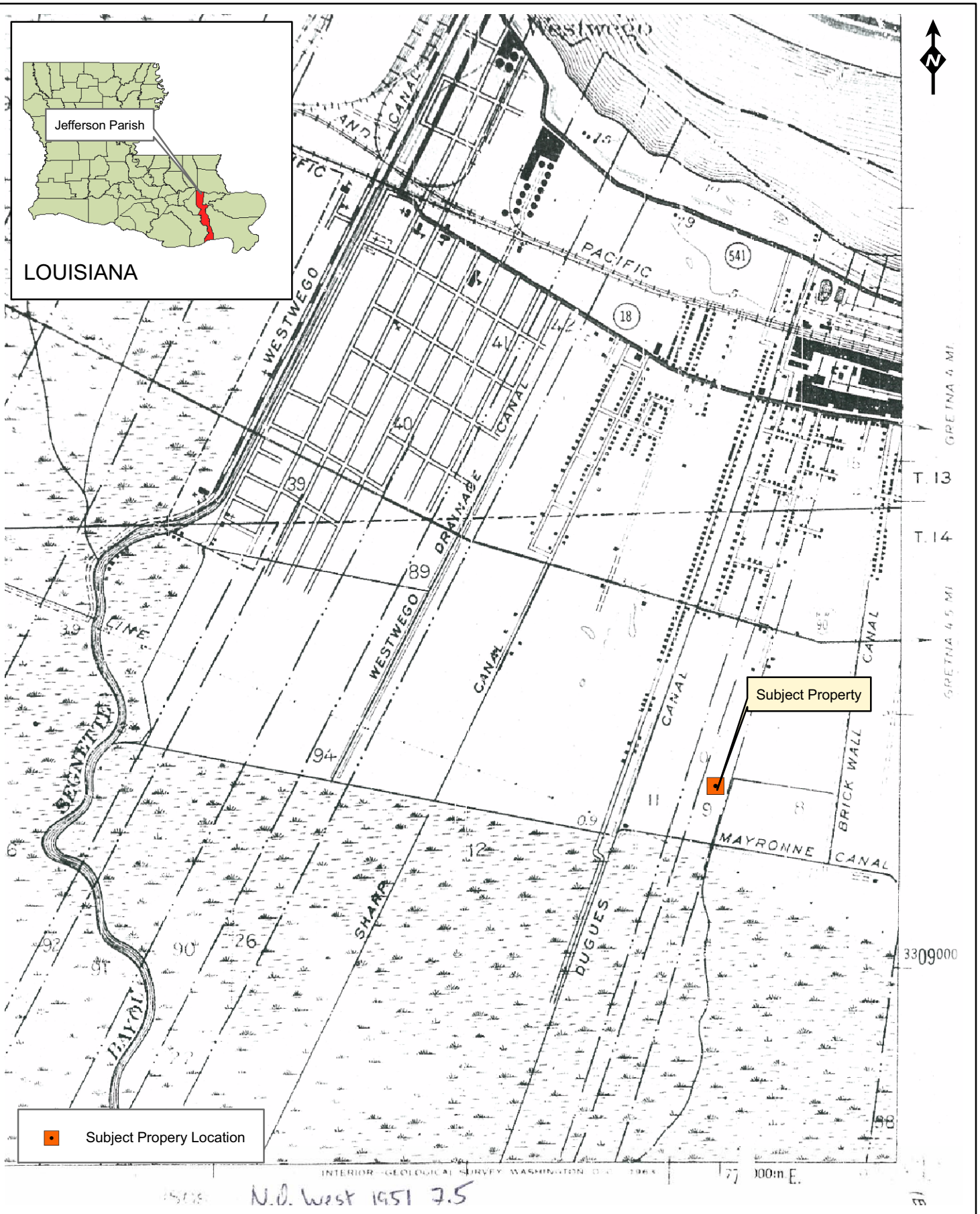

Westminster Pump Station
1951 New Orleans West, LA 7.5 minute USGS Topographic Quadrangle

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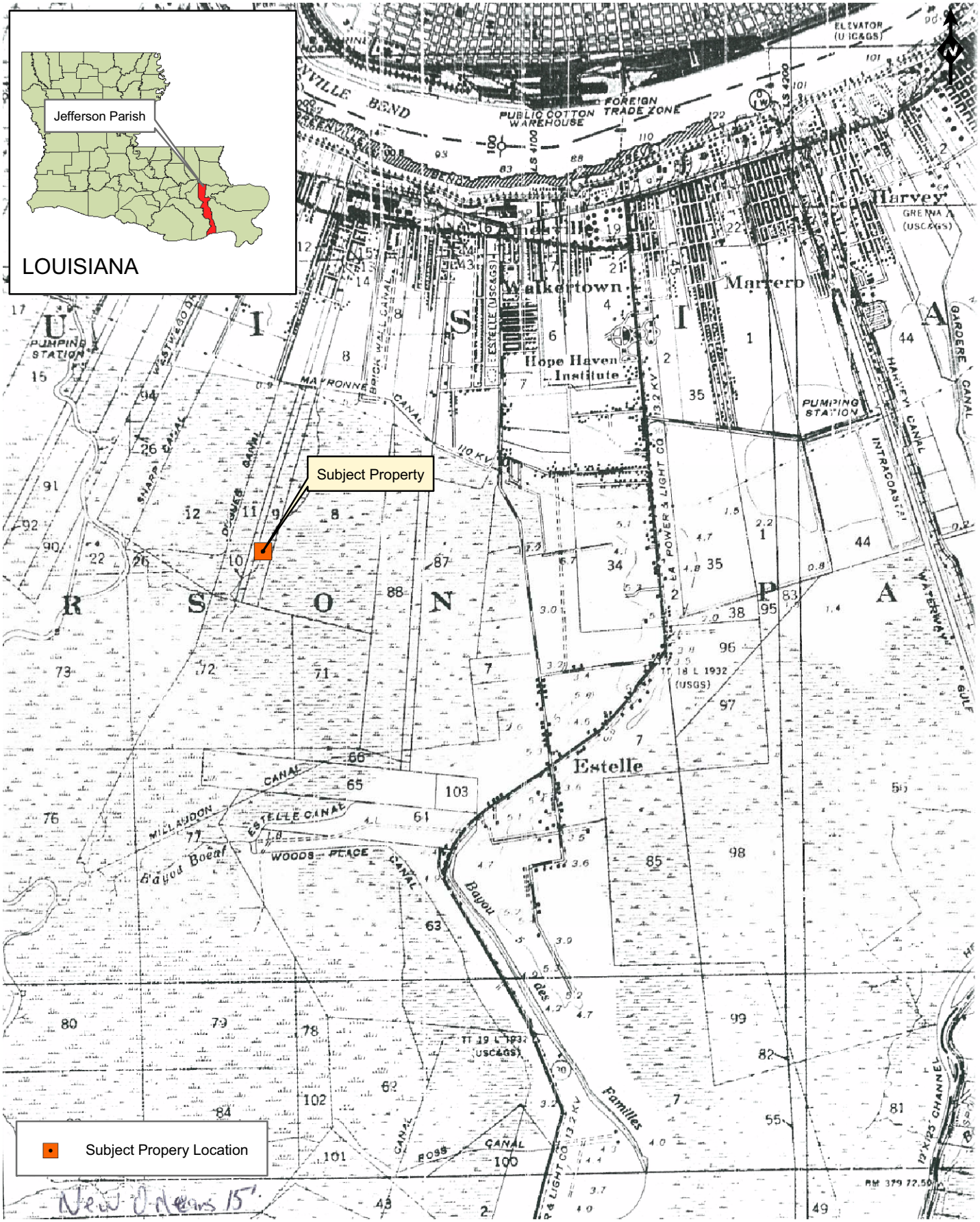

Westminster Pump Station
1954 New Orleans, LA 15 minute USGS Topographic Quadrangle

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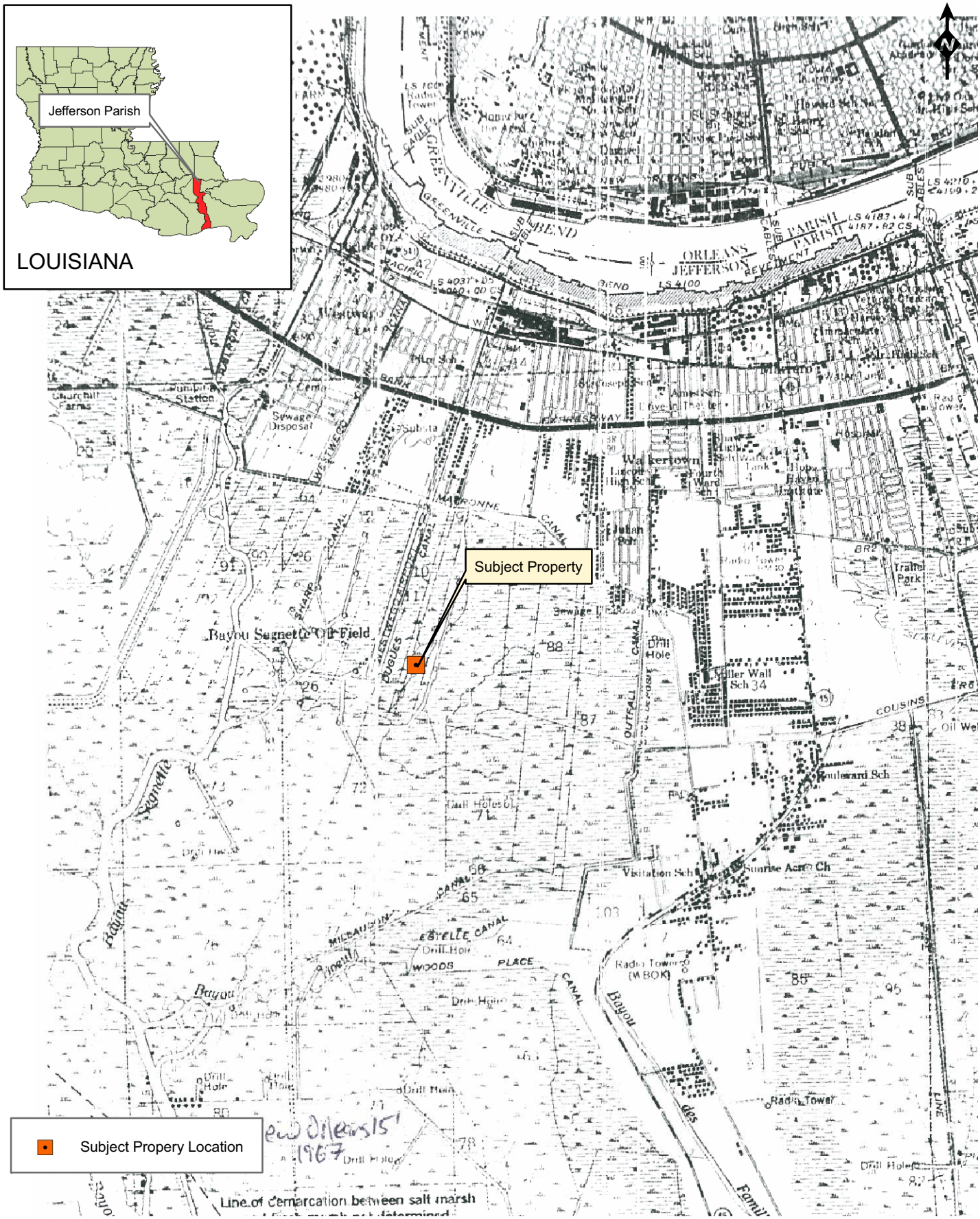
Westminster Pump Station
1963 Aerial Photography

GSRC

March 2007



Westminster Pump Station
1967 New Orleans, LA 15 minute USGS Topographic Quadrangle

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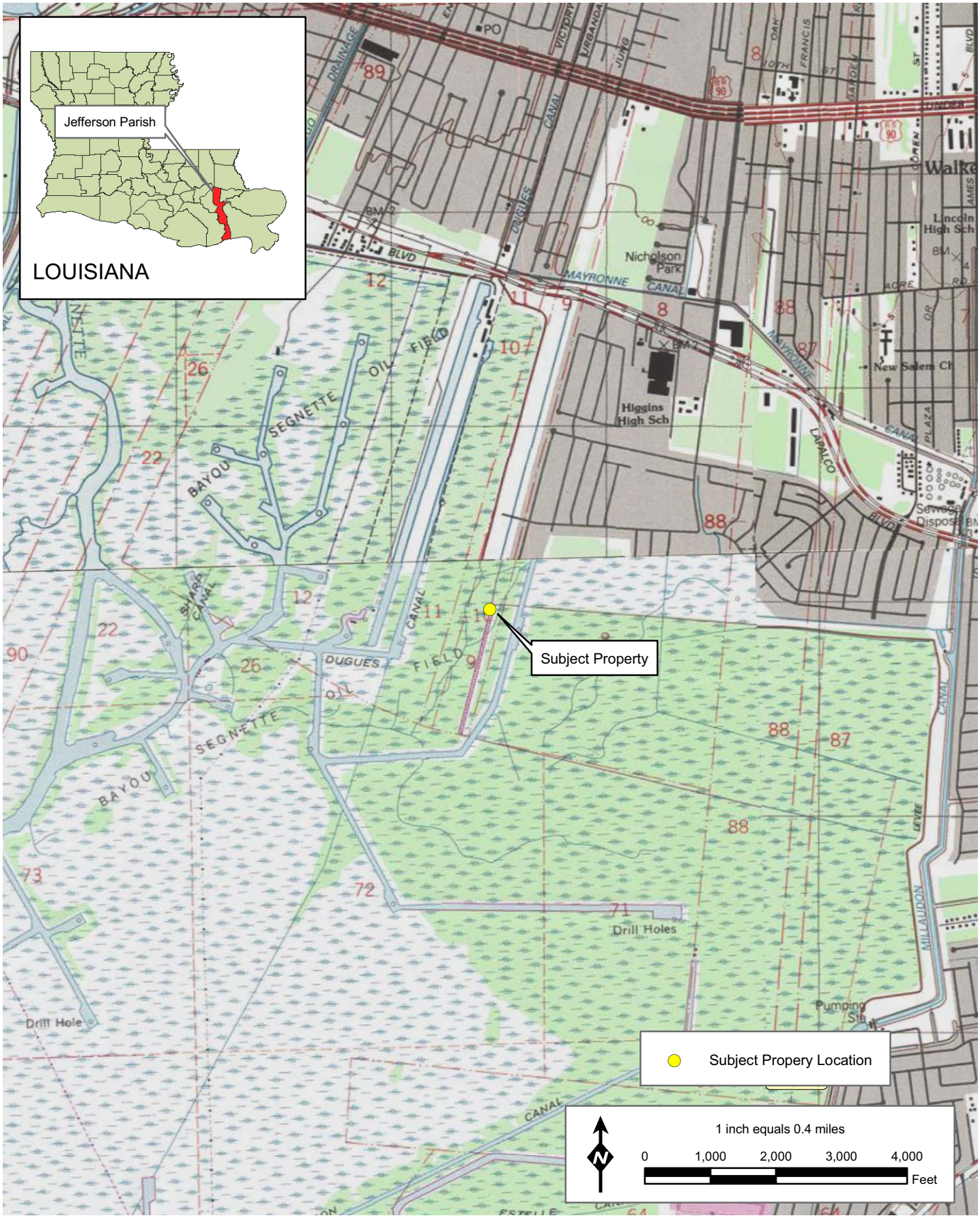
Westminster Pump Station
1977 Aerial Photography

GSRC

March 2007



Westminster Pump Station
1982 Lake Cataouatche East, LA USGS Topographic Quadrangle

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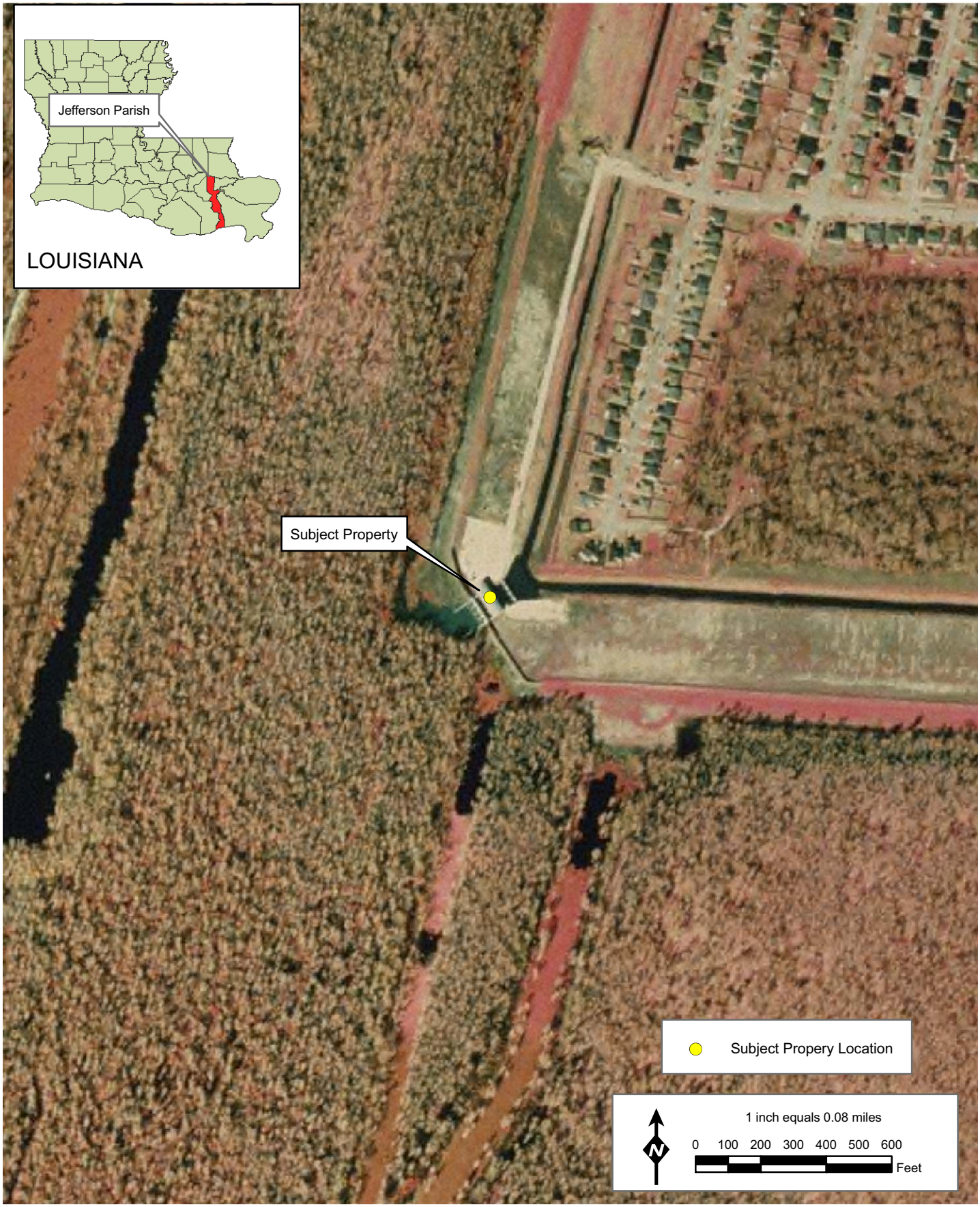
Westminster Pump Station
1990 Aerial Photography

GSRC

March 2007



Westminster Pump Station
1998 Lake Cataouatche East, LA USGS DOQQ

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Westminster Pump Station
2004 Lake Cataouatche East, LA USGS DOQQ

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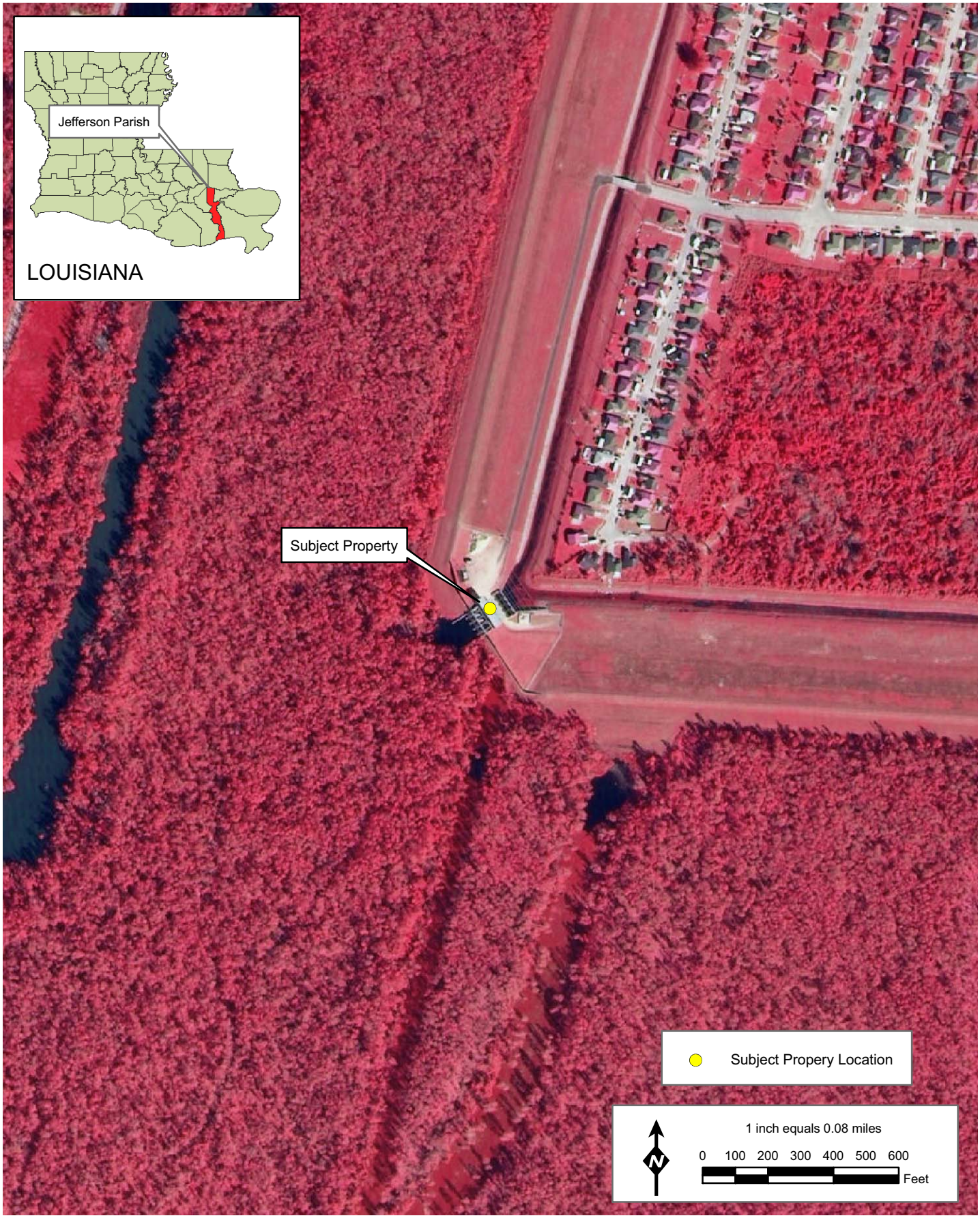
March 2007



Westminster Pump Station
2005 Lake Cataouatche East, LA USGS DOQQ

GSRC

March 2007

APPENDIX B
SITE PHOTOGRAPHS

SITE PHOTOGRAPHS

Photograph 1. Subject property, view to the northwest

Photograph 2. Stained soil on subject property

Photograph 3. Lubricating gear grease spill adjacent to debris screen

Photograph 4. Connex storage box used for construction storage

Photograph 5. Old tires and lube oil containers on subject property

Photograph 6. Construction equipment on subject property

Photograph 7. Diesel fuel tank for construction in containment basin

Photograph 8. Transformer station on subject property

Photograph 9. Construction office trailers on subject property


Photograph 10. Dumpster and portable toilet for construction activities

Photograph 11. View of subject property to the west

Photograph 12. View to the west of adjacent property

Photograph 13. View to the northeast of adjacent property

Photograph 14. Empty gas and antifreeze containers on subject property

APPENDIX C
LIST OF PREPARERS

The following people were primarily responsible for preparing this report.

Name	Discipline/Expertise	Experience	Role In Preparing Report
Stephen Oivanki	Geologist Environmental Assessment	20 years of environmental assessment and remediation experience	Project manager, ESA preparation, field survey
Greg Lacy	Environmental Studies	10 years of environmental, natural resource, ESA, and NEPA studies	Field Survey
Denise Rousseau Ford	Environmental Engineering	15 years of environmental studies experience	Field Survey
Maria Reid	Forestry and Environmental Studies	5 years of environmental assessment and NEPA experience	Field Survey
Sharon Newman	GIS/Graphics	5 years GIS analysis	GIS and Graphics
David Alford	GIS/Graphics	4 years GIS/graphics experience	GIS and Graphics
Eric Webb, Ph.D.	Ecology/Wetlands	15 years NEPA and natural resources related studies	QA/QC

APPENDIX D
PERSONNEL QUALIFICATIONS

STEPHEN M. OIVANKI, P.G.
Qualified Environmental Professional (ASTM E1527-05)
Statement of Qualifications

Education: B.S. – Geology – Louisiana State University
M.S. – Geology – Louisiana State University

Training: HAZWOPER – 40-hour hazardous waste responder, current refresher
USACE 1997 Wetland Delineation Manual – 40-hour course
Mold Assessment and Remediation in Buildings – Training Course

Registrations: Registered Professional Geologist #412 – State of Mississippi

Experience: **Self-employed Consulting Geologist – 10 years**
Oil and gas exploration, subsurface site investigations, mining exploration, engineering geology

Mississippi Department of Environmental Quality – 9 years
Subsurface geology, subsurface site investigations, coastal geology and geomorphology

Mississippi Department of Marine Resources – 3 years
Coastal Zone Manager, supervision of environmental staff, oversight and review of Coastal Zone permits and environmental regulations

Compton Engineering, Inc. – 5.5 years
Phase I Environmental Site Assessments – 40
Phase II Environmental Site Assessments – 12
Emergency Response Action Contractor – Miss. LUST Trust Fund
LUST investigations and remediation – 5
Contaminated site investigations and remediation – 7
Wetland delineations – 50
Mold assessments and remediation supervision – 10
Spill Prevention Control and Countermeasure (SPCC) plans – 12
Rubbish and Subtitle D Landfill permits – 5
Storm Water Pollution Prevention Plans - 20

Gulf South Research Corporation – 6 months
Phase I Environmental Site Assessments - 13

GREGORY B. LACY
Qualified Environmental Professional (ASTM E1527-05)
Statement of Qualifications

Education: B.S.-Biology-Georgia Southwestern State University
M.S.-Biology-Georgia College and State University

Training: HAZWOPER-40-hour hazardous waste responder, current refresher.
HAZWOPER-8-hour Training for Supervisors
EPA Watershed Management - Training Certificate
Lead Supervisor - Training Course

Experience: **DDL Omni Engineering - 5 years**
Petroleum, oil, lubricant remediation, Chemical and biological decontaminations, Spill response, Hazardous waste management, Waste minimization.

Gulf South Research Corporation - 2 years
Phase I Environmental Site Assessments - 15

DENISE ROUSSEAU FORD
Qualified Environmental Professional
Statement of Qualifications

Education: M.S., Civil and Environmental Engineering, Louisiana State University
B.S., Geology, Louisiana State University

Training: HAZWOPER – 40-hour hazardous waste responder

Professional Organizations: Louisiana Brownfields Association (LBA) charter and founding member, 2006-2007 acting Executive Director

Experience: **Gulf South Research Corporation – 3 months**
Performs NEPA EA investigations and Phase I ESAs

Louisiana State University – 11 years
Preformed numerous technical reviews of Phase I and Phase II environmental site assessments, and cleanup action plans for non-profit organizations and municipalities involved in Brownfields transactions.

Performed technical reviews of various Superfund documents (including PAs, PA/SIs, RI/FSs and others) at sites in Corpus Christi, TX; Lake Charles, LA; Alsen, LA and other sites throughout EPA Region 6.

GDC Engineering – 3 years
Worked as an environmental geologist and project manger in the field of hazardous waste remediation. Specific projects included groundwater investigations at Deltech, in Baton Rouge, LA and DOW Chemical in Plaquemine, LA.

MARIA BERNARD REID
Environmental Professional
Statement of Qualifications

Education: B.S. – Forest Management – Louisiana State University
M.S. – Agricultural Economics and Agribusiness, Natural Resources Policy and Environmental Management and Planning – Louisiana State University

Training: HAZWOPER – 40-hour hazardous waste responder, current refresher
USFWS Endangered Species Act Section 7: Interagency Consultation Training – 40-hour course
Wetland Delineator Training – 40-hour course

Experience:

Soil and Water Conservation District: Washington County, Arkansas – 2 years
Beaver Lake/White River Water Quality Technician – Prepared nutrient management plans for area ranchers, and planned and implemented Best Management Practices for nutrient management and water quality and soil erosion protection.

Gulf Engineers and Consultants: Baton Rouge, Louisiana – 1.5 years
Environmental Scientist – Conducted wetland delineations and threatened and endangered species surveys and prepared NEPA documents.

Gulf South Research Corporation – 3 years
Natural Resources - Conducted wetland delineations, threatened and endangered species surveys, and environmental site assessments, and prepared NEPA documents.

APPENDIX E
CONTACT REPORTS

Phone Log/Contact Report

Project No.:	80600105s	Date:	8-7-07	Time:	11:00 am
Project Name:	Jefferson Parish Stormproofing				
Employee:	Maria Reid	Person Contacted:	John Chagnard		
Organization:	Jefferson Parish Drainage Dept.	Telephone No.:	Direct contact		
Reason for Call/Topics Discussed:	Pump station operations and history – Westminster Station				
Copies to:	file				

Comments: Mr. John Chagnard, pump station Operator 2, was interviewed during the site visit. He has worked for Jefferson Parish for 5 years, including 3 years at the Westminster Pump Station. He stated that the station was built in 1992. He had no knowledge of any prior use of the site before the station was built. There have been no known spills at the site, but there was an oil spill up the canal approximately two months ago. The station gets potable water from the city water system. There are four electric pumps at the station, and a new generator building and water well are planned for the station. There is a SPCC plan at the station, as well as a spill containment and cleanup kit. Exxon Dynagear is used as a lubricant, and all motor oil is stored inside the station. The Connex container is used to store gasoline, lawn maintenance equipment and paint. The orange Connex box, trailers, dumpster, steel and portable toilet on the site are used by the construction crew repairing the levee.

Decisions/ Agreements Reached:

Action Items: Information added to report

FINAL

PHASE I
ENVIRONMENTAL SITE ASSESSMENT

Westwego #2 Pump Station
Jefferson Parish, Louisiana

April 2007

Submitted to:
U.S. Army Corps of Engineers, New Orleans District
Hurricane Protection Office
7400 Leake Avenue
New Orleans, LA 70118

Submitted by:
Gulf South Research Corporation
8081 GSRI Avenue
Baton Rouge, LA 70820

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PHASE I ENVIRONMENTAL SITE ASSESSMENT
Westwego #2 Pump Station
Jefferson Parish, Louisiana

EXECUTIVE SUMMARY

This Phase I Environmental Site Assessment (ESA) report was prepared to support the U.S. Army Corps of Engineers (USACE), New Orleans District (hereafter referred to as the User) construction of infrastructure and improvements to the Westwego #2 Pump Station property (hereafter referred to as the subject property), owned by Jefferson Parish, Louisiana. The 2.7-acre parcel is located at the west end of the Westwego Drainage Canal adjacent to Bayou Segnette, at 820 South Laroussini Street, Westwego, Louisiana. The subject property is currently a developed site with an established drainage pump station and storage facilities.

This report was prepared and the site reconnaissance was conducted according to the American Society for Testing and Materials (ASTM) guidelines (ASTM E1527-05), which define good commercial and customary practices in the U.S. for conducting an environmental site assessment of a parcel of commercial real estate with respect to the range of contaminants within the scope of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 USC 9601) and petroleum products.

According to information gathered from document searches, interviews, and the site reconnaissance, Gulf South Research Corporation (GSRC) found no *recognized environmental conditions* related to operations of the pump station facility that may affect the subject property.

SIGNIFICANT ASSUMPTIONS

No significant assumptions were made regarding this assessment.

LIMITATIONS AND EXCEPTIONS OF ASSESSMENT

By contract agreement with the User, no title search or search of recorded property documents was conducted as part of this assessment.

USER RELIANCE

This report has been prepared by GSRC for the User. It is intended for the sole use by the User, and no other person or entity may use or rely on any such report for any purpose.

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1.0 PURPOSE OF THE PHASE I ENVIRONMENTAL SITE ASSESSMENT

The purpose of this Phase I ESA is to identify, to the extent feasible pursuant to the processes described herein, *recognized environmental conditions* in connection with the subject property and to provide an opinion on: (1) indications that petroleum products or hazardous or toxic materials and/or waste exist, or have existed, on or adjacent to the subject property that could potentially have an adverse impact; (2) indications of possible contamination, based upon observable conditions and readily available and reviewed public records or information; (3) the possibility that violations of current environmental regulations have occurred, or are occurring, on the subject property; (4) the potential for spilled, leaked, or improperly handled hazardous substances or petroleum products to migrate to or from the subject property; and (5) the existence of unsafe or unhealthful conditions on the subject property.

1.1 BOUNDARIES OF THE PROPERTY AND SURVEY AREA

The subject property is located in Jefferson Parish (Figure 1) at 820 South Laroussini Street, Westwego, Louisiana adjacent to Bayou Segnette, as shown in Figures 2 and 3. A site plan was provided by the Jefferson Parish Department of Drainage. Global Positioning System (GPS) coordinates were taken in the field at the presumed property boundaries for comparison with the site plan and to geo-reference the site on historic maps and aerial photographs.

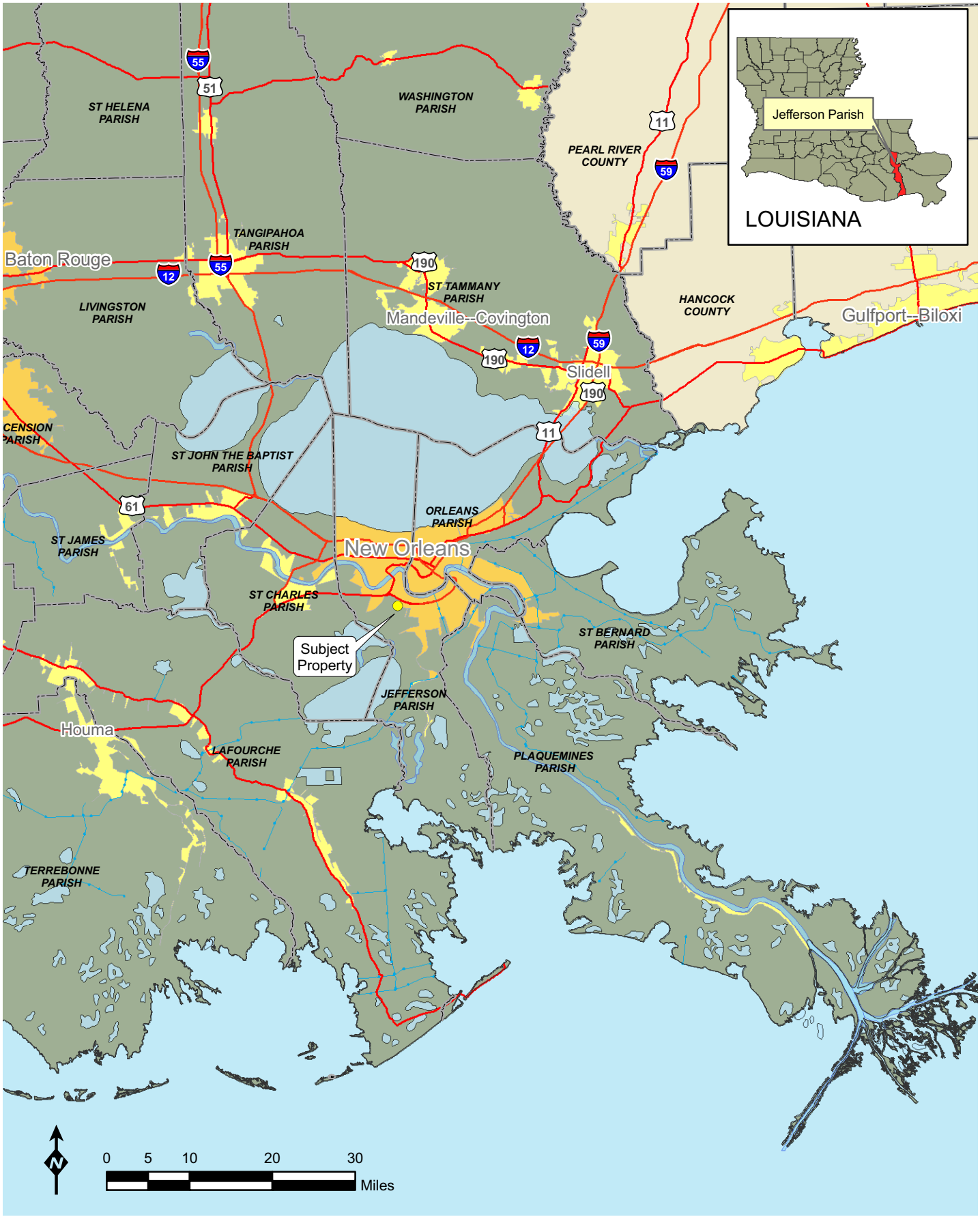

Figure 1: Vicinity Map

March 2007

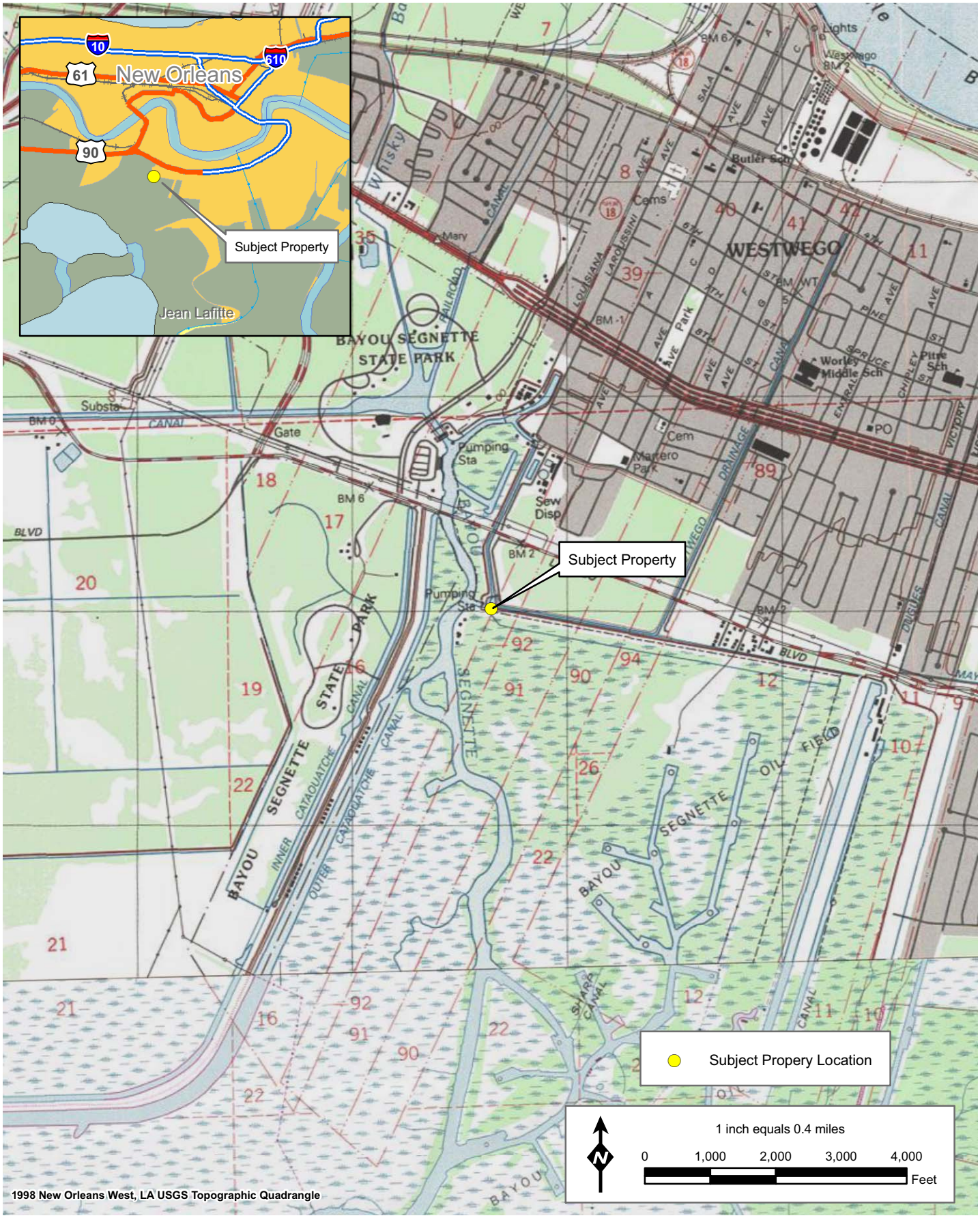

Figure 2: Westwego #2 Pump Station Location

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Figure 3: Westwego #2 Pump Station Area

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March 2007

2.0 SURVEY METHODOLOGY

2.1 APPROACH AND RATIONALE

This report was produced in accordance with the following:

> "The ASTM guidelines (ASTM E1527-05) which define good commercial and customary practices in the U.S. for conducting an environmental site assessment of a parcel of commercial real estate with respect to the range of contaminants within the scope of the CERCLA (42 USC 9601) and petroleum products. This practice is intended to permit a user to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on CERCLA liability; that is, the practice that constitutes all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice."

GSRC's scope of services for this project included four major components: (1) Federal, state, and local environmental records review, including a review of historical and physical setting records; (2) a site reconnaissance to search for visible indications of impacts or potential impacts to the environment or human health and safety; (3) interviews with key site personnel and local government officials; and (4) the preparation of this report. Following ASTM guidelines, the review of individual component items is subject to the "reasonable ascertainability" of that item.

The conditions disclosed by this investigation have been separated into the following categories of environmental conditions:

- *Recognized environmental condition* – A recognized environmental condition is defined in ASTM Practice E1527-05 as "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicated an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws."
- *Historical recognized environmental condition* – A historical recognized environmental condition is defined in ASTM Practice E1527-05 as an "environmental condition which in the past would have been considered a recognized environmental condition, but which may or may not be considered a recognized environmental condition currently. The final decision rests with the environmental professional and will be influenced by the current impact of the historical recognized environmental condition on the property. If a past release of any hazardous substances or petroleum products has occurred in connection

with the property and has been remediated, with such remediation accepted by the responsible regulatory agency (for example, as evidenced by the issuance of a no further action letter or equivalent), this condition shall be considered a historical recognized environmental condition."

- *De minimis condition* – A *de minimis condition* is defined in ASTM Practice E1527-05 as conditions "that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies."

The subject property parcel was accessible by vehicle and by foot. The site reconnaissance consisted of a thorough walk-through of the subject property, and the objective of the site reconnaissance was to obtain information indicating the likelihood of identifying any *recognized environmental conditions* in connection with the subject property. The term is not intended to include *de minimis conditions*. Observations were mainly focused on the subject property and any structures located on the subject property to the extent not obstructed by bodies of water, adjacent buildings, or other obstacles.

2.2 USER PROVIDED INFORMATION

2.2.1 Title Records

No title records were provided by the User. Past ownership of the subject property was verified by interviews with the property owner's representative.

2.2.2 Environmental Liens or Activity and Use Limitations

No environmental liens or activity and use limitations were reported by the User. No environmental liens or activity and use limitations were reported by the subject property owner. Since there have been no prior owners of the property, the current owner's statement is considered conclusive.

2.2.3 Specialized Knowledge

Historical and current knowledge of the subject property was provided by interviews with the subject property owner's representative.

2.2.4 Valuation Reduction for Environmental Issues

No valuation reduction for environmental issues was reported by the User or the subject property owner. Since the subject property has been owned by the current owner since prior to

the first development of the property, and no sale of the property is pending, valuation reductions do not apply in this case.

2.3 LIMITATIONS AND EXCEPTIONS

The only limitation or exception made to the ASTM Practice E1527-05 was the lack of title records search or recorded document search for the subject property by contract agreement with the User. Interviews with the subject property owner were used to verify the past ownership of the property and the presence or absence of use limitations on the property.

2.4 DESCRIPTION OF DOCUMENTS REVIEWED

Federal and State Environmental Databases

GSRC contracted Environmental Data Resources (EDR) to search Federal and state environmental databases that track activities associated with hazardous waste and incidents that have resulted in major environmental impairment. These databases are prepared and maintained by various Federal and state environmental agencies such as the U.S. Environmental Protection Agency (EPA) and the Louisiana Department of Environmental Quality (LDEQ). The minimum appropriate search distance was 1 mile from the subject property's boundary. The EDR report showing all information pertaining to the database searches is presented in Volume II (J). A summary listing of the Federal and state databases searched can be found on pages 1 and 2 of the Executive Summary in the EDR report in Volume II (J). Descriptions of the type and currency of data in those databases can be found on pages GR-1 through GR-14 of the EDR report.

GSRC conducted searches on the LDEQ website and EPA databases via the Internet such as Enforcement and Compliance History Online (ECHO) and Envirofacts Warehouse. No information regarding additional environmental concerns, other than those reported by EDR, within or in the vicinity of the subject property was found in the Federal or state databases (LDEQ 2007 and EPA 2007).

The EDR report indicates that there are no sites/facilities recorded from the database search within the search radii that may have or have generated, stored, treated, and/or disposed of solid or hazardous waste within or near the subject property.

EDR reported 14 sites/facilities that could not be accurately located and mapped (orphan sites) in the vicinity of the subject property. Ground reconnaissance revealed that only one of the orphan sites is located within the minimum appropriate search radius of the subject property that may result in a business environmental risk to the subject property.

The Westwego City Dump is located at the south end of Central Avenue in Westwego, outside of the flood control levee for Jefferson Parish. The dump is not listed in any Federal or state hazardous materials database, but it is listed as a solid waste disposal facility for municipal garbage and debris. The dump is located approximately 0.4 mile southeast of the subject property, and is separated from the subject property by an expanse of marsh and the flood protection levee. It does not pose a business environmental risk to the subject property. The Site Report for the dump is included in Volume II (J).

Sanborn Insurance Maps

No insurance map coverage was available for the subject property area.

City Directory Abstracts

No addresses were listed through 2006 for South Laroussini Street in Westwego.

Historical Maps/Aerial Photographs

Historical topographic maps and aerial photographs provided by the User were used for this report, since they provided the most comprehensive coverage of the subject property. Historical quadrangle maps were available for years spanning 1951 to 1998. Historic aerial photographs were available from 1963 to 2005. These maps and photographs typically show any development or habitat changes over time. The historical topographic quadrangles and aerial photographs reviewed by GSRC are listed in Table 1 and are included in Appendix A.

2.5 SUBJECT PROPERTY INSPECTIONS/OBSERVATIONS

Photographs of the subject property parcels are presented in Appendix B, and the locations of photographs are shown in Figure 4. A site plan for the subject property is provided in Figure 5. A site reconnaissance was conducted on March 7, 2007 by Maria Reid. The focus of the effort was to investigate the subject property for evidence of potential hazardous or toxic substances, or the presence of potential sources for environmental impacts, such as drums, petroleum

products and underground storage tanks (USTs). The subject property was accessible by foot and by vehicle, and was visually inspected for any *recognized environmental conditions*. The subject property is currently being used for an active drainage pumping station by Jefferson Parish.

Table 1. Historical Topographic Quadrangles/Aerial Photographs Reviewed

DATE	QUADRANGLE/PHOTOGRAPH NAME	SCALE
1951	New Orleans West, LA 7.5-Minute Quadrangle	1:24,000
1954	New Orleans, LA 15-Minute Quadrangle	1:62,500
1963	Aerial Photograph	---
1965	New Orleans West, LA 7.5-Minute Quadrangle	1:24,000
1967	New Orleans, LA 15-Minute Quadrangle	1:64,000
1977	Aerial Photograph	---
1990	Aerial Photograph	---
1998	New Orleans West, LA 7.5-Minute Quadrangle	1:24,000
1998	USGS DOQQ Aerial Photograph	1:24,000
2004	USGS DOQQ Aerial Photograph	1:24,000
2005	USGS DOQQ Aerial Photograph	1:24,000

Sources: U.S. Geological Survey, U. S. Army Corps of Engineers

The subject property consists of approximately 2.7 acres, as defined by a GPS survey of the apparent property boundaries in the field. There is a pump station structure on the property, and a temporary storage container (Connex box) (Photograph 6, Appendix B). According to the operator of the station, the container contains spare parts and equipment. The ground is relatively flat terrain covered with either gravel/shell, grass or concrete. All of the property appears to have been previously disturbed by construction or grading.

The main pump station facility is located at the southwest corner of the Westwego Drainage Canal, and it discharges into Bayou Segnette on the opposite side of the levee. The subject property is bordered on the north, east and south by undeveloped swamp and bottomland hardwood forest. It is bordered on the west by Bayou Segnette.

There were numerous old empty and filled 55-gallon drums and other containers adjacent to the pump building (Photographs 4, 5, 12, 13 and 15, Appendix B). The soil around many of the drums and containers is stained with oil, indicating past spills or leaks. A few pieces of equipment and barrels are located on a concrete storage pad on the site (Photograph 8, Appendix B). The area around the barrels and on the concrete storage pad is stained with oil, indicating leaks or spills in the past.

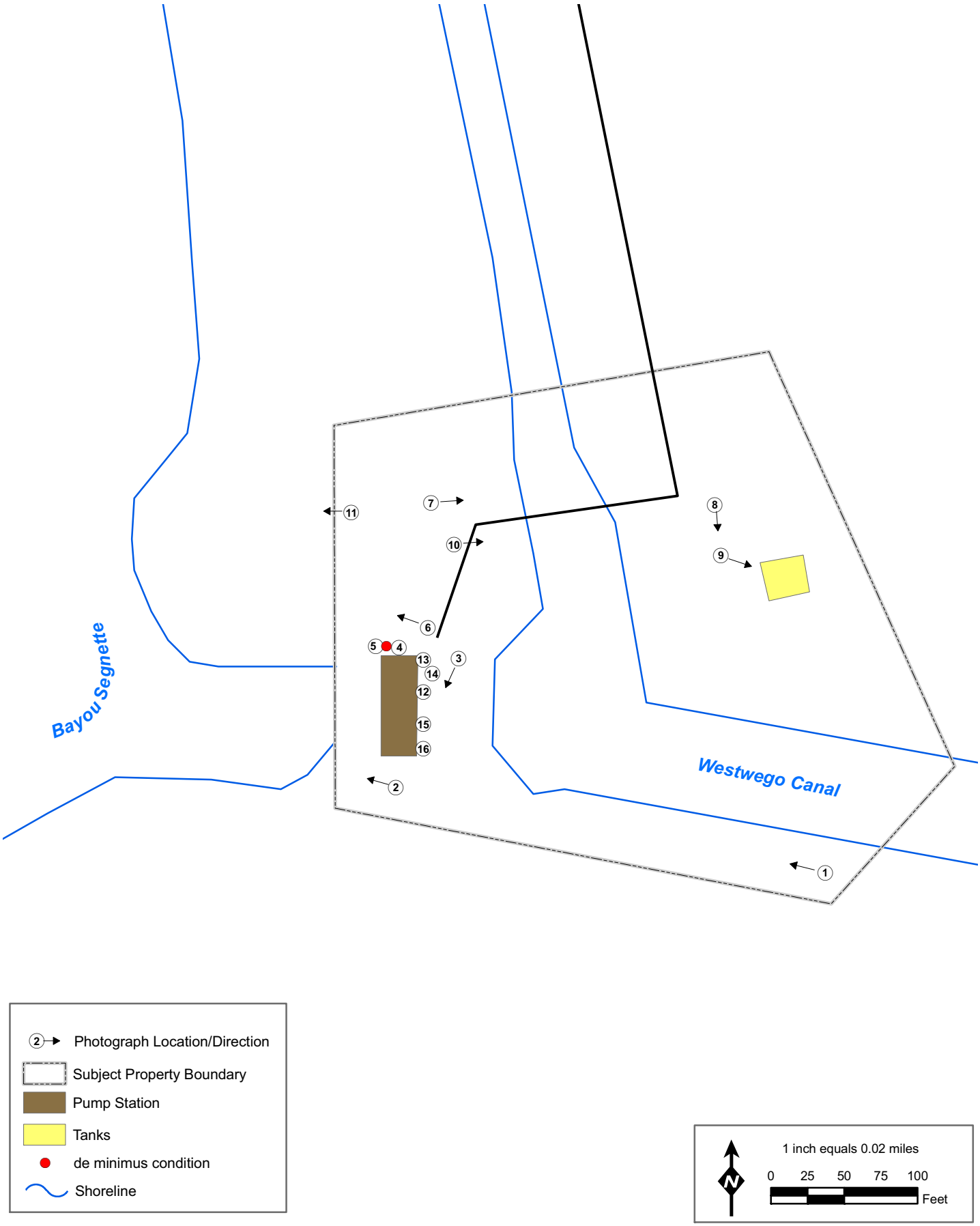

Figure 4: Survey Map of Westwego #2 Pump Station

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March 2007

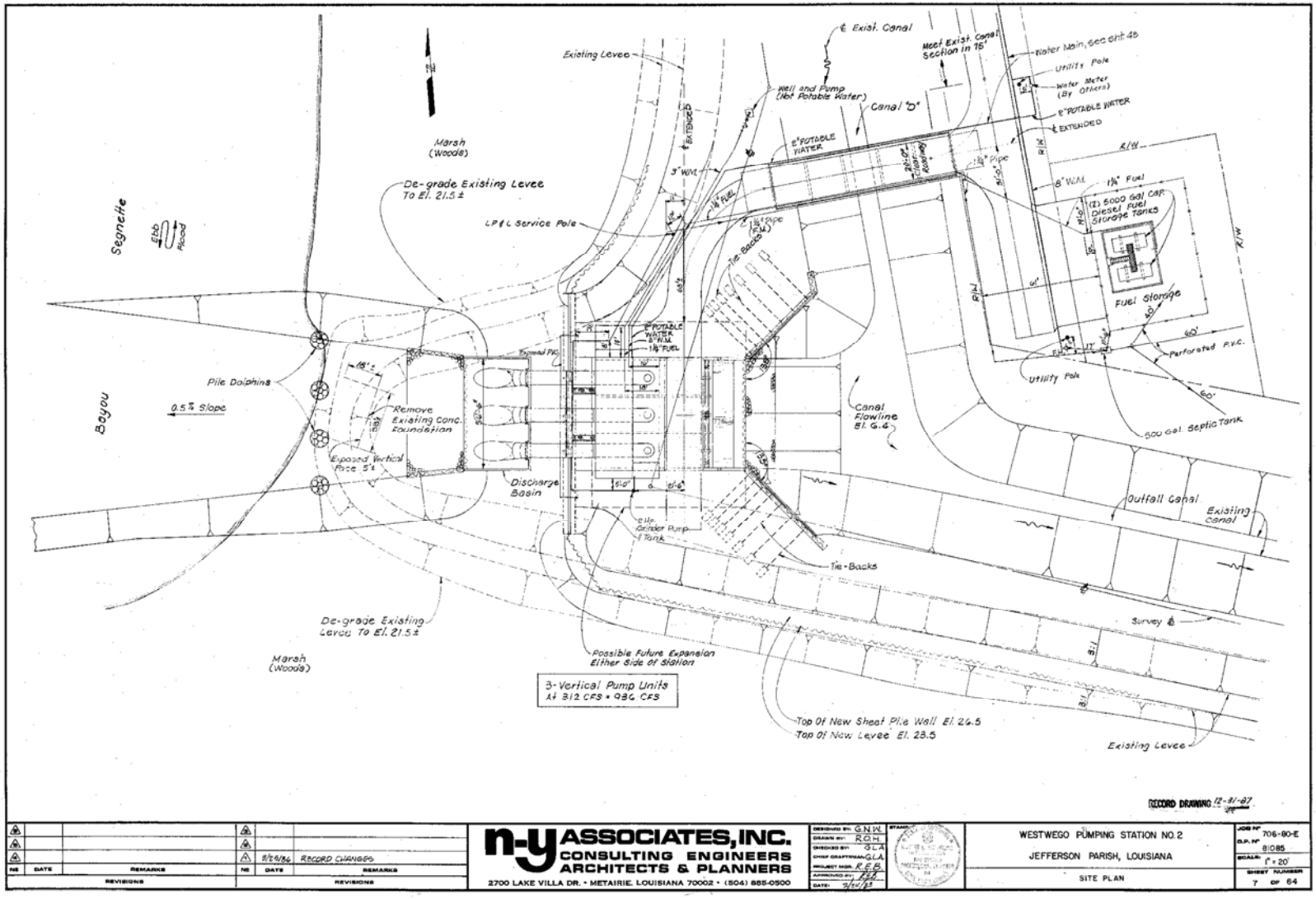

FIgure 5: Westwego #2 Pump Station Site Plan

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Used oil and other lubricants are collected in 55-gallon drums, and the drums are recycled by a licensed transporter. There is a current Spill Prevention Control and Countermeasures (SPCC) plan kept on site, and a spill containment and cleanup kit is also stored on site.

Diesel fuel for the station pump engines is contained in two horizontal storage tanks with a combined capacity of 10,000 gallons (Photograph 9, Appendix B), and the tanks have an approved spill containment basin, as defined in the SPCC plan.

The pump station is currently on city water service for potable water, but waste water and sewage is handled by a septic tank and leach field on the site. There is a water well on the property, and it is used for emergency cooling water for the pump engines. A propane gas tank (Photograph 2, Appendix B) with a 1,000 gallon capacity is used for heating the pump building.

A transformer station is located on the subject property (Photograph 7, Appendix B), but there is no indication of PCB content in the transformers. Three diesel day tanks with capacity of 300 gallons each are located inside the main pump building (Photograph 14, Appendix B). Lubricating oil for the engines is stored inside the main pump building.

2.6 PERSONAL INTERVIEWS

Station Operator

On March 7, 2007, GSRC interviewed the Westwego #2 Pump Station operator, Mr. Allen Babb, who has been with the Jefferson Parish Department of Drainage for 8 years, and at the Westwego # 2 Station for 3 years. He stated that the station was built in 1983. He stated that there had been no oil or fuel spills on the property since he has been employed there. The station does not keep hazardous materials on site, other than maintenance paint in 5-gallon buckets for the equipment. Used oil is recycled to waste drums, and then is disposed of by a licensed transporter. The transformers on the site are used to power the electric equipment at the station, and are owned and maintained by the local power company. The single remaining electric motor pump is scheduled for replacement with a diesel motor this year. There is a SPCC plan on site, as well as spill containment and cleanup materials.

Other Interviews

Because other historical data and information sources indicated no prior use other than the current use and no other ownership prior to the current owner, and no indications of recognized environmental conditions were identified from other reliable sources, no further interviews of local officials were deemed necessary to determine the existence of recognized environmental conditions on the subject property. State agency information requests regarding individual properties are typically referred to the state database for information, and that database was consulted.

3.0 FINDINGS FOR SUBJECT PROPERTY

3.1 HISTORIC USE

The documents reviewed by GSRC to determine historical land uses and potential environmental conditions associated with those uses regarding the subject property and surrounding areas are described in the paragraphs below.

Historic Topographic Quadrangles and Aerial Photographs

Historic topographic maps dated from 1951 to 1998 and aerial photographs dated from 1963 to 2005 (Appendix A) were inspected to identify structures and development on the subject property and surrounding properties. The 1951 topographic map indicated no structures or development on the subject property. The first indication of development of the subject property appeared on the 1954 topographic map.

In 1954, the site was labeled as a pumping station. In 1963, the property had been cleared at the end of the canal, but no structures were visible in the photograph, which was of very poor quality. The 1965 topographic map indicated the subject property had been cleared and an access road was present. No structures were noted; however, a pump station was shown across Bayou Segnette approximately 300 feet to the north. This is likely the pumping station location indicated on the 1954 topographic map.

In 1967, the topographic map showed no change from 1965. The 1977 aerial photograph showed the access road in place, as well as the canals, and the subject property had been cleared and graveled. A possible structure was visible at the approximate location of the current pump station. In the 1998 aerial photograph, the subject property was developed in essentially its current configuration. A cleared area, probably with a shell surface, was visible approximately 200 feet northeast of the subject property across the drainage canal. The 1998 topographic map indicated that the pumping station was constructed in its current location.

The 2004 aerial photograph showed the subject property in its current state of development, and the cleared area to the northeast had been abandoned and was covered with vegetation. The 2005 aerial photograph showed no change to the subject property, and the formerly cleared area to the northeast appeared the same as the surrounding undeveloped hardwood forest.

3.2 CURRENT USE

Environmental Setting

The subject property is located at 820 South Laroussini Street at the end of a shell road extending south from Lapalco Boulevard. The entire property appears to be disturbed, and the ground cover consists of maintained turf grass and shell/gravel surfaces. All of the adjacent waterways (canals) inside the levee appear manmade. The undeveloped land areas around the subject property appear to be natural wetlands. A manmade earthen levee with concrete top walls separates the subject property from Bayou Segnette and the marsh areas to the south. The land surface is generally flat, with a slight manmade slope to the east on the property.

According to the current topographic map, the elevation of the subject property is less than 5 feet above mean sea level, and the soil component within the subject property is the Barbary Muck, as indicated on the NRCS soil map for the area. This soil consists of poorly-drained mud that has low infiltration rates and is generally saturated to the soil surface in wetlands (NRCS 2007). The subject property has been extensively filled with other soil and materials, so the indicated soil component is no longer valid. The topography of the subject property generally slopes toward the northeast, but is relatively flat. Because no *recognized environmental conditions* were identified on or adjacent to the subject property, an analysis of the geology and hydrology of the site is not warranted.

3.3 HAZARDOUS MATERIALS/WASTES

Hazardous materials observed on the subject property included waste oil and other petroleum fluids in 55-gallon drums and 5-gallon buckets stored in the open adjacent to the pump house building. The ground around the drums is stained, indicating past leaks or spills. The amount of staining, while greater than *de minimis*, does not indicate a great business environmental risk to the subject property, and could be mitigated with little effort.

3.4 SOLID WASTE

No solid waste, other than miscellaneous trash was observed on the subject property.

3.5 OTHER ENVIRONMENTAL CONCERNS

According to the EDR report and from the search of Federal and state databases no environmental concerns for the following substances were within the appropriate search radii of the subject property:

- Oil/Water Separators
- Medical Biohazard Waste
- Ordnance
- Radioactive Wastes/Radon
- Wastewater Treatment, Collection, and Discharge
- Asbestos
- Transformers/Polychlorinated Biphenyls (PCBs)
- Lead-based Paint

Transformers with unknown PCB content were observed on a concrete pad on the subject property. They appeared to be in good working condition with no visible leaks. A septic tank and drain field was observed on the property, and it appeared to be functioning properly. Sumps are present in the pump building around the motors and pumps.

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4.0 FINDINGS FOR ADJACENT PROPERTIES

4.1 LAND USES

GSRC inspected adjacent areas to the subject property with efforts concentrated on observing existing *recognized environmental conditions* with the potential to affect the subject property.

Adjacent property to the north, south and east is natural wetlands. Adjacent property to the west across the levee is Bayou Segnette. Due to the intervening levee structure, no possible hazardous materials located south or west of the subject property would pose a threat. No *recognized environmental conditions* were observed on any adjacent properties.

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5.0 APPLICABLE REGULATORY COMPLIANCE ISSUES

5.1 LIST OF COMPLIANCE ISSUES AND CORRECTIVE ACTIONS

According to the EDR report (Volume II, Section J) and information gathered from Internet searches, there are no outstanding violations or compliance issues regarding facilities/sites within the search radius surrounding the subject property.

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6.0 OPINIONS & CONCLUSIONS

We have performed a Phase I *Environmental Site Assessment* in conformance with the scope and limitations of ASTM Practice E1527-05 of the subject property. Any exceptions to, or deletions from, this practice are described in Section 7 of this report. This assessment revealed evidence of a minor *recognized environmental condition* in connection with the subject property in the form of oil-filled drums located on the ground outside the pump station building with visible evidence of past leaks to the surrounding soil. The contaminated soil could be remediated with minimal effort, and the drums should be relocated under cover in the pump station building. The EDR report and searches from Federal and state databases yielded no information regarding other environmental conditions on or within the vicinity of the subject property. In addition, none of the orphan sites/facilities listed in the EDR report are located within an appropriate search distance from the subject property to constitute a business environmental risk.

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7.0 DEVIATIONS

No deletions or deviations from ASTM Practice E1527-05 were noted. The lack of a search for use limitations or environmental liens does not affect the subject property, since all indications from other reliable historic sources are that the property was undeveloped swamp prior to construction of the current pump station on the property, and there have been no owners other than the current owner.

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8.0 RECOMMENDATIONS

The *recognized environmental condition* indicated on the subject property would require no further environmental studies or assessments. The 55-gallon drums containing waste oil and stained soil around the drums should be disposed of in accordance with applicable Federal and state regulations. No further environmental assessments or studies are recommended.

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9.0 CERTIFICATIONS

The opinions and conclusions set forth in this report, either expressed or implied, are based solely upon the work and information described herein. No soil, water, or air sampling and analysis were conducted for the subject property; therefore, no statement can be made as to their actual quality. Comments regarding the site reconnaissance and records research results are limited strictly to field observations and the actual records that were reviewed by GSRC. Any opinions concerning the likelihood that the subject property contains toxic or hazardous waste materials are intended solely as a probabilistic evaluation based upon such information. No warranty or guarantee is made or intended. Should any higher level of confidence be desired, physical sampling and laboratory analysis (Phase II of an ESA) would be necessary.

I declare that, to the best of my professional knowledge and belief, I meet the definition of an Environmental Professional as defined in §312.10 of 40 CFR 312, and I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed all of the appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Stephen Oivanki
Project Manager
GSRC

Signature 
Date April 23, 2007

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10.0 REFERENCES

EDR 2007, Westwego #2, 820 South Laroussini Street, Westwego, LA, EDR Radius Map with GeoCheck, I.N. 01870098.6r, March 5, 2007

Environmental Protection Agency (EPA). 2007. Enforcement and Compliance History Online: http://www.epa.gov/echo/> ,and Envirofacts Data Warehouse: http://www.epa.gov/enviro/index_java.html

Louisiana Department of Environmental Quality (LDEQ). 2007. Enforcement Actions. October 2003 to March 2006. http://www.deq.louisiana.gov/portal/tabid/225/Default.aspx

Natural Resource Conservation Service (NRCS) Web Soil Survey 2007, http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

U.S. Army Corps of Engineers, New Orleans Division (USACE) 1963 aerial photograph

USACE 1977, aerial photograph

USACE 1987, aerial photograph

U.S. Geological Survey (USGS) 1951, New Orleans West, Louisiana 7.5-minute Quadrangle

USGS 1954, New Orleans, Louisiana 15-minute Quadrangle

USGS 1965, New Orleans West, Louisiana 7.5-minute Quadrangle

USGS 1967, New Orleans, Louisiana 15-minute Quadrangle

USGS 1998, New Orleans West, Louisiana 7.5-minute Quadrangle

USGS 1998, DOQQ Aerial Photograph, 7.5 minute Quadrangle

USGS 2004, DOQQ Aerial Photograph, 7.5 minute Quadrangle

USGS 2005, DOQQ Aerial Photograph, 7.5 minute Quadrangle

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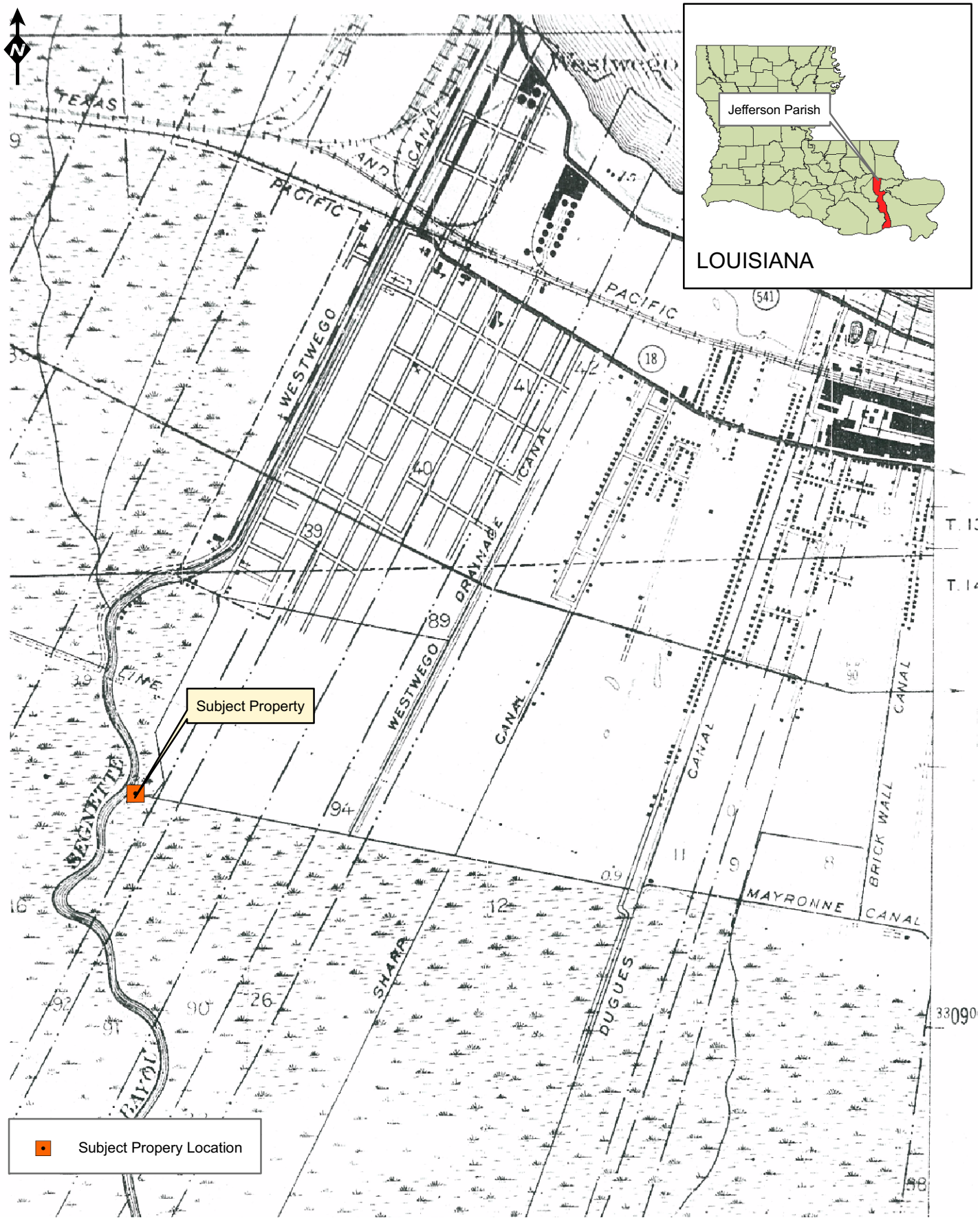
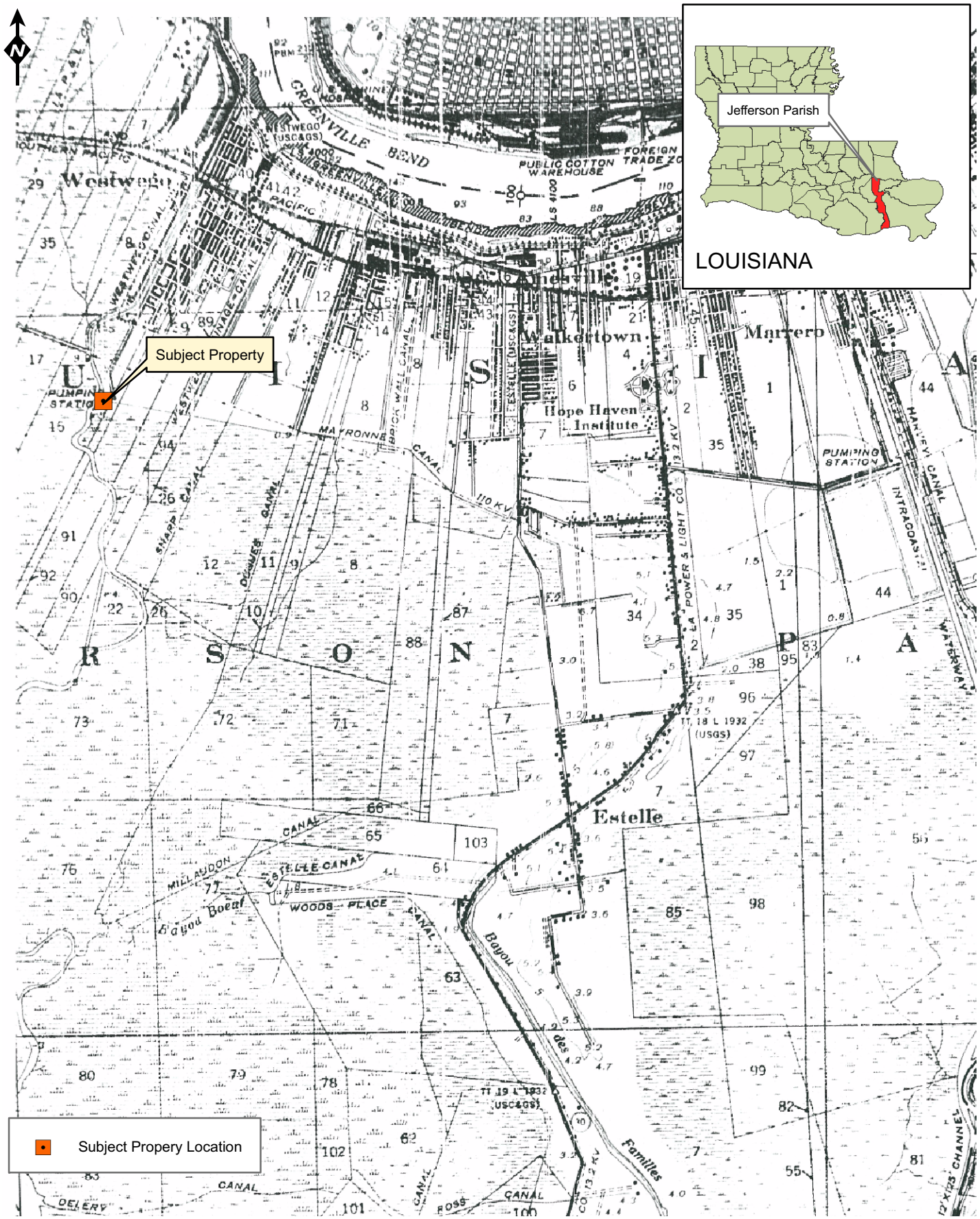
APPENDIX A
HISTORICAL TOPOGRAPHICAL MAPS AND AERIAL PHOTOGRAPHS



Westwego #2 Pump Station
1951 New Orleans West, LA 7.5 minute USGS Topographic Quadrangle

GSRC

March 2007



Westwego #2 Pump Station
1954 New Orleans, LA 15 minute USGS Topographic Quadrangle

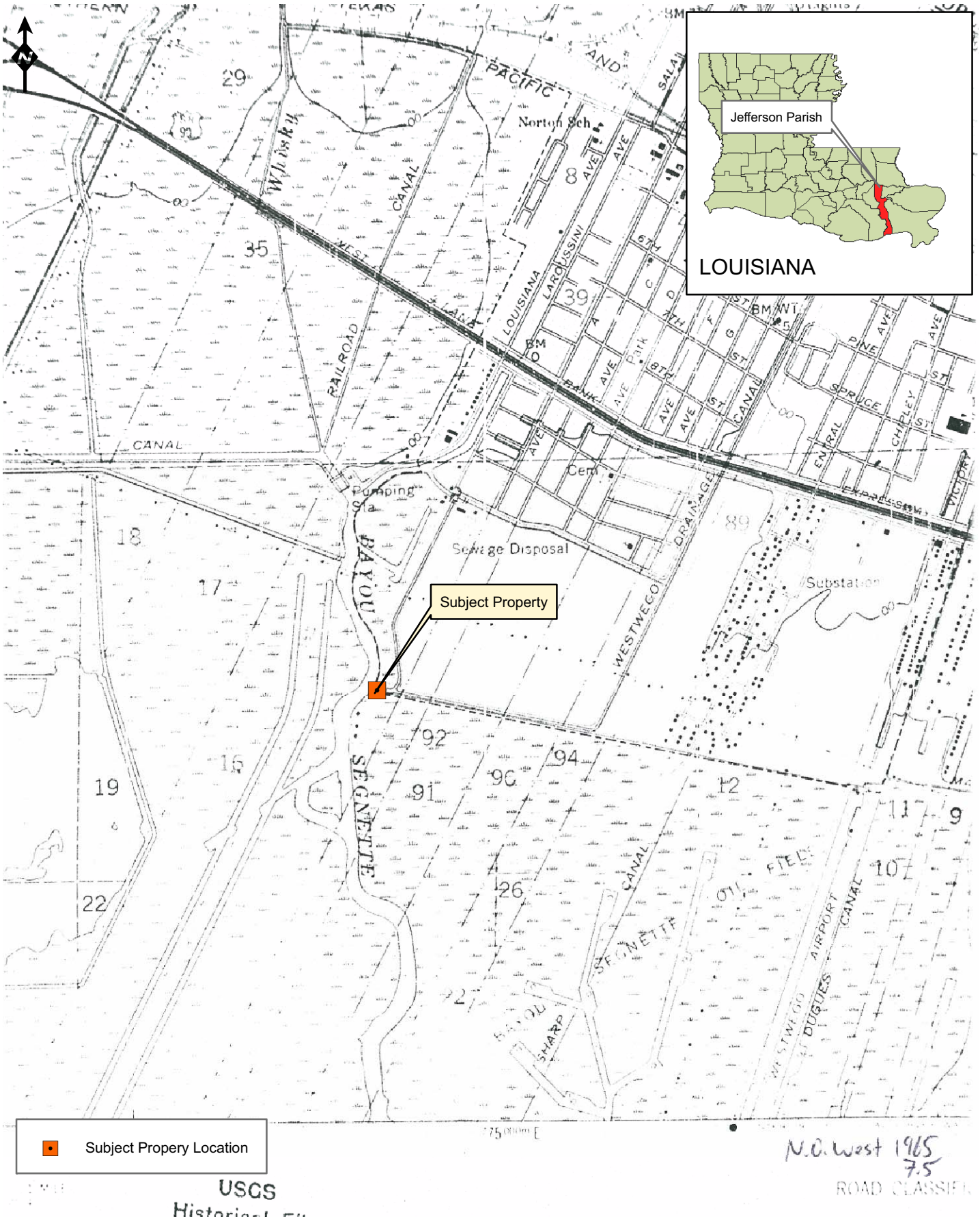
GSRC

March 2007

Westwego #2 Pump Station
1963 Aerial Photography

GSRC

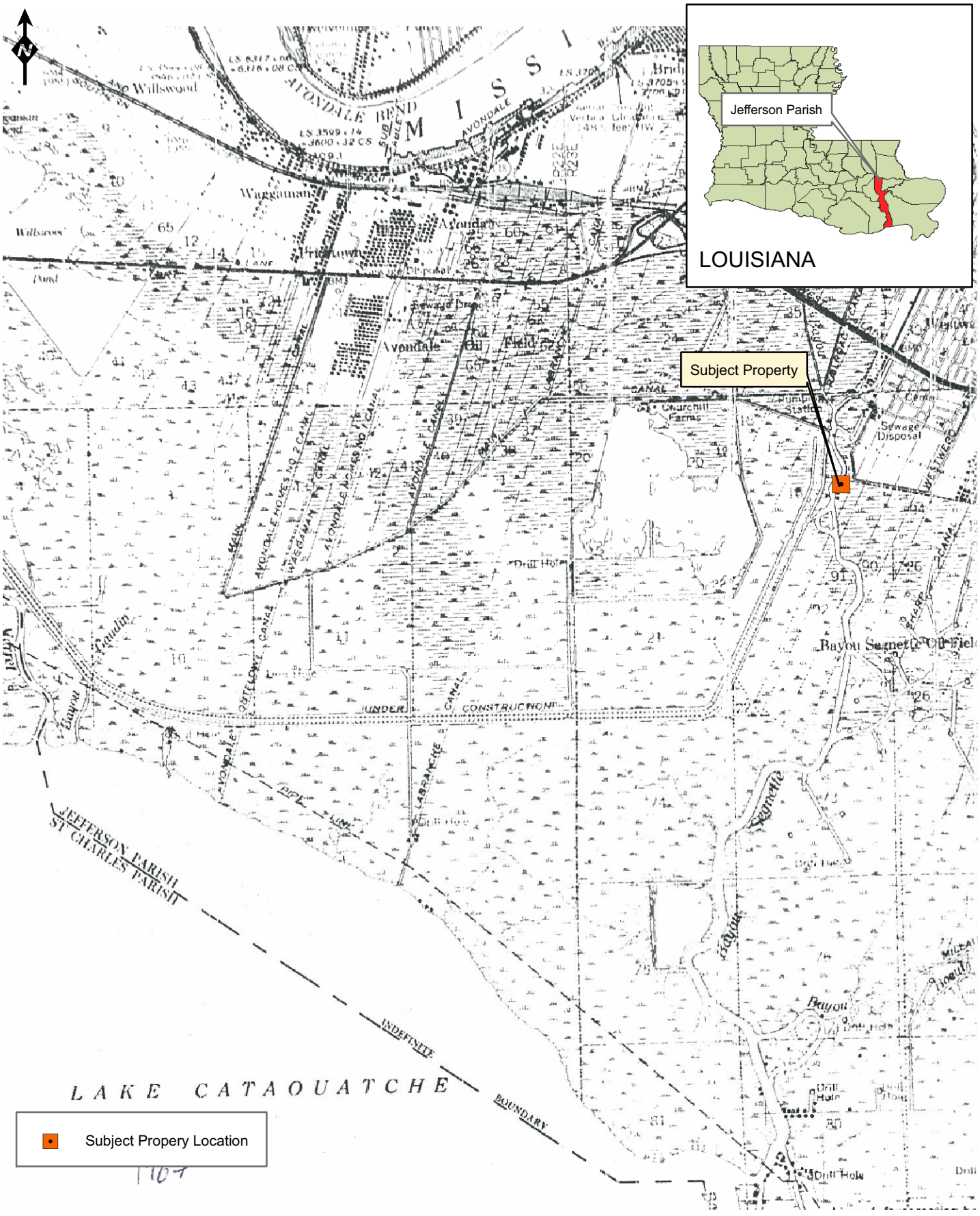
March 2007



Westwego #2 Pump Station
1965 New Orleans West, LA 7.5 minute USGS Topographic Quadrangle

GSRC

March 2007



Westwego #2 Pump Station
1967 New Orleans, LA 15 minute USGS Topographic Quadrangle

GSRC

March 2007

Westwego #2 Pump Station
1977 Aerial Photography

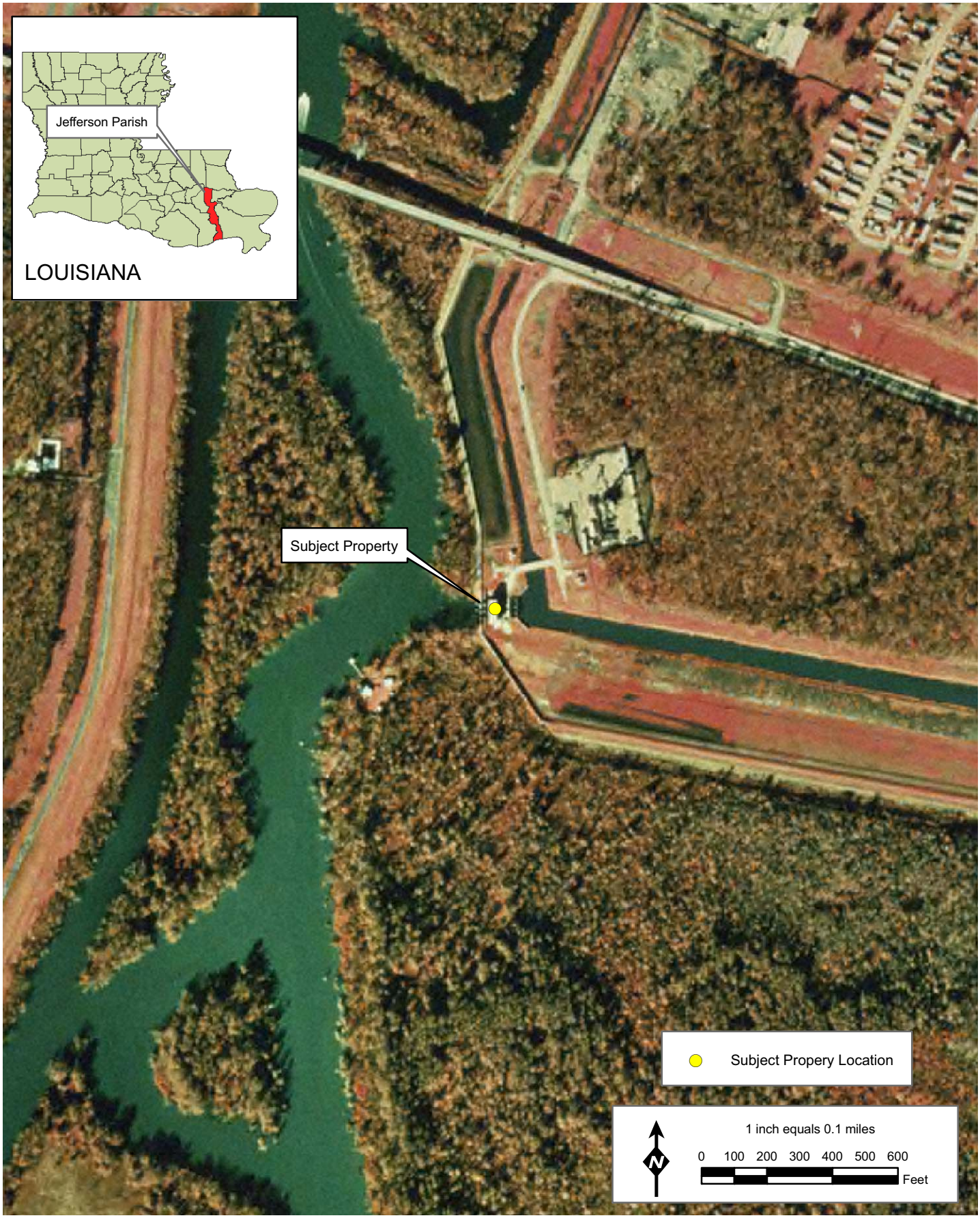
GSRC

March 2007

Westwego #2 Pump Station
1990 Aerial Photography

GSRC

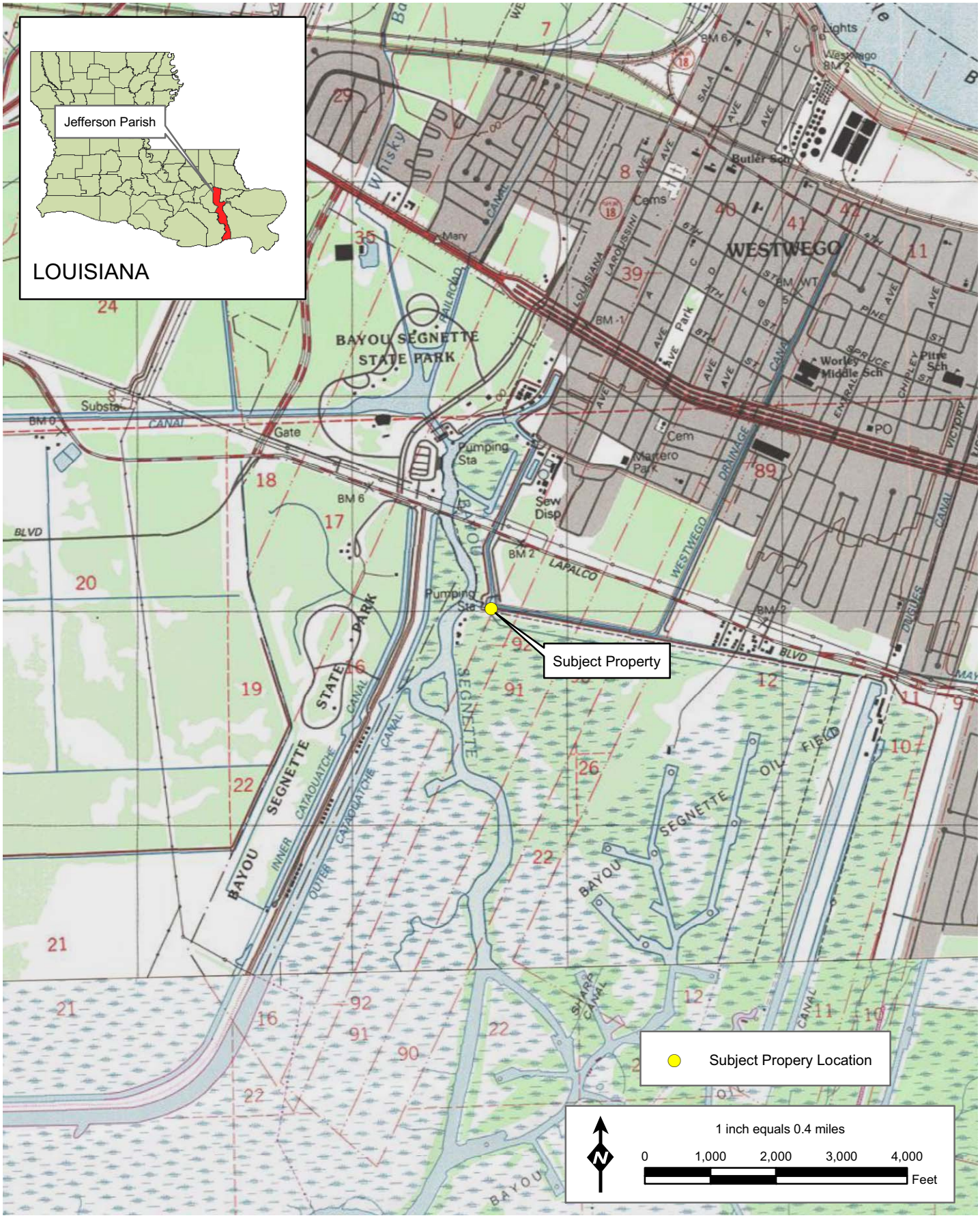
March 2007



Westwego #2 Pump Station
1998 New Orleans West, LA USGS DOQQ

GSRC

March 2007



Westwego #2 Pump Station
1998 New Orleans West, LA USGS Topographic Quadrangle

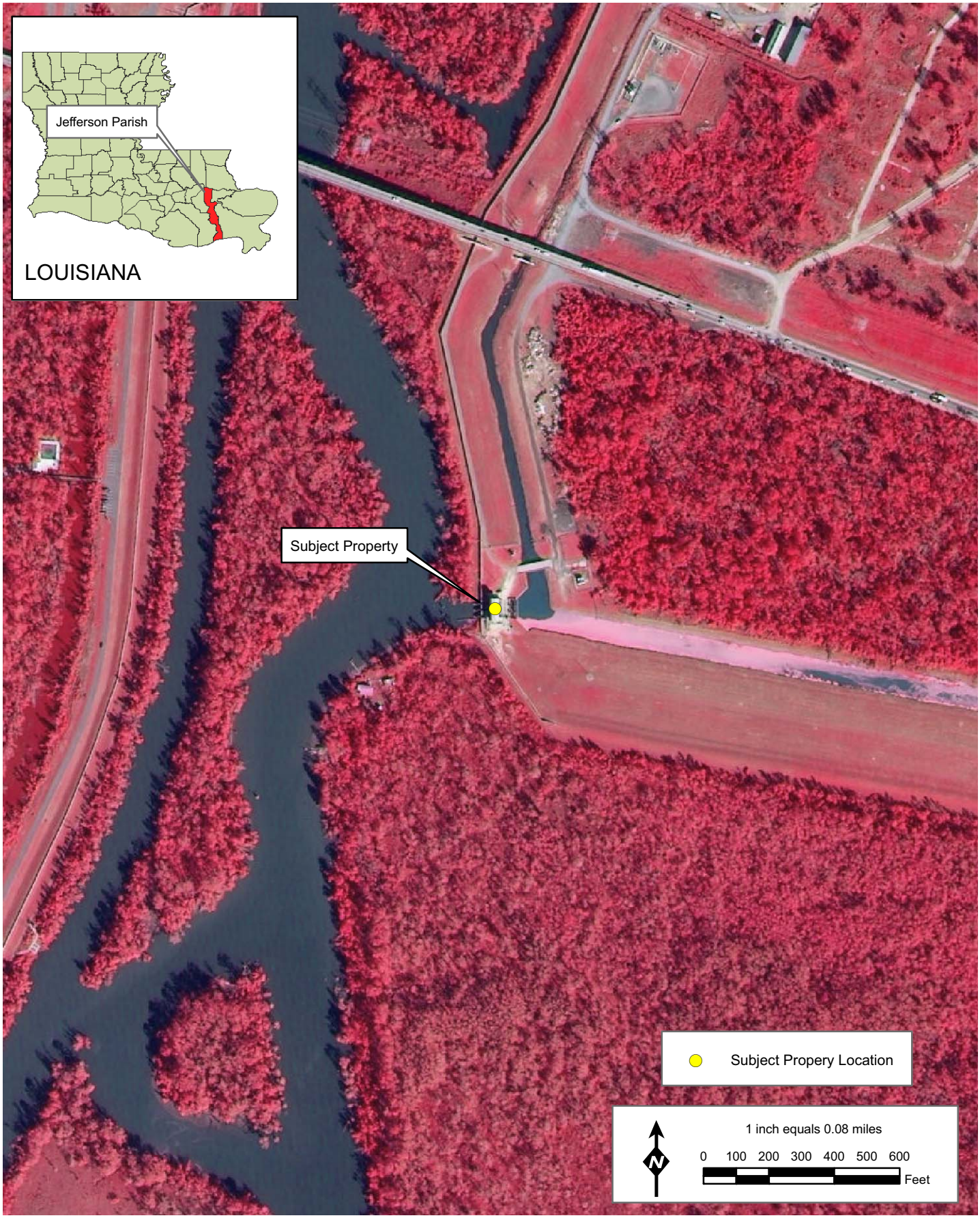
GSRC

March 2007

Westwego #2 Pump Station
2004 New Orleans West, LA USGS DOQQ

GSRC

March 2007



Westwego #2 Pump Station
2005 New Orleans West, LA USGS DOQQ

GSRC

March 2007

APPENDIX B
SITE PHOTOGRAPHS

SITE PHOTOGRAPHS

Photograph 1. Subject property, view to the west

Photograph 2. Propane tank on subject property

Photograph 3. Westwego pump station, view to the southwest

Photograph 4. Waste oil drums and stained ground adjacent to station

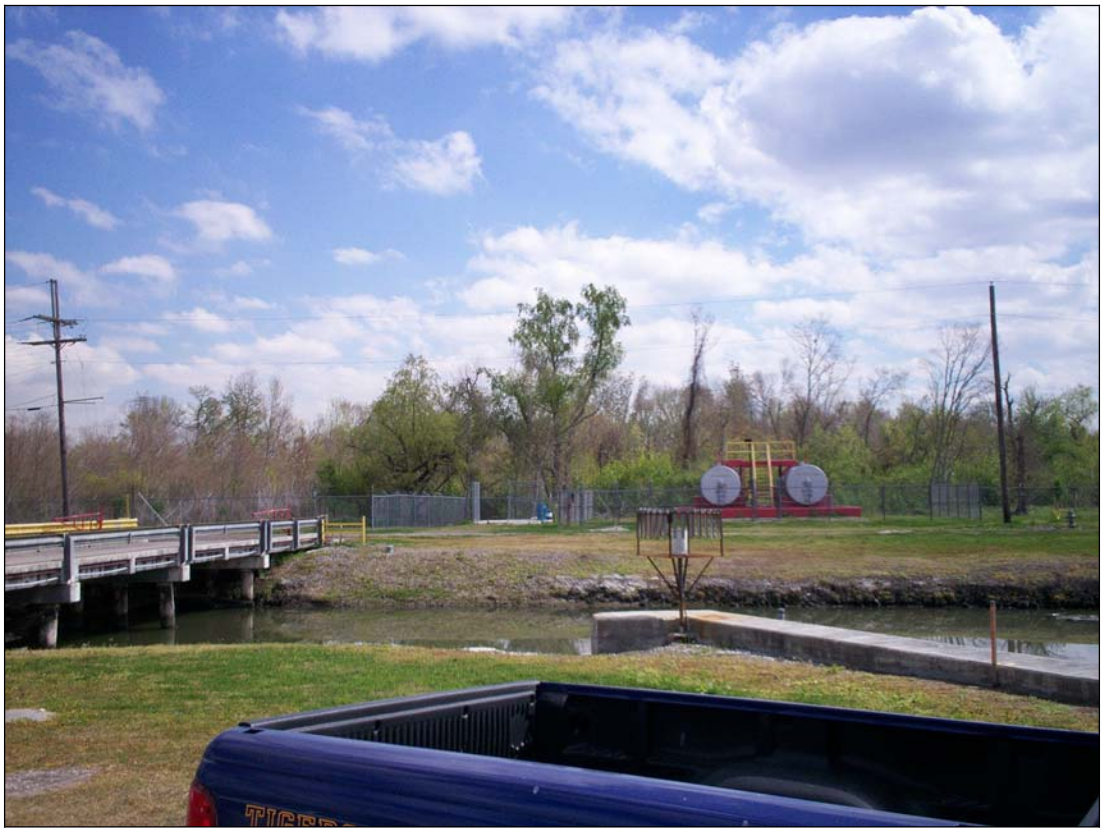
Photograph 5. Waste oil drums and stained ground surface adjacent to station

Photograph 6. Connex storage container on subject property

Photograph 7. Transformers on subject property

Photograph 8. Drums and staining on concrete storage yard pad

Photograph 9. Diesel storage tanks and containment basin



Photograph 10. View to the east of adjacent property

Photograph 11. View to the west of adjacent property and Bayou Segnette

Photograph 12. Drums adjacent to pump station motors

Photograph 13. Waste oil drum and cleaner, stained soil adjacent to station

Photograph 14. Diesel day tank inside pump station

Photograph 15. Lubrication oil container on subject property

Photograph 16. Oil drum inside pump station

APPENDIX C
LIST OF PREPARERS

The following people were primarily responsible for preparing this report.

Name	Discipline/Expertise	Experience	Role In Preparing Report
Stephen Oivanki	Geologist Environmental Assessment	20 years of environmental assessment and remediation experience	Project manager, ESA preparation, field survey
Greg Lacy	Environmental Studies	10 years of environmental, natural resource, ESA, and NEPA studies	Field Survey
Denise Rousseau Ford	Environmental Engineering	15 years of environmental studies experience	Field Survey
Maria Reid	Forestry and Environmental Studies	5 years of environmental assessment and NEPA experience	Field Survey
Sharon Newman	GIS/Graphics	5 years GIS analysis	GIS and Graphics
David Alford	GIS/Graphics	4 years GIS/graphics experience	GIS and Graphics
Eric Webb, Ph.D.	Ecology/Wetlands	15 years NEPA and natural resources related studies	QA/QC

APPENDIX D
PERSONNEL QUALIFICATIONS

STEPHEN M. OIVANKI, P.G.
Qualified Environmental Professional (ASTM E1527-05)
Statement of Qualifications

Education: B.S. – Geology – Louisiana State University
M.S. – Geology – Louisiana State University

Training: HAZWOPER – 40-hour hazardous waste responder, current refresher
USACE 1997 Wetland Delineation Manual – 40-hour course
Mold Assessment and Remediation in Buildings – Training Course

Registrations: Registered Professional Geologist #412 – State of Mississippi

Experience: **Self-employed Consulting Geologist – 10 years**
Oil and gas exploration, subsurface site investigations, mining exploration, engineering geology

Mississippi Department of Environmental Quality – 9 years
Subsurface geology, subsurface site investigations, coastal geology and geomorphology

Mississippi Department of Marine Resources – 3 years
Coastal Zone Manager, supervision of environmental staff, oversight and review of Coastal Zone permits and environmental regulations

Compton Engineering, Inc. – 5.5 years
Phase I Environmental Site Assessments – 40
Phase II Environmental Site Assessments – 12
Emergency Response Action Contractor – Miss. LUST Trust Fund
LUST investigations and remediation – 5
Contaminated site investigations and remediation – 7
Wetland delineations – 50
Mold assessments and remediation supervision – 10
Spill Prevention Control and Countermeasure (SPCC) plans – 12
Rubbish and Subtitle D Landfill permits – 5
Storm Water Pollution Prevention Plans - 20

Gulf South Research Corporation – 6 months
Phase I Environmental Site Assessments - 13

GREGORY B. LACY
Qualified Environmental Professional (ASTM E1527-05)
Statement of Qualifications

Education: B.S.-Biology-Georgia Southwestern State University
M.S.-Biology-Georgia College and State University

Training: HAZWOPER-40-hour hazardous waste responder, current refresher.
HAZWOPER-8-hour Training for Supervisors
EPA Watershed Management - Training Certificate
Lead Supervisor - Training Course

Experience: **DDL Omni Engineering - 5 years**
Petroleum, oil, lubricant remediation, Chemical and biological decontaminations, Spill response, Hazardous waste management, Waste minimization.

Gulf South Research Corporation - 2 years
Phase I Environmental Site Assessments - 15

DENISE ROUSSEAU FORD
Qualified Environmental Professional
Statement of Qualifications

Education: M.S., Civil and Environmental Engineering, Louisiana State University
B.S., Geology, Louisiana State University

Training: HAZWOPER – 40-hour hazardous waste responder

Professional Organizations: Louisiana Brownfields Association (LBA) charter and founding member, 2006-2007 acting Executive Director

Experience: **Gulf South Research Corporation – 3 months**
Performs NEPA EA investigations and Phase I ESAs

Louisiana State University – 11 years
Preformed numerous technical reviews of Phase I and Phase II environmental site assessments, and cleanup action plans for non-profit organizations and municipalities involved in Brownfields transactions.

Performed technical reviews of various Superfund documents (including PAs, PA/SIs, RI/FSs and others) at sites in Corpus Christi, TX; Lake Charles, LA; Alsen, LA and other sites throughout EPA Region 6.

GDC Engineering – 3 years
Worked as an environmental geologist and project manger in the field of hazardous waste remediation. Specific projects included groundwater investigations at Deltech, in Baton Rouge, LA and DOW Chemical in Plaquemine, LA.

MARIA BERNARD REID
Environmental Professional
Statement of Qualifications

Education: B.S. – Forest Management – Louisiana State University
M.S. – Agricultural Economics and Agribusiness, Natural Resources Policy and Environmental Management and Planning – Louisiana State University

Training: HAZWOPER – 40-hour hazardous waste responder, current refresher
USFWS Endangered Species Act Section 7: Interagency Consultation Training – 40-hour course
Wetland Delineator Training – 40-hour course

Experience:

Soil and Water Conservation District: Washington County, Arkansas – 2 years
Beaver Lake/White River Water Quality Technician – Prepared nutrient management plans for area ranchers, and planned and implemented Best Management Practices for nutrient management and water quality and soil erosion protection.

Gulf Engineers and Consultants: Baton Rouge, Louisiana – 1.5 years
Environmental Scientist – Conducted wetland delineations and threatened and endangered species surveys and prepared NEPA documents.

Gulf South Research Corporation – 3 years
Natural Resources - Conducted wetland delineations, threatened and endangered species surveys, and environmental site assessments, and prepared NEPA documents.

APPENDIX E
CONTACT REPORTS

Phone Log/Contact Report

Project No.:	80600105s	Date:	3-7-07	Time:	10:15 am
Project Name:	Jefferson Parish Stormproofing				
Employee:	Maria Reid	Person Contacted:	Allen Babb		
Organization:	Jefferson Parish Drainage Dept.	Telephone No.:	Direct contact		
Reason for Call/Topics Discussed:	To discuss station operations and history – Westwego Station				
Copies to:	file				

Comments: Mr. Allen Babb, pump station Operator 2, was interviewed during the site visit. He has worked for Jefferson Parish for 8 years, and 3 years at the Westwego #2 pump station. He stated that the station was built in 1983, and pointed out that date in the cement slab of the station. He had no knowledge of what was on the site prior to the pump station. There have been no known spills at the site. The station is on city water for potable water supply, and an on-site well is used for emergencies only. There are two diesel pumps and one electric pump at the station. The electric pump is scheduled to be replaced by a diesel pump in 2007. There are three 300-gallon day tanks at the station, but only two are used. The propane tank is used to heat the office area of the station. A SPCC plan is on site, as well as spill cleanup and containment materials. Exxon Dynagear is used as a lubricant, and all engine oil is stored inside the station in 55-gallon drums. The Connex container is used to store gasoline, lawn maintenance equipment and paint. Hurricane Katrina did not flood the station.

Decisions/ Agreements Reached:

Action Items: