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## INTRODUCTION AND FORMAT

This composite report is prepared for the U.S. Army Corps of Engineers (USACE), New Orleans District (MVN), Hurricane Protection Office (HPO) in order to assess any existing or past environmental risk associated with pump station properties and canal bank corridors proposed for stormproofing activities by the USACE to provide flood, hurricane and storm damage reduction for the east and west banks of Jefferson Parish. In order to accomplish this task, it was necessary to assess 12 individual pump station sites and two canal corridors (Figure 1) in accordance with the American Society for Testing and Materials (ASTM) E1527-05 Standard, which defines good commercial and customary practices in the U.S. for conducting an environmental site assessment (ESA) 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).

Each of the ESAs for the pump stations was developed individually to meet the ASTM standard, and the two canal corridors were assessed as supplemental ESAs between the paired pump stations associated with each canal corridor.

This composite report is organized into two volumes. There are 14 individual sections in Volume 1, comprising individual ESAs. Each section has its own figures and appendices, and each ESA can stand alone on its own merits. Volume 2 contains the individual Environmental Data Resources (EDR) reports for each ESA showing the results of searches of Federal and state environmental databases. At the request of the USACE, the User for this report, no title searches or recorded document searches were conducted for environmental liens or covenants. Instead, since all of the properties involved have been owned by Jefferson Parish, usually since the early 1900s, property owner interviews and other historical source investigations were substituted for title searches in order to conserve time and effort required for preparation of this report.

## COMPOSITE SUMMARY OF ASSESSMENT RESULTS

This summary will present a discussion of all of the pump station sites and canal corridors assessed in this report, with particular emphasis on those sites which contain *recognized environmental conditions* or other concerns that would require remediation action, cleanup or modification of site operations.

Overall, none of the sites or corridors contain major environmental risk conditions that would prevent installation of new buildings or equipment, or that would require additional assessments involving soil or groundwater sampling and analysis. Several of the pump station sites do contain minor amounts of soil contamination, primarily from spillage of used oils and other lubricants that would require some cleanup and removal of contaminated soils. A change in normal operational procedures at those sites would eliminate any further possibility of similar contamination in the future.

There is an observed difference in operational procedures between pump stations on the east bank and those on the west bank. All of the east bank pump stations store drums of lubricating oil, grease and paints, as well as containers of used oil and antifreeze under cover in the main pump station building or inside closed storage sheds or containers. This eliminates the possibility of petroleum products leaking or spilling on the bare ground or being impacted by storm water runoff. Most of the west bank pump stations store new and used oil and lubricants, and sometimes paint containers on the ground adjacent to other buildings, and all of the minor contamination problems encountered in this assessment are the result of that practice.

Additionally, the east bank pump stations normally recycle used oil and other fluids within a short time after they are collected in drums or storage tanks. Some of the west bank pump stations appeared to have an inordinately large amount of used oil on the site in drums, and sometimes open containers, which contributes to the possibility for leakage of used oil onto the ground.

Table 1 below summarizes the results of the individual site assessments conducted for this report.



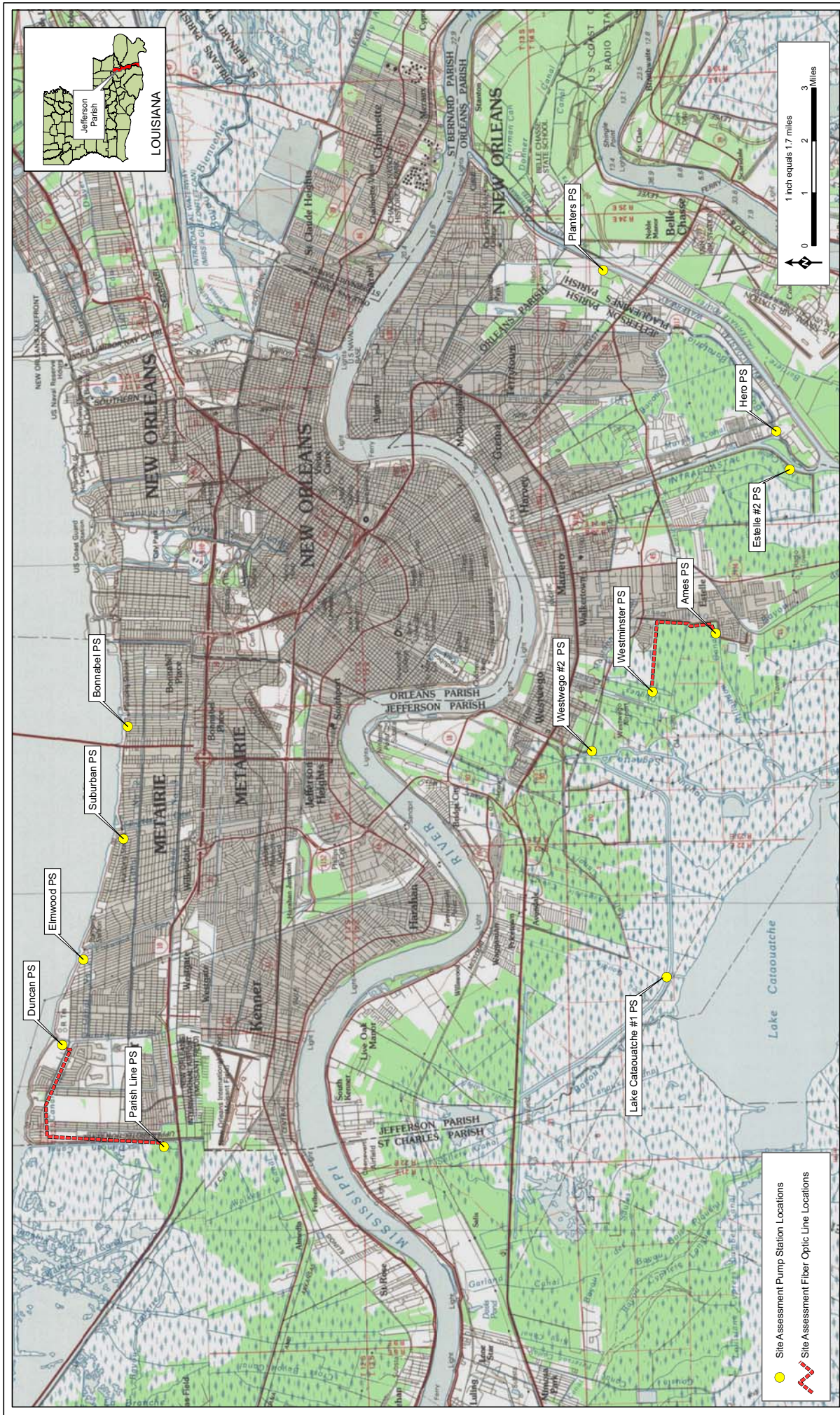


Figure 1: Jefferson Parish Pump Stations - Site Assessment Locations





Table 1. Summary of Phase I Environmental Site Assessments – Jefferson Parish Pump Stations and Canal Corridors

Site Name	Site Location	Assessment Options	Assessment Recommendations
Ames Pump Station	West Bank, Marro	No further assessment or studies required. Minor environmental contamination due to leakage of used oil into soils on the site. Outside storage of used oil containers.	Excavation and disposal of contaminated soils on the site is recommended. Used oil containers should be kept under cover to prevent storm water contact. Leaked oil on pump station floor should be cleaned up. Used oil should be removed from the site to prevent future contamination due to leaks.
Bonnabel Pump Station	East Bank, Metairie	No further assessment or studies required.	No recommendation for further action.
Duncan Pump Station	East Bank, Kenner	No further assessment or studies required.	No recommendation for further action.
Elmwood Pump Station	East Bank, Metairie	No further assessment or studies required.	No recommendation for further action.
Estelle Pump Station	West Bank, Harvey	No further assessment or studies required.	No recommendation for further action.
Hero Pump Station	West Bank, Harvey	No further assessment or studies required.	Excavation and disposal of contaminated soils on the site is recommended. Generator exhaust should be redesigned to prevent future ground contamination by oil mist in the exhaust.
Lake Cataouache Pump Station	West Bank, Avondale	No further assessment or studies required. Minor environmental contamination due to leakage of used oil into soils on the site, and containers and other hazardous items should be kept under cover to prevent storm water contact. Used batteries and open containers of oil stored outside on bare ground, exposed to storm water contact.	Excavation and disposal of contaminated soils on the site is recommended. Used oil containers should be kept under cover to prevent storm water contact.
Parish Line Pump Station	East Bank, Kenner	No further assessment or studies needed.	No recommendation for further action.
Planters Pump Station	West Bank, Belle Chase	No further assessment or studies needed.	No recommendation for further action.
Suburban Pump Station	East Bank, Metairie	No further assessment or studies needed.	No recommendation for further action.
Westminster Pump Station	West Bank, Marro	No further assessment or studies needed.	No recommendation for further action.
Westwego Pump Station	West Bank, Westwego	No further assessment or studies needed.	The disposal of waste oil drums and adjacent contaminated soils is recommended. Waste oil drums should be stored under cover to prevent future storm water contact.
Ames-Westminster Corridor	West Bank, Marro	No further assessment or studies needed.	No recommendation for further action.
Duncan-Parish Line Corridor	East Bank, Kenner	No further assessment or studies needed.	No recommendation for further action.



**FINAL**

**PHASE I  
ENVIRONMENTAL SITE ASSESSMENT**

**Ames 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**  
**Ames 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 Ames Pump Station property (hereafter referred to as the subject property), owned by Jefferson Parish. The 8.6-acre parcel is located at the west end of the Millaudon Canal at 5100 Rochester Drive, Marrero, Louisiana. The subject property is currently a developed site with an established drainage pump station, office trailers, storage facilities, and an equipment yard.

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 several minor *recognized environmental conditions* related to operations of the pump station facility that may affect the subject property. While these conditions do not result in major impacts to the property, they are noted here for reference in relation to future activities and infrastructure that may be installed later.

**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**

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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 5100 Rochester Drive, Marrero, Louisiana at the west end of the Millaudon 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.

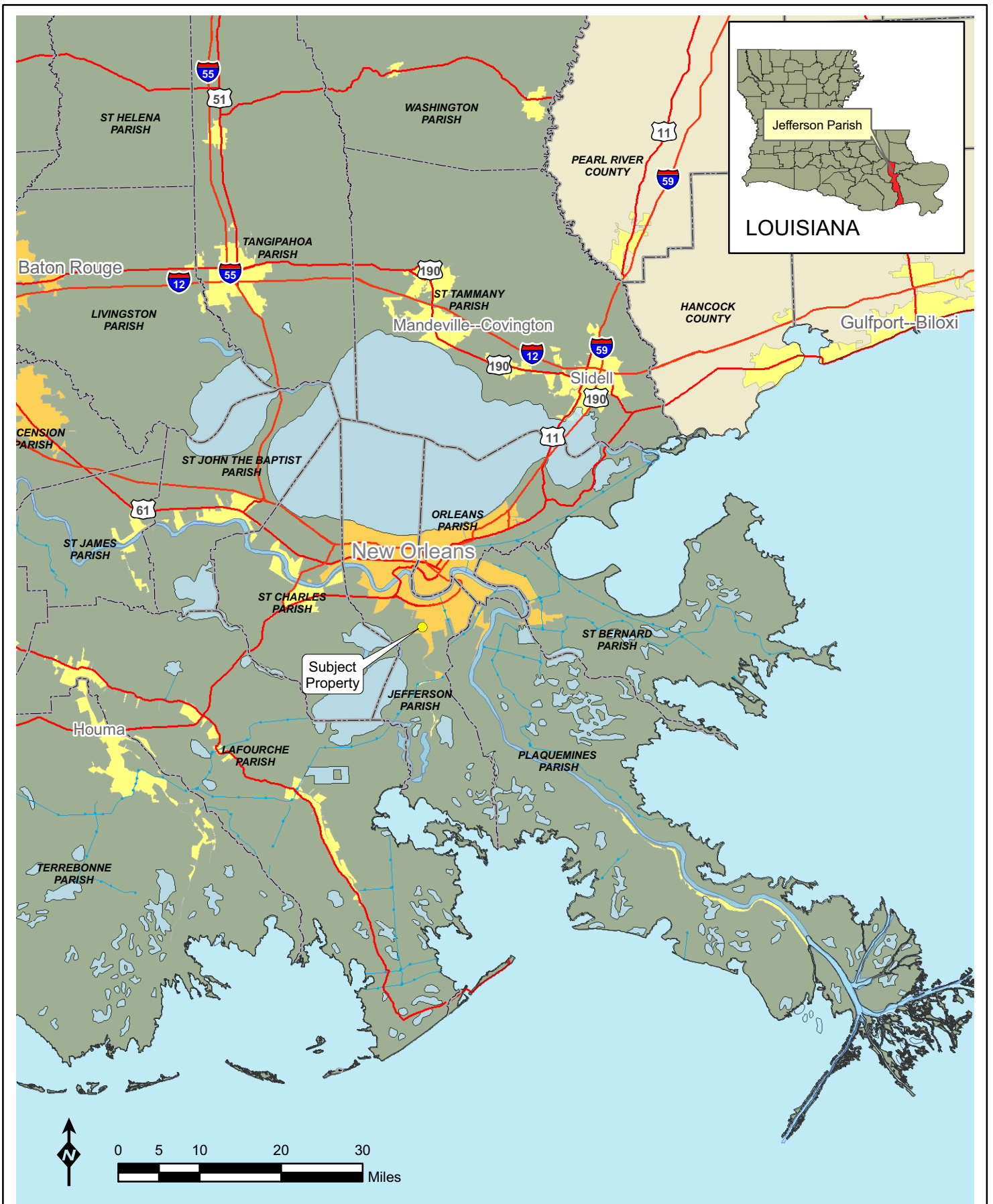


Figure 1: Vicinity Map



March 2007



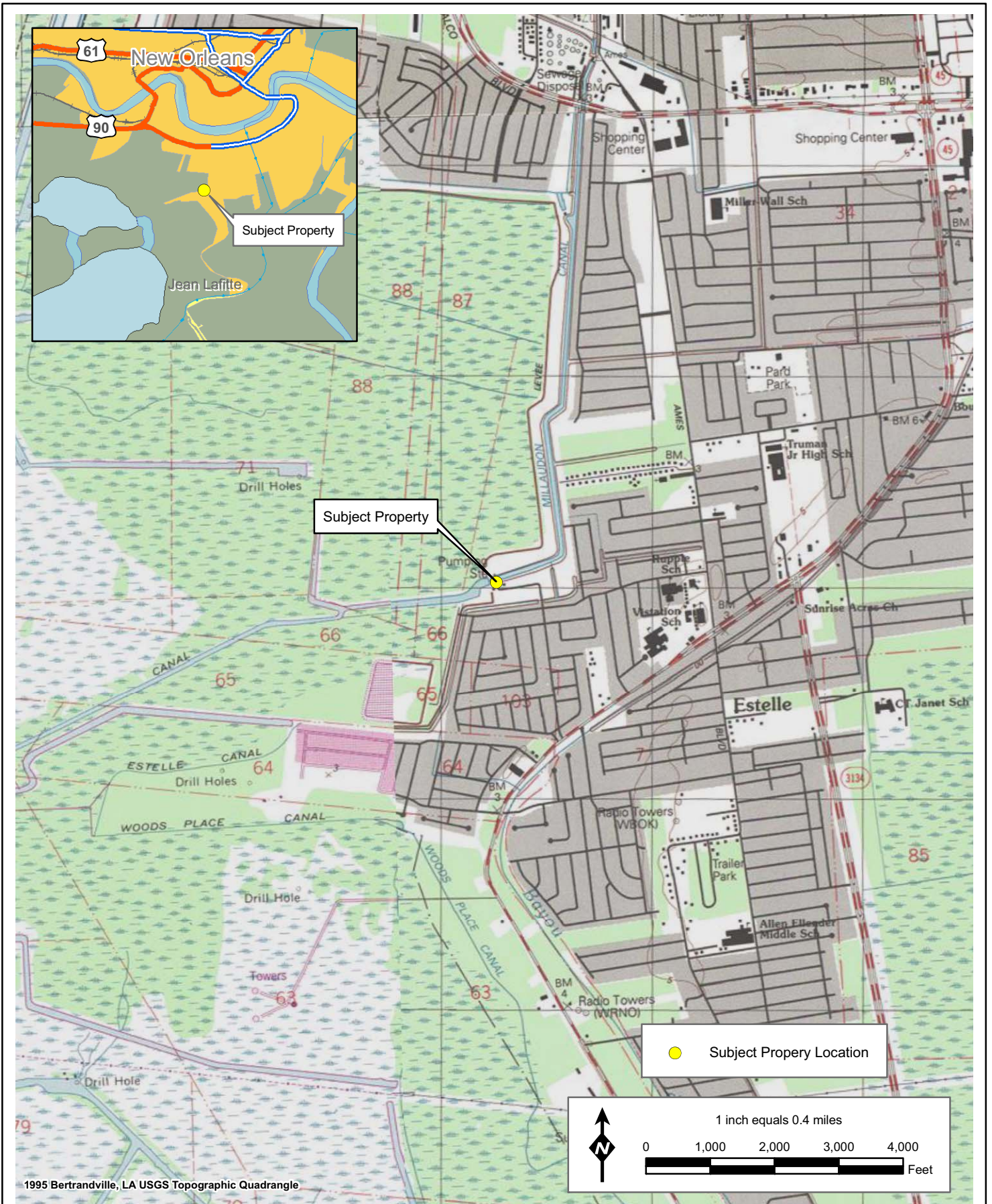


Figure 2: Ames Pump Station Location



March 2007





Figure 3: Ames Pump Station Area



March 2007



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## 2.0 SURVEY METHODOLOGY

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### 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 indicate 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, ground water, 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 and other historical data 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 for the Ames to Westminster Pump Stations corridor, showing all information pertaining to the database searches, is presented in Volume II (A) of this report. A summary listing of the Federal and state databases searched can be found on pages 1 and 2 of the Map Findings 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 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 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 are located within the minimum appropriate search radius of the subject property that would result in an environmental risk to the subject property.

### 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 1995. Historic aerial photographs were available from 1968 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.

**Table 1. Historical Topographic Quadrangles/Aerial Photographs Reviewed**

DATE	QUADRANGLE/PHOTOGRAPH NAME	SCALE
1891	New Orleans, LA 15-Minute Quadrangle	1:64,000
1932	New Orleans, LA 15-Minute Quadrangle	1:64,000
1938	Bertrandville, LA 7.5-Minute Quadrangle	1:24,000
1947	Bertrandville, LA 7.5-Minute Quadrangle	1:24,000
1950	New Orleans, LA 15-Minute Quadrangle	1:64,000
1951	Bertrandville, LA 7.5-Minute Quadrangle	1:24,000
1954	New Orleans, LA 15-Minute Quadrangle	1:64,000
1966	Bertrandville, LA 7.5-Minute Quadrangle	1:24,000
1967	New Orleans, LA 15-Minute Quadrangle	1:64,000
1968	Aerial Photograph	---
1987	Aerial Photograph	---
1990	Aerial Photograph	---
1995	Bertrandville, LA 7.5-Minute Quadrangle	1:24,000
1998	Aerial Photograph	---
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

### Sanborn Insurance Maps

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

## 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 of the pump station is shown in Figure 5. A site reconnaissance was conducted on March 7, 2007 by Stephen Oivanki. The focus of the effort was to investigate the subject property for visual 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. It also serves as the primary field office and equipment storage yard for the Jefferson Parish Drainage Department.

The subject property consists of approximately 8.6 acres. There are numerous structures on the property, both permanent and temporary, and 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 west end of the Millaudon Canal, and it discharges into an unnamed canal on the opposite side of the levee. The subject property is bonded on the north and west by the flood levee and undeveloped swamp and wetlands. It is bounded on the south and east by residential neighborhoods across the Millaudon canal. The Mt. Kennedy pump station is located southwest of the subject property approximately 500 feet. It is a smaller pump station, and no inspection was made of that site, since it is located down-gradient from the subject property and also owned by Jefferson Parish.

On the subject property, there are numerous Connex containers, most of which are locked. The operator on duty at the time of the site visit did not have keys to most of the storage containers. One container north of the station was unlocked, and contained numerous paint, oil and other flammable liquids containers, some of which showed evidence of past leaks (see Photograph 2, Appendix B). According to the operator of the station, the other storage containers contain spare parts, electrical equipment, paint and documents.

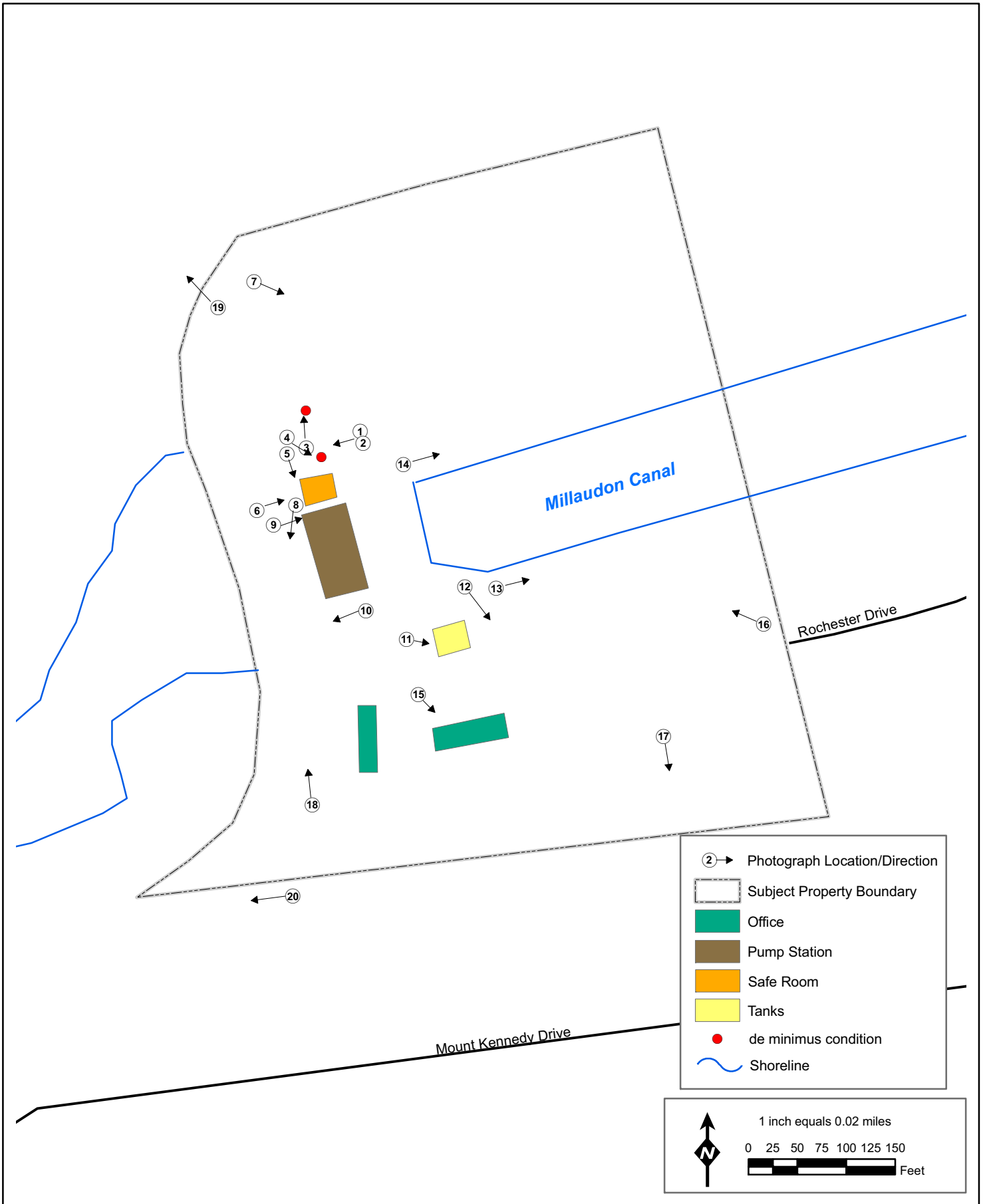


Figure 4: Survey Map of Ames Pump Station



March 2007



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There were numerous old 55-gallon drums around the property, primarily behind the storage areas, which contained evidence of petroleum liquids contents (see Photographs 3 and 4, Appendix B). There was also evidence of dead and discolored vegetation adjacent to one of the containers. There was an empty diesel storage tank adjacent to the west levee wall, which was described as being under repair for a leak (Photograph 8, Appendix B).

There was a large stack of used tires and wheels adjacent to the intake canal on the subject property (see Photograph 14, Appendix B). The used and spare equipment storage yard between the north levee and the Millaudon Canal contains a large amount of old equipment, vehicles and containers (Photograph 7, Appendix B). None of the equipment observed in the storage yard constituted an environmental risk to the subject property.

Lubricating oils, greases and some paint are stored inside the pump building, as shown in Photographs 21 and 22 in 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 (Photograph 23, Appendix B).

Diesel fuel storage for the station pump engines is contained in four vertical storage tanks with a combined capacity of 40,000 gallons (Photographs 11 and 12, 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 no water well on the property, and auxiliary cooling water for the pump engines is supplied by siphon from the adjacent canals.

## **2.6 PERSONAL INTERVIEWS**

### **Station Operator**

On March 7, 2007, GSRC interviewed the Ames Pump Station operator, Mr. Randy Rivero, who has been with the Jefferson Parish Department of Drainage since 1985, primarily based at the Ames Station. He recalled when the Ames Station was built, and the land was undeveloped swamp prior to construction of the canal and the pump station in around 1985-1986. He stated that there had been no oil or fuel spills on the property since he has been employed there. The

Ames Station does not keep hazardous materials on site, other than maintenance paint in 5-gallon buckets for the equipment. Used oil is recycled to 55-gallon drums, which are disposed of by a licensed transporter. The transformers and substation on the site are used to power the electric motors at the station. The substation is owned and serviced by the local power company, and there is no indication of PCB content in the transformers. The safe room to provide hurricane protection for pump operators was constructed in 2006.

### **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.

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## **3.0 FINDINGS FOR SUBJECT PROPERTY**

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### **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 1995, and aerial photographs from 1968 to 2005 (Appendix A), were inspected to identify structures and development on the subject property and surrounding properties. All of the maps dated prior to 1995 showed no development on the subject property. All aerial photographs dated prior to 1987 also showed no development on the subject property. The first indication of development of the subject property and the adjacent residential areas to the east and south appeared on the 1987 aerial photograph. In 1987, the Ames Pump Station had been completed, and the adjacent residential neighborhoods to the south and east had also been completed. The Mt. Kennedy Pump Station was also shown on the 1987 aerial photograph, but no buildings were indicated on that site.

The 1990 aerial photograph indicated no change on the subject property or surrounding properties from 1987. The 1995 topographic map confirmed the same structures and pump stations shown in the 1990 aerial photograph. The 1998 aerial photograph indicated additional drainage canals on the subject property from the adjacent neighborhoods, and a large equipment storage area had been added north of the Millaudon Canal. A parking area and additional shell drives were also added south of the pump station.

The 2004 aerial photograph showed the subject property in essentially its current configuration, with the large equipment yard, numerous storage containers, trailers and parking areas. The Mt. Kennedy pump station was shown with additional infrastructure and buildings.

The 2005 aerial photograph indicated little change from 2004. The ditch south of the subject property had been lined with concrete, as shown in Photograph 20 in Appendix B.

## 3.2 CURRENT USE

### Environmental Setting

The subject property is located at 5100 Rochester Drive in Marrero, Louisiana across a drainage canal from residential neighborhoods located to the south and east. The entire property appears to be disturbed, and the ground cover consists of maintained turf vegetation and shell/gravel surfaces. All of the adjacent waterways (canals) appear manmade. The undeveloped areas west and north of the subject property appear to be natural swamps and wetlands with native vegetation. A manmade earthen levee with concrete top walls separates the subject property from wetlands located to the west and north.

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 and waste were observed on the subject property, including numerous 55-gallon drums and 5-gallon buckets of used oil, lubricants, paint and thinners stored in the open behind buildings, inside storage buildings and inside the main pump building. Several indications of small petroleum product spills were noted around the stored drums and buckets outside on the property. None of the observed spills seemed to indicate a great environmental risk, but they appeared to be larger than *de minimis* in size. The large stack of used tires observed on the property does not constitute a business environmental risk, but disposal should follow state guidelines for used tires.

### **3.4 SOLID WASTE**

Solid waste was observed on the subject property in the form of old metal parts, electric motors and equipment. While some equipment may be reusable, some materials observed were obviously discarded. None of the solid waste observed constituted a business environmental risk to the 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 activities and 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 in a fenced and locked enclosure on the 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, and abundant trash and some oil sheen were observed in the water near the pump intake pipes.

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## **4.0 FINDINGS FOR ADJACENT PROPERTIES**

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### **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.

The adjacent property to the west and north, across the levee is natural swamp and wetlands. The adjacent property to the south and east is developed with single-family residential neighborhoods. No *recognized environmental conditions* were observed on any adjacent properties.

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## **5.0 APPLICABLE REGULATORY COMPLIANCE ISSUES**

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### **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

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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 minor *recognized environmental conditions* in connection with the subject property in the form of oil-filled drums and other containers located outside in several areas of the property. The spills observed around these containers, while greater than *de minimis*, do not pose a significant business environmental risk to the subject property, and could be remediated with minor effort. 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**

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No deletions or deviations from ASTM Practice E 1527-05 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**

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GSRC recommends that the drums and containers of petroleum products and paint stored outside be brought under cover or disposed of in accordance with state and Federal regulations. The observed spills around the containers and drums should be mitigated by removing and disposing of contaminated soils. 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**

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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

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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](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) 1968 aerial photograph

USACE 1987, aerial photograph

USACE 1990, aerial photograph

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

USGS 1932, New Orleans, Louisiana 15-minute Quadrangle

USGS 1938, Bertrاندville, Louisiana 7.5-minute Quadrangle

USGS 1947, Bertrандville, Louisiana 7.5-minute Quadrangle

USGS 1950, New Orleans, Louisiana 15-minute Quadrangle

USGS 1951, Bertrандville, Louisiana 7.5-minute Quadrangle

USGS 1954, New Orleans, Louisiana 15-minute Quadrangle

USGS 1966, Bertrандville, Louisiana 7.5-minute Quadrangle

USGS 1967, New Orleans, Louisiana 15-minute Quadrangle

USGS 1995, Bertrандville, 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*

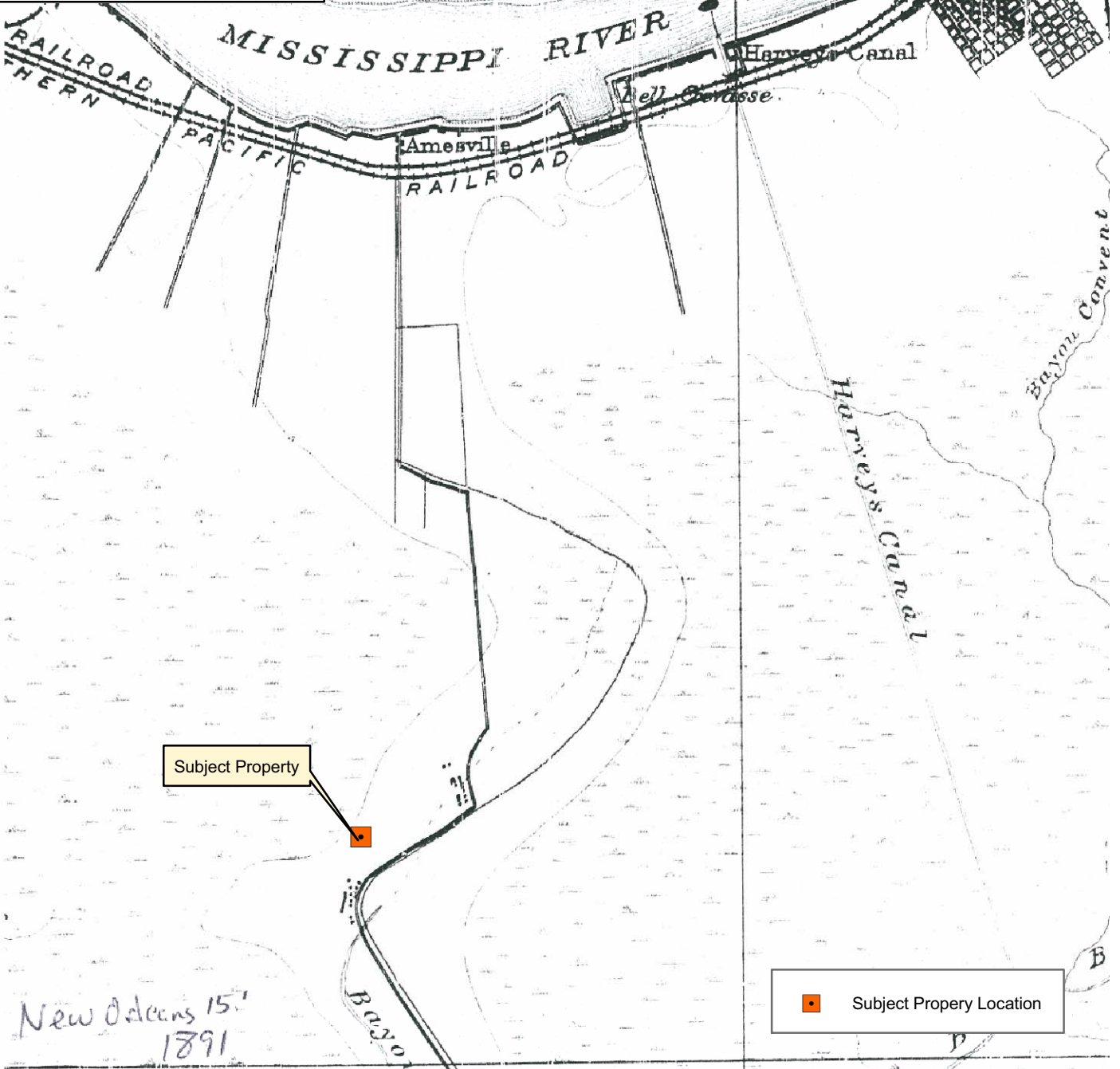
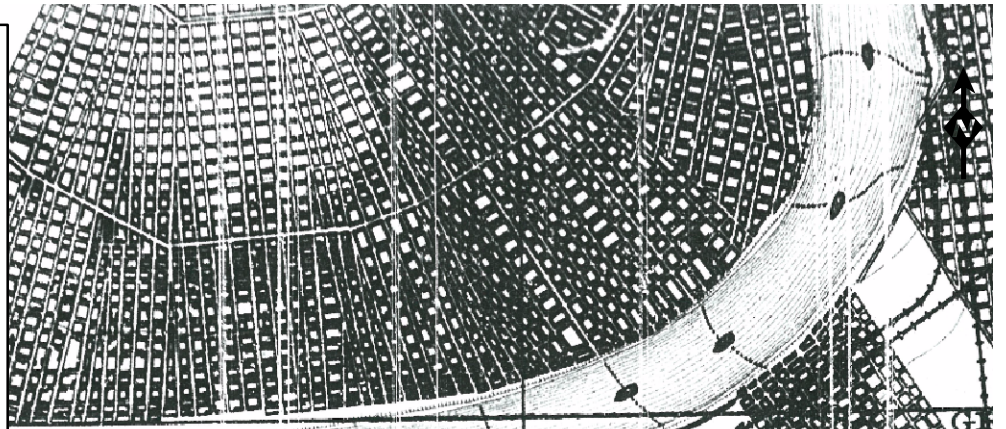
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LOUISIANA



Subject Property

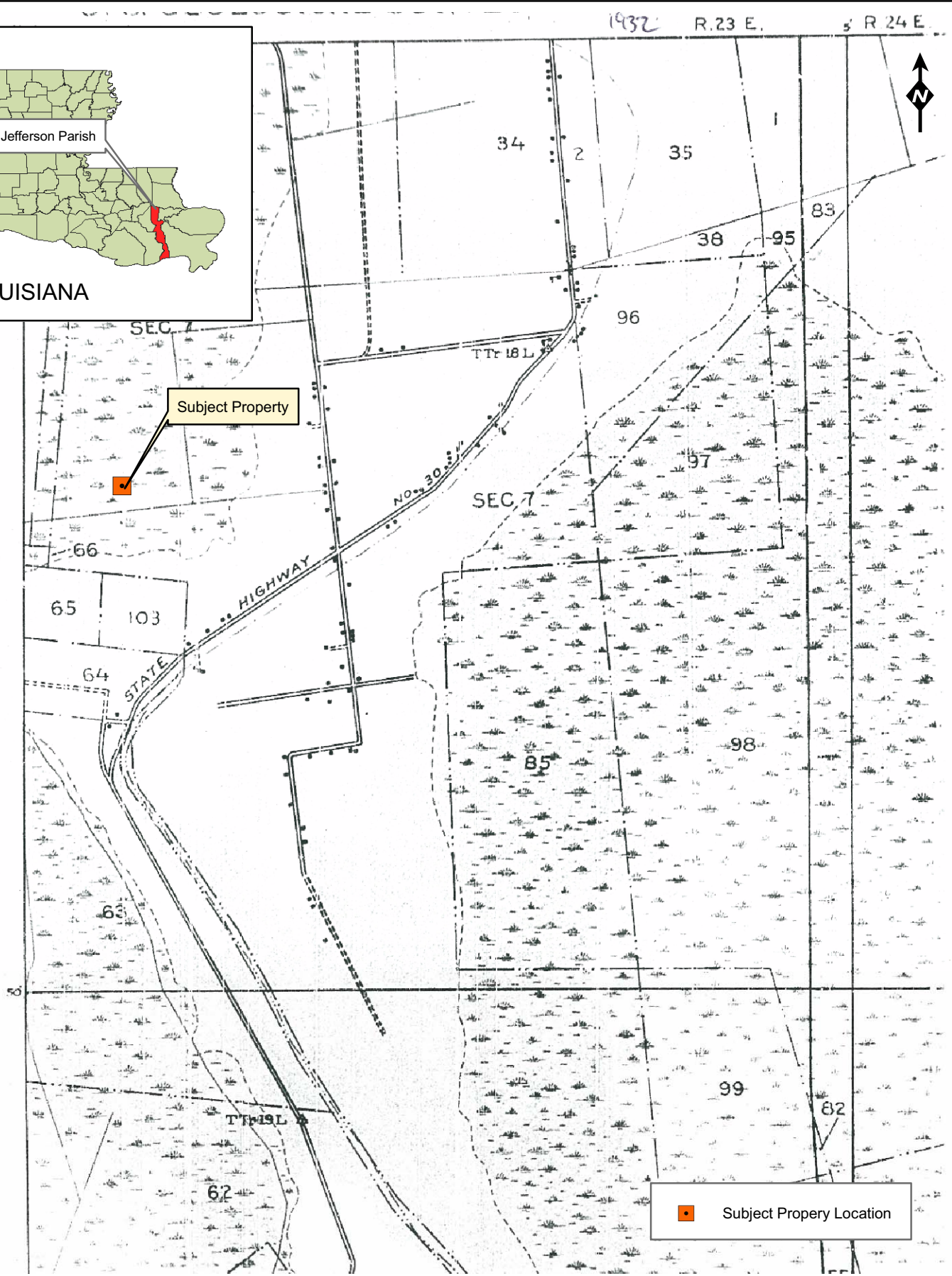
Subject Property Location

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



March 2007



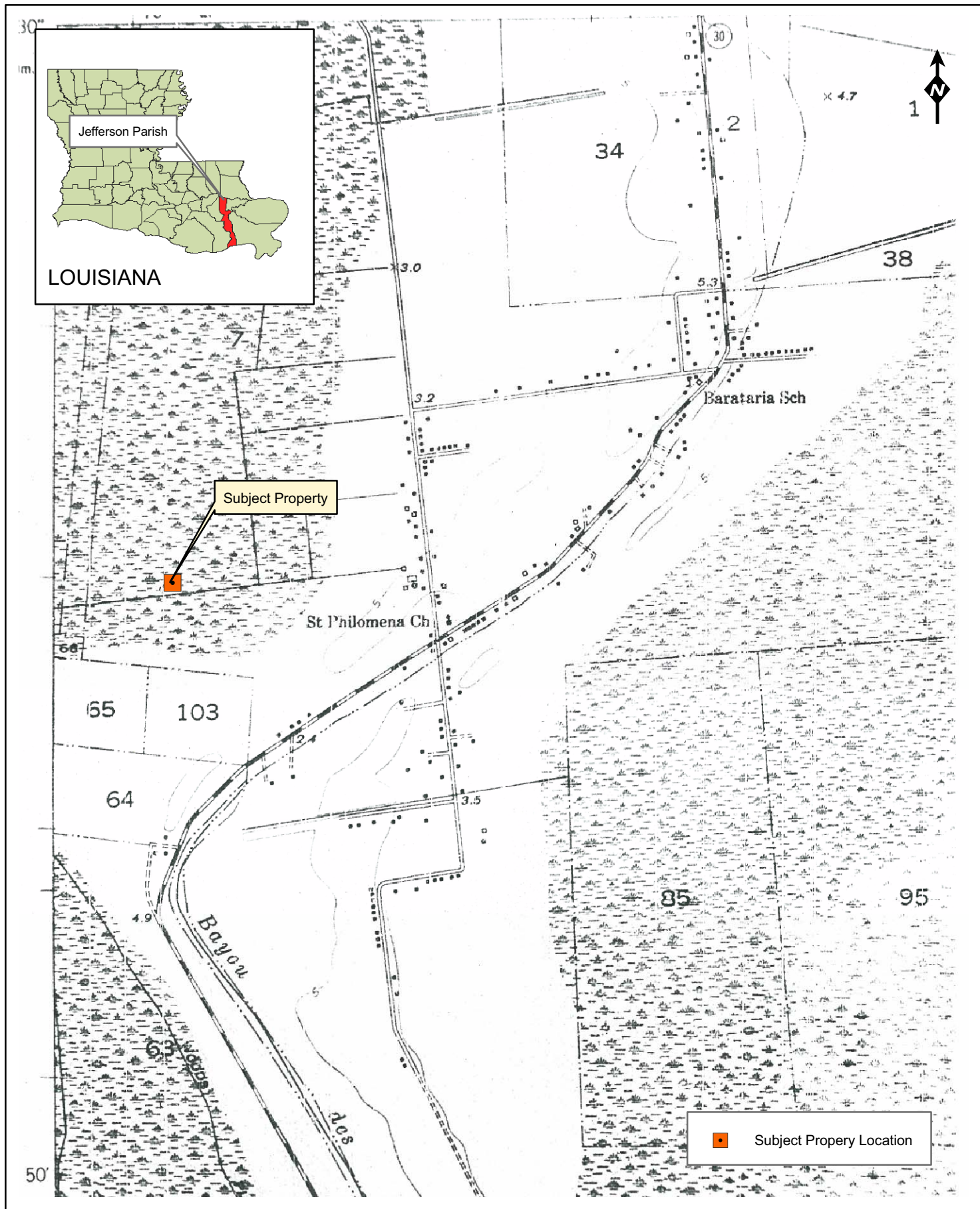


Ames Pump Station  
1932 New Orleans, LA 15 minute USGS Topographic Quadrangle



March 2007

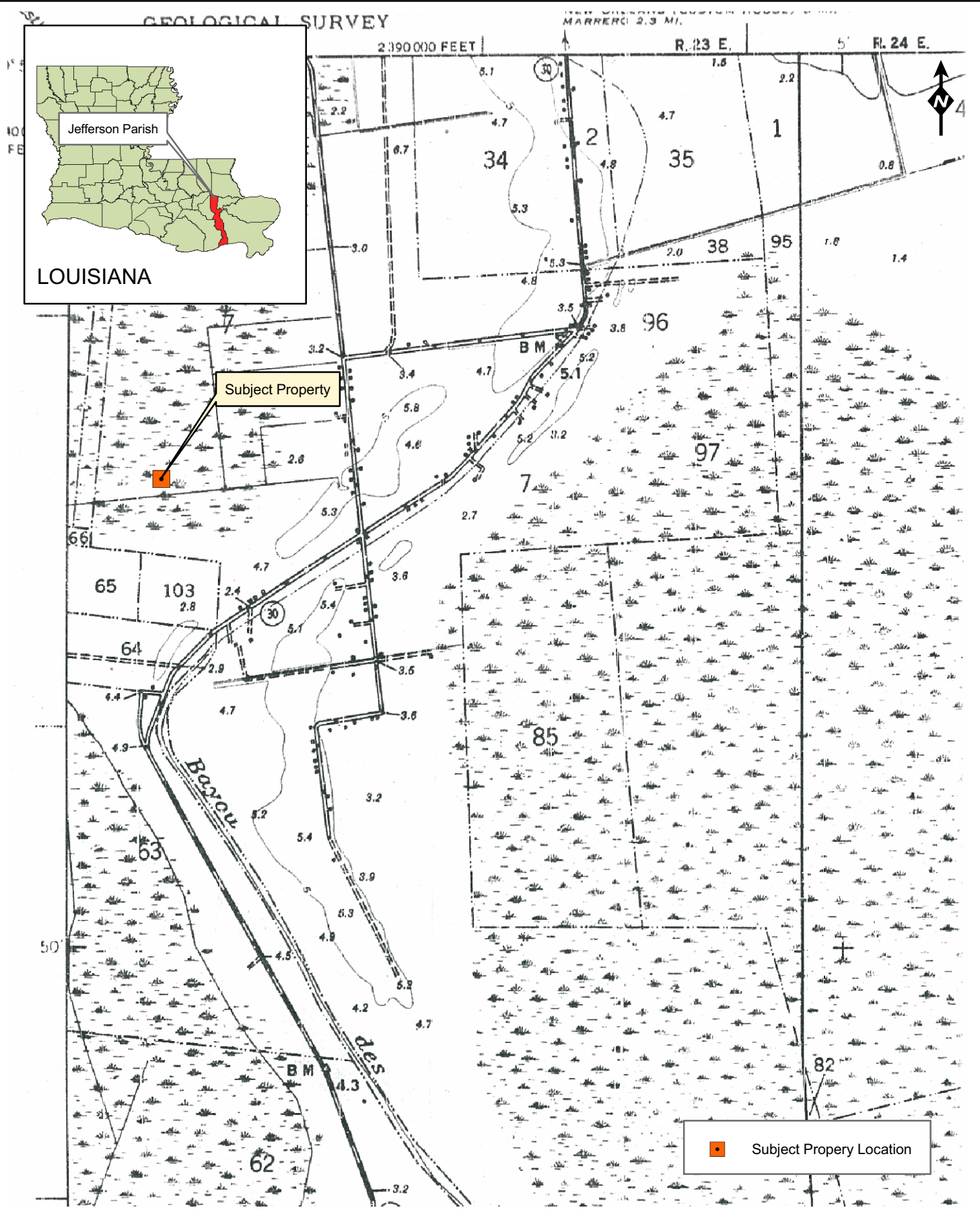




Ames Pump Station  
 1938 Bertrandville, LA 7.5 minute USGS Topographic Quadrangle



March 2007



Subject Property Location

Ames Pump Station  
1947 Bertrandville, LA 7.5 minute USGS Topographic Quadrangle

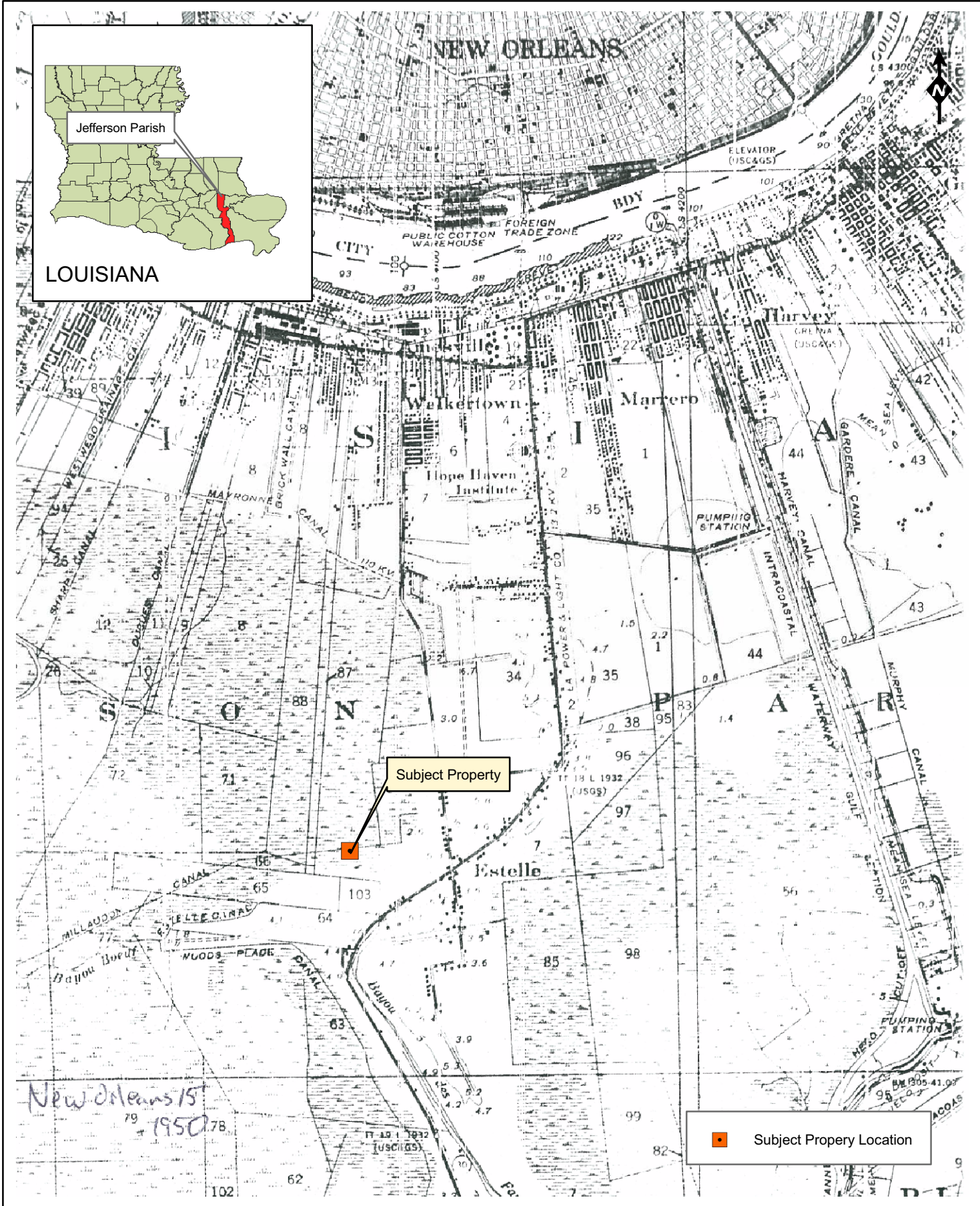


March 2007





LOUISIANA



Subject Property

Subject Property Location

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



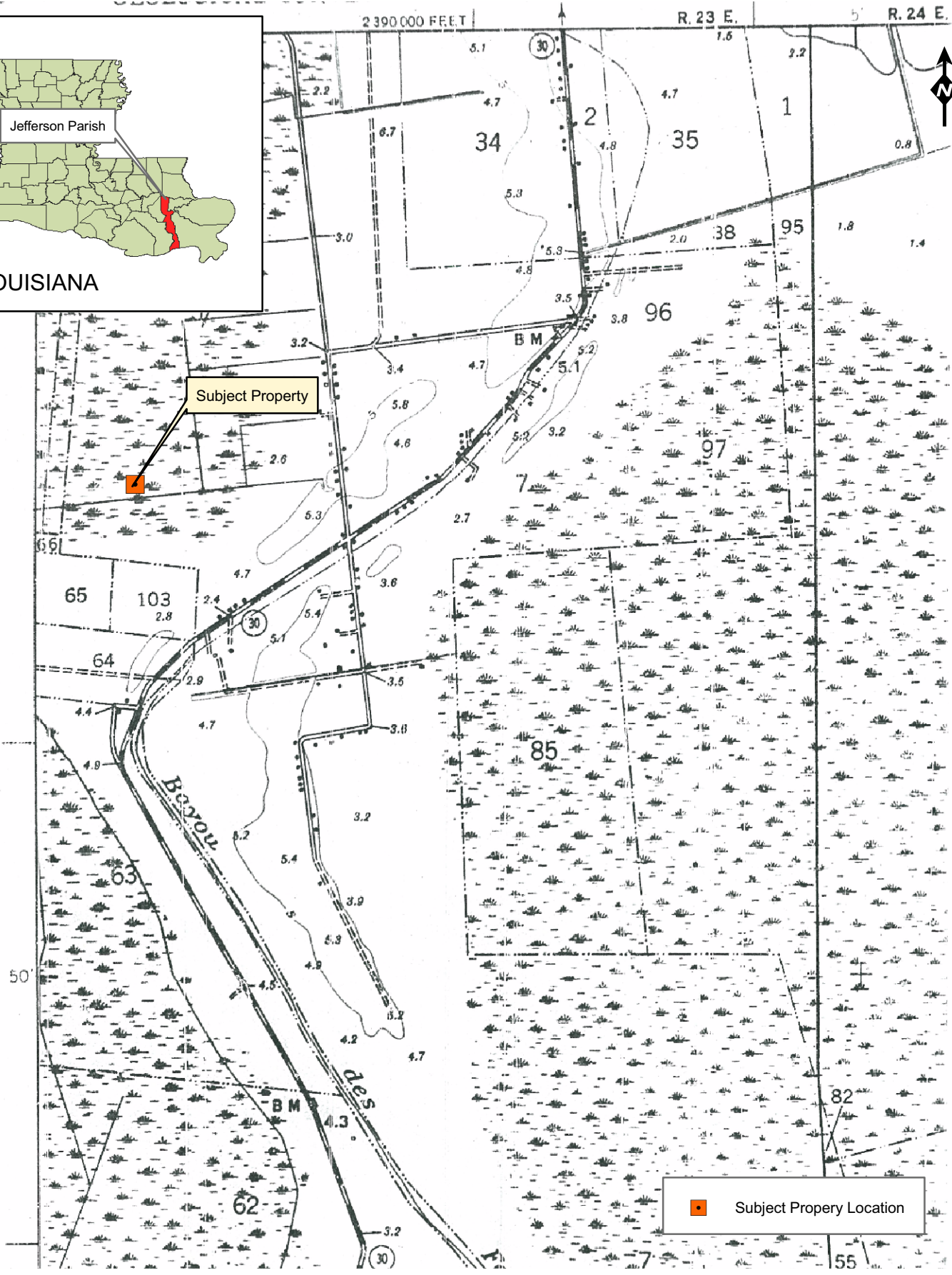
March 2007



2 390 000 FEET

R. 23 E.

R. 24 E.



Subject Property Location

Ames Pump Station  
1951 Bertrandville, LA 7.5 minute USGS Topographic Quadrangle

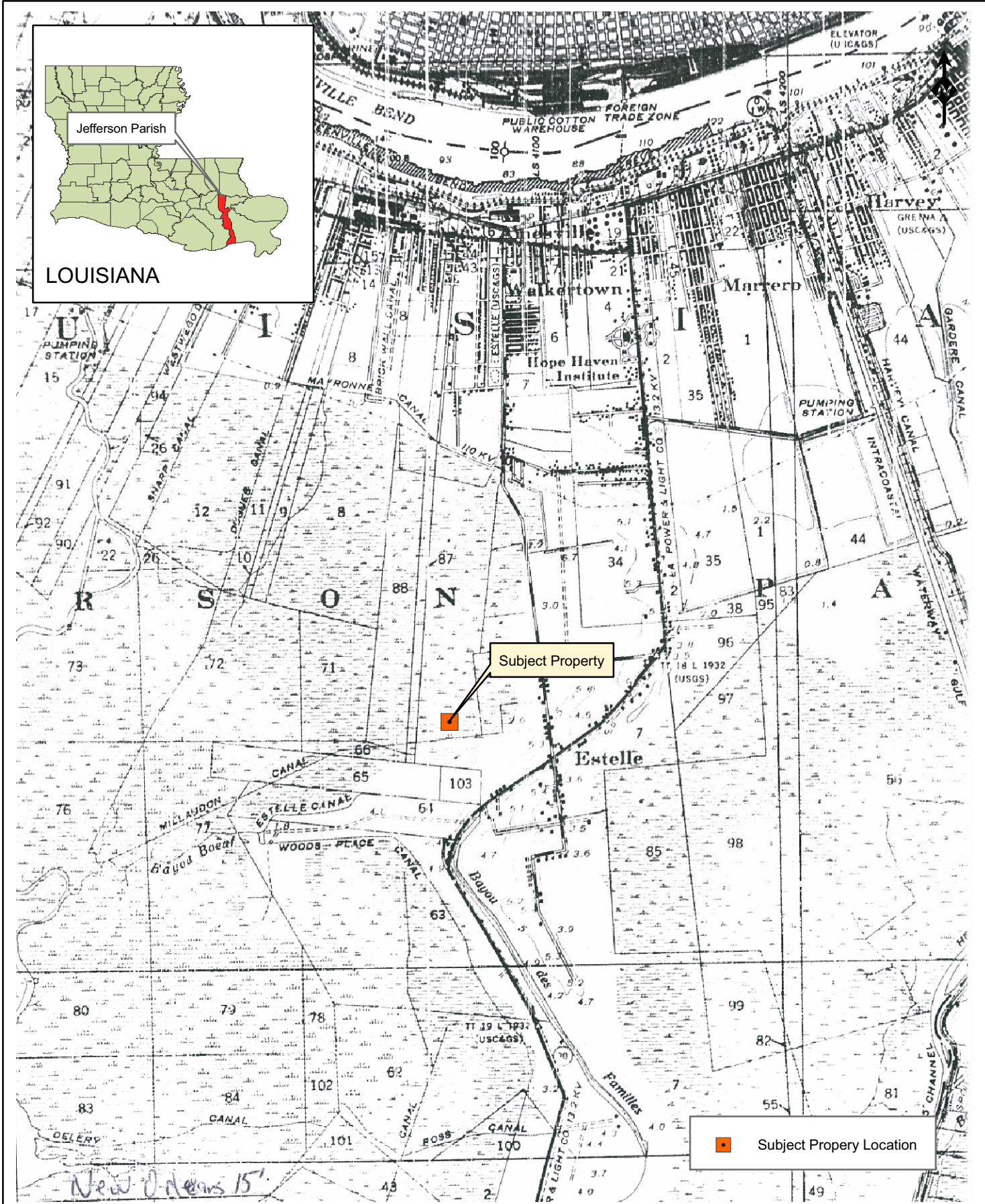


March 2007





LOUISIANA

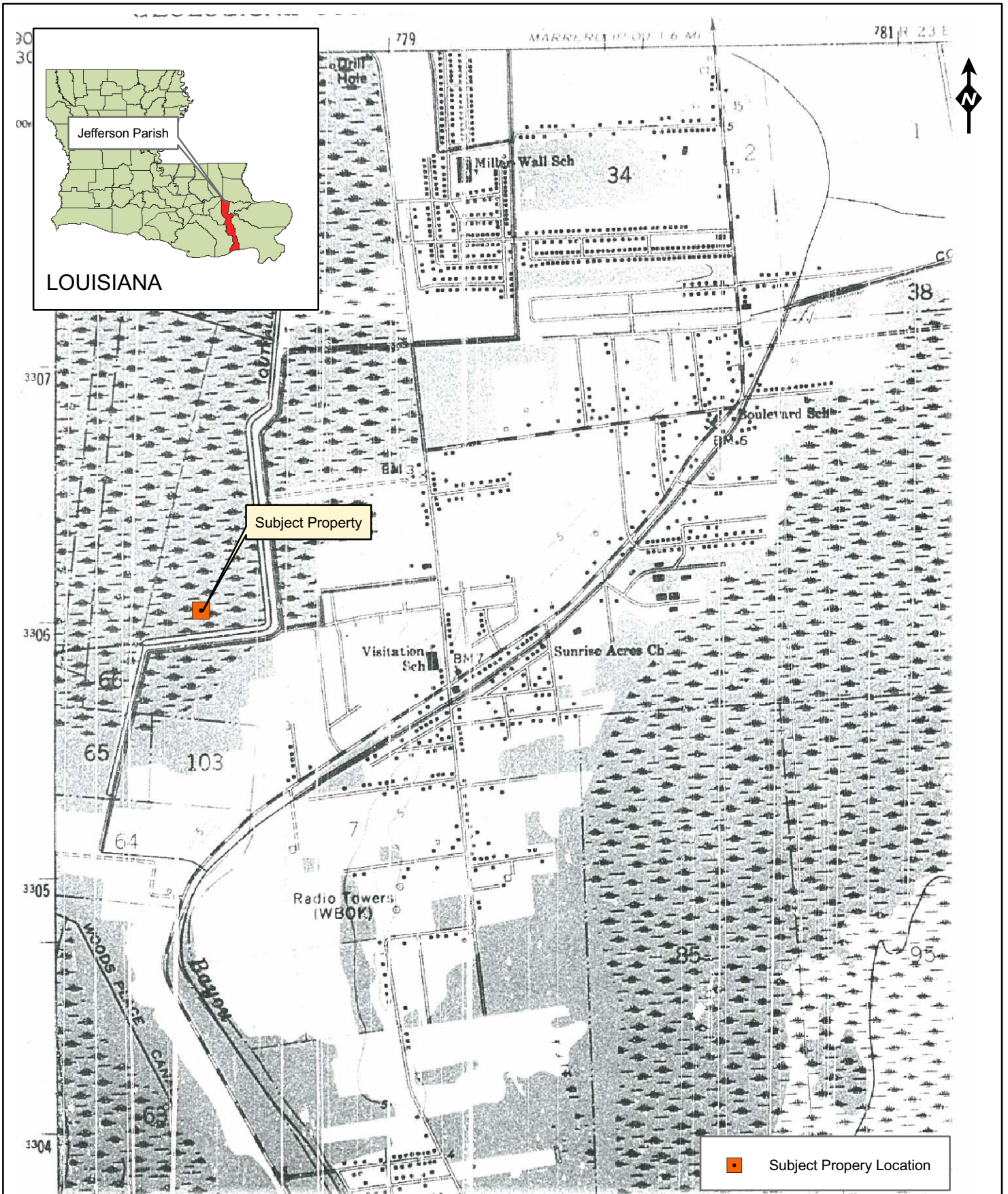


Ames Pump Station  
1954 New Orleans, LA 15 minute USGS Topographic Quadrangle



March 2007



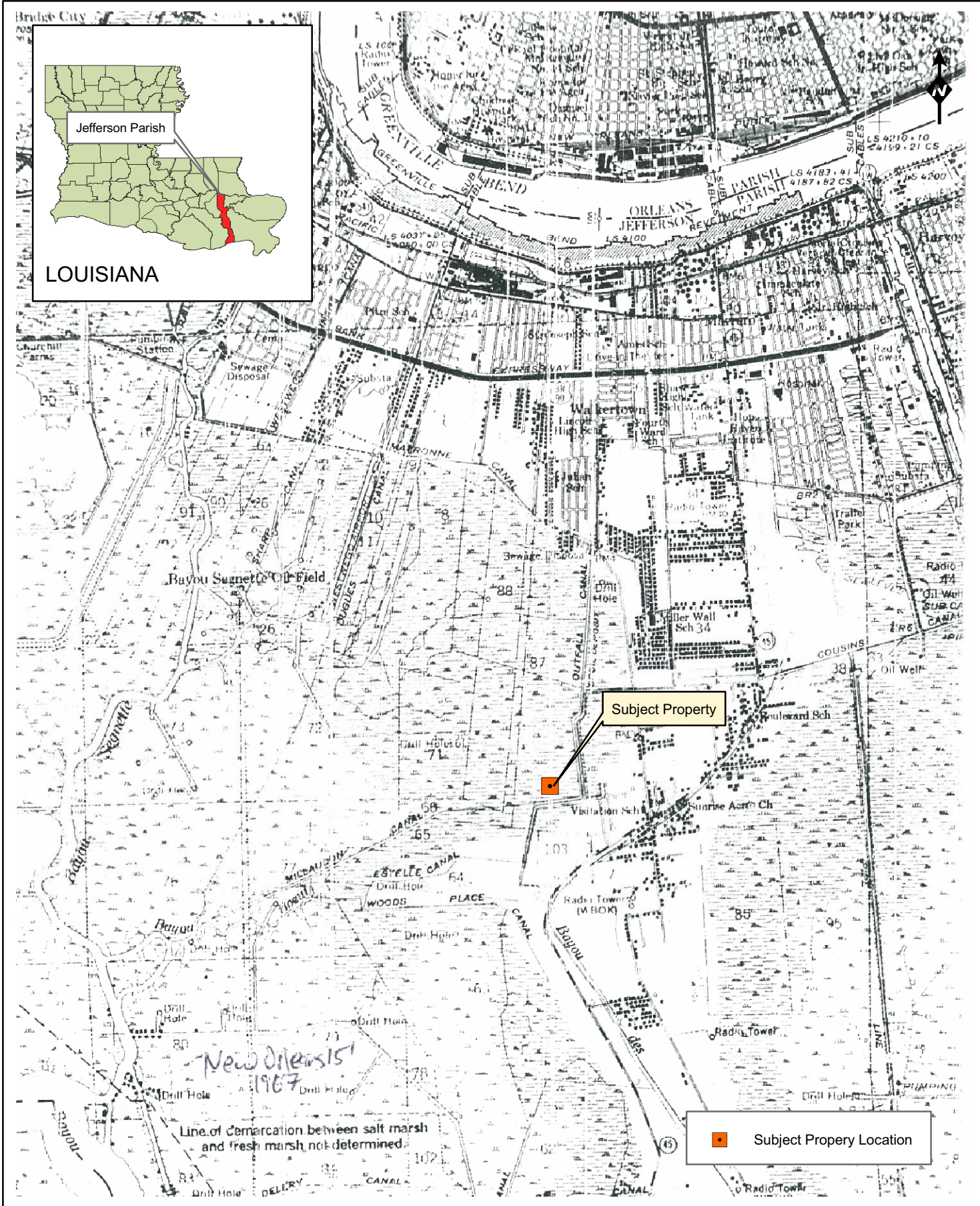


Ames Pump Station  
 1966 Bertrandville, LA 7.5 minute USGS Topographic Quadrangle



March 2007





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



March 2007





LOUISIANA

Subject Property



Subject Property Location



1 inch equals 0.1 miles

0 100 200 300 400 500 600

Feet

Ames Pump Station  
1968 Aerial Photography



March 2007





LOUISIANA



Subject Property

● Subject Property Location



1 inch equals 0.1 miles

0 100 200 300 400 500 600

Feet

Ames Pump Station  
1987 Aerial Photography



March 2007





LOUISIANA

Subject Property

● Subject Property Location



1 inch equals 0.1 miles

0 100 200 300 400 500 600

Feet

Ames Pump Station  
1990 Aerial Photography



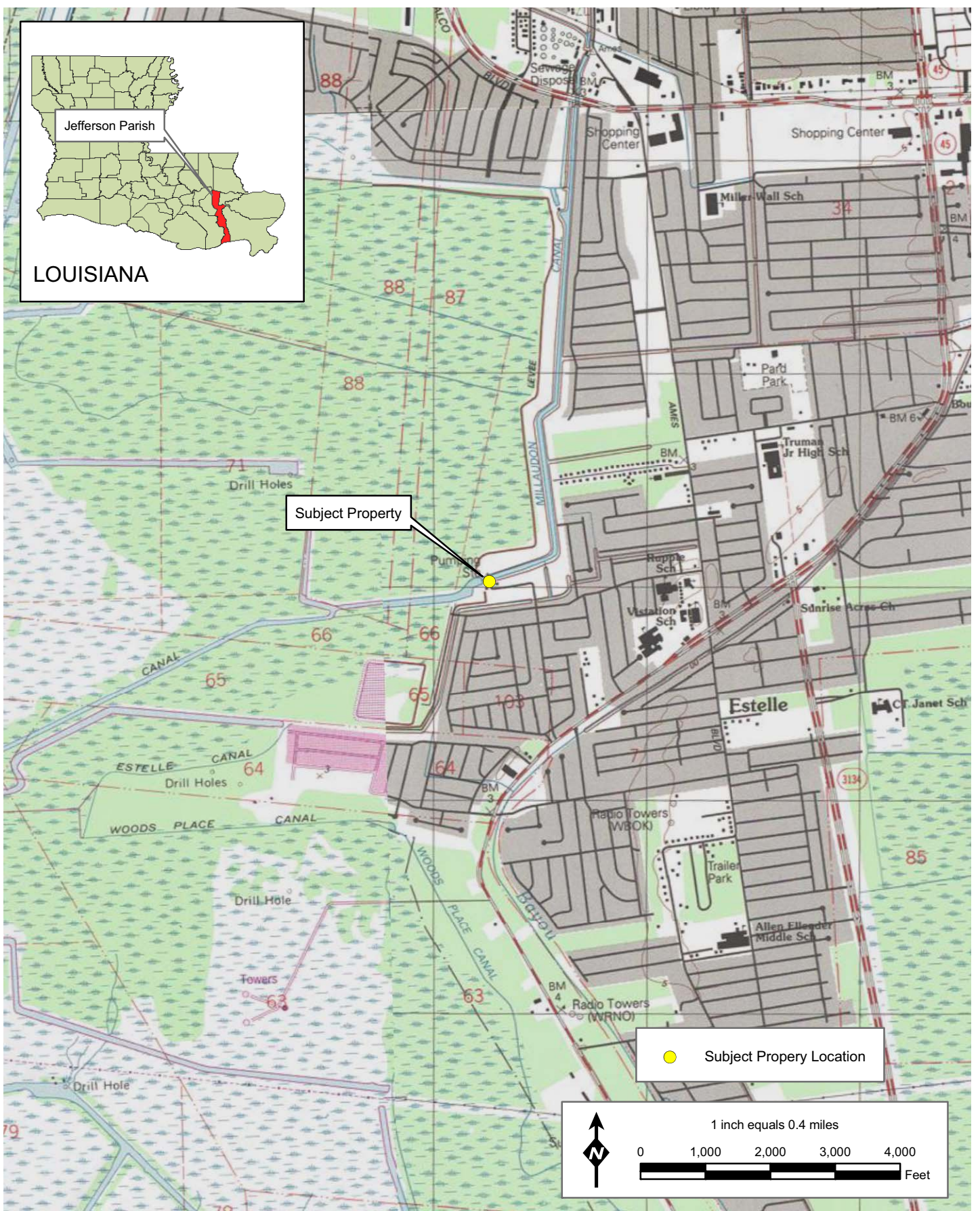
March 2007





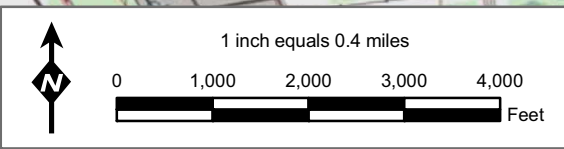
Jefferson Parish

LOUISIANA



Subject Property

● Subject Property Location



Ames Pump Station  
1995 Bertrandville, LA USGS Topographic Quadrangle



March 2007

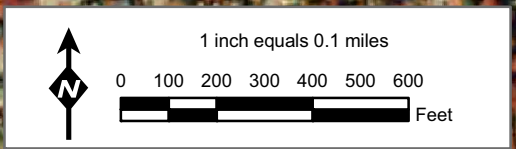




LOUISIANA



● Subject Property Location



Ames Pump Station  
1998 Bertrandville, LA USGS DOQQ



March 2007





LOUISIANA

Subject Property



Subject Property Location



1 inch equals 0.1 miles

0 100 200 300 400 500 600

Feet

Ames Pump Station  
2004 Bertrandville, LA USGS DOQQ



March 2007





LOUISIANA

Subject Property

● Subject Property Location



1 inch equals 0.1 miles

0 100 200 300 400 500 600

Feet

Ames Pump Station  
2005 Bertrandville, LA USGS DOQQ



March 2007

*APPENDIX B*  
*SITE PHOTOGRAPHS*







## SITE PHOTOGRAPHS



Photograph 1. Connex storage containers on subject property



Photograph 2. Interior of open storage container



Photograph 3. Old drums and spilled contents behind storage area



Photograph 4. Old drums behind storage area





Photograph 5. Storm safe room on subject property



Photograph 6. Diesel storage tank under safe room



Photograph 7. Equipment storage yard on subject property



Photograph 8. Empty diesel tank near levee





Photograph 9. Propane tank on subject property



Photograph 10. Transformer substation on subject property



Photograph 11. Diesel storage tanks on subject property



Photograph 12. Fuel spill/overflow containment basin





Photograph 13. View to the east of subject property along canal



Photograph 14. Old tires on subject property



Photograph 15. Office trailer on subject property



Photograph 16. View to the west of subject property





Photograph 17. View to the south of adjacent property



Photograph 18. View to the north of subject property



Photograph 19. View to the northwest of adjacent property



Photograph 20. View of Mt. Kennedy pump station to the southwest





Photograph 21. Flammable liquids storage inside the station pump building



Photograph 22. Oil storage inside the station pump building



Photograph 23. Oil spill containment and cleanup materials on site

*APPENDIX C*  
*LIST OF PREPARERS*





The following people were primarily responsible for preparing this report.

<b>Name</b>	<b>Discipline/Expertise</b>	<b>Experience</b>	<b>Role In Preparing Report</b>
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**

Performed 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 manager 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: 3-8-07 Time: 10:30 am

Project Name: Jeff. Parish PS  
Stormproofing

Employee: Steve Oivanki Person Contacted: Randy Rivero

Organization: Jeff. Parish Dept.  
Public Works Telephone No.: Personal contact

Reason for Call/Topics Discussed: Conditions at the Ames Pump Station

Copies to: file

Comments: Mr. Randy Rivero, Operator II for the Ames Pump Station, was interviewed during the site visit to the station. Mr. Rivero has been an operator at the station since 1985. He recalled when the station was built, and there was nothing but swamp on the site prior to construction. He stated that the wastewater on site is handled by a septic system, and potable water is supplied by the city/parish. Lubricating oil and other fluids are stored inside the station. Used oil is kept in a waste oil tank for recycling by a licensed transporter. The station serves as the field office headquarters for the west bank stations. All spare equipment is stored there. The Connex containers contain parts, paint, paperwork, etc. Hurricane Katrina did not flood the station; water reached the top of the rake screens. He did not know the PCB content of the transformers, which are owned and operated by the local utility. He knew of no environmental concerns at the station, and there had been no spills or other incidents since it was built in 1984-1985.

Decisions/ Agreements Reached:

Action Items: Information added to report



**FINAL**

**PHASE I  
ENVIRONMENTAL SITE ASSESSMENT**

**Bonnabel 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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Appendix D Personnel Qualifications  
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**PHASE I ENVIRONMENTAL SITE ASSESSMENT**  
**Bonnabel 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, New Orleans District (hereafter referred to as the User) construction of infrastructure and improvements to the Bonnabel Pump Station property (hereafter referred to as the subject property), owned by Jefferson Parish, Louisiana. The 3.9-acre parcel is located at the north end of the Bonnabel Canal adjacent to Lake Ponchartrain, at 1500 Beverly Gardens 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.

**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**

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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 1500 Beverly Gardens 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.

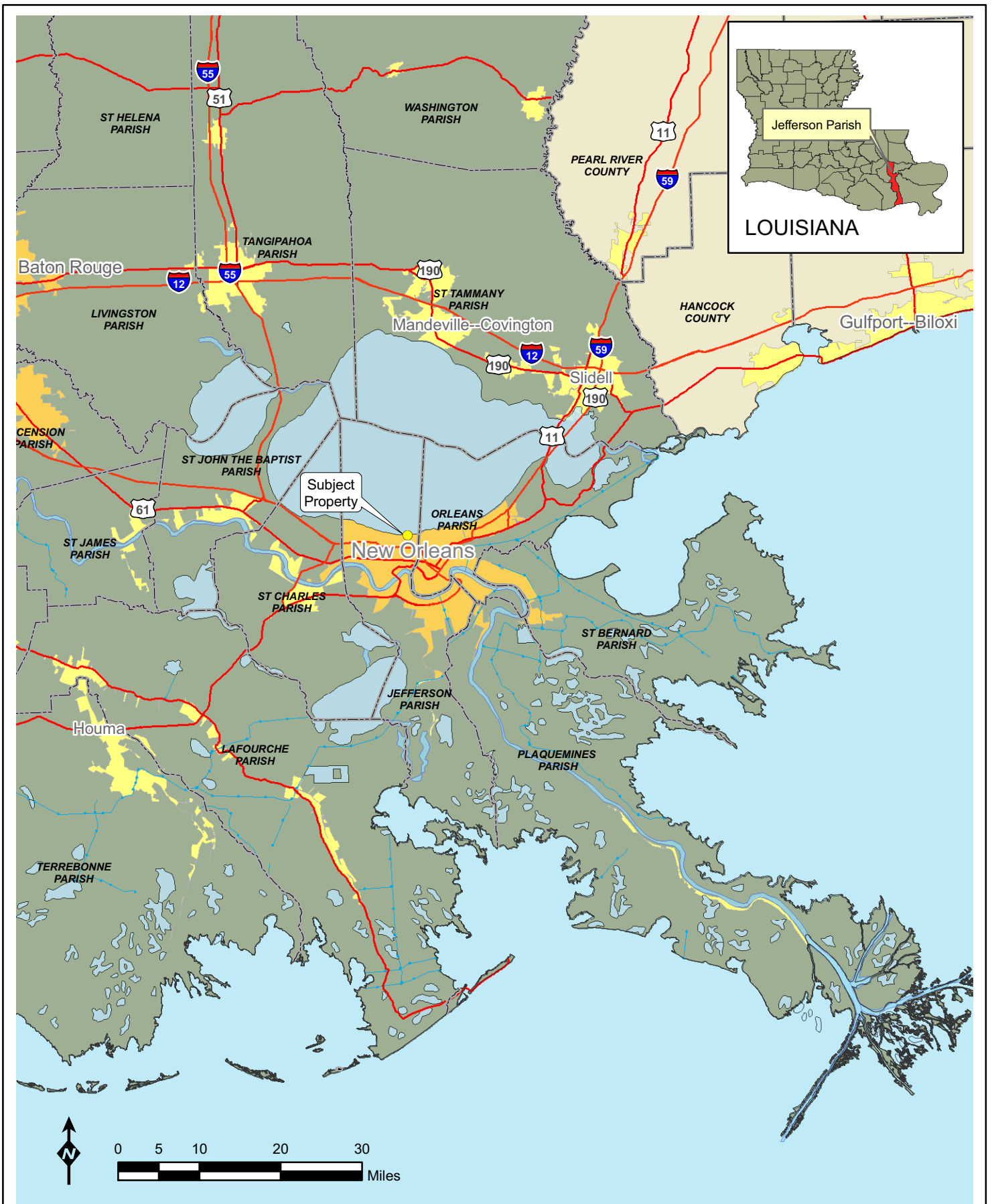


Figure 1: Vicinity Map



March 2007



Figure 2: Bonnabel Pump Station Location



March 2007



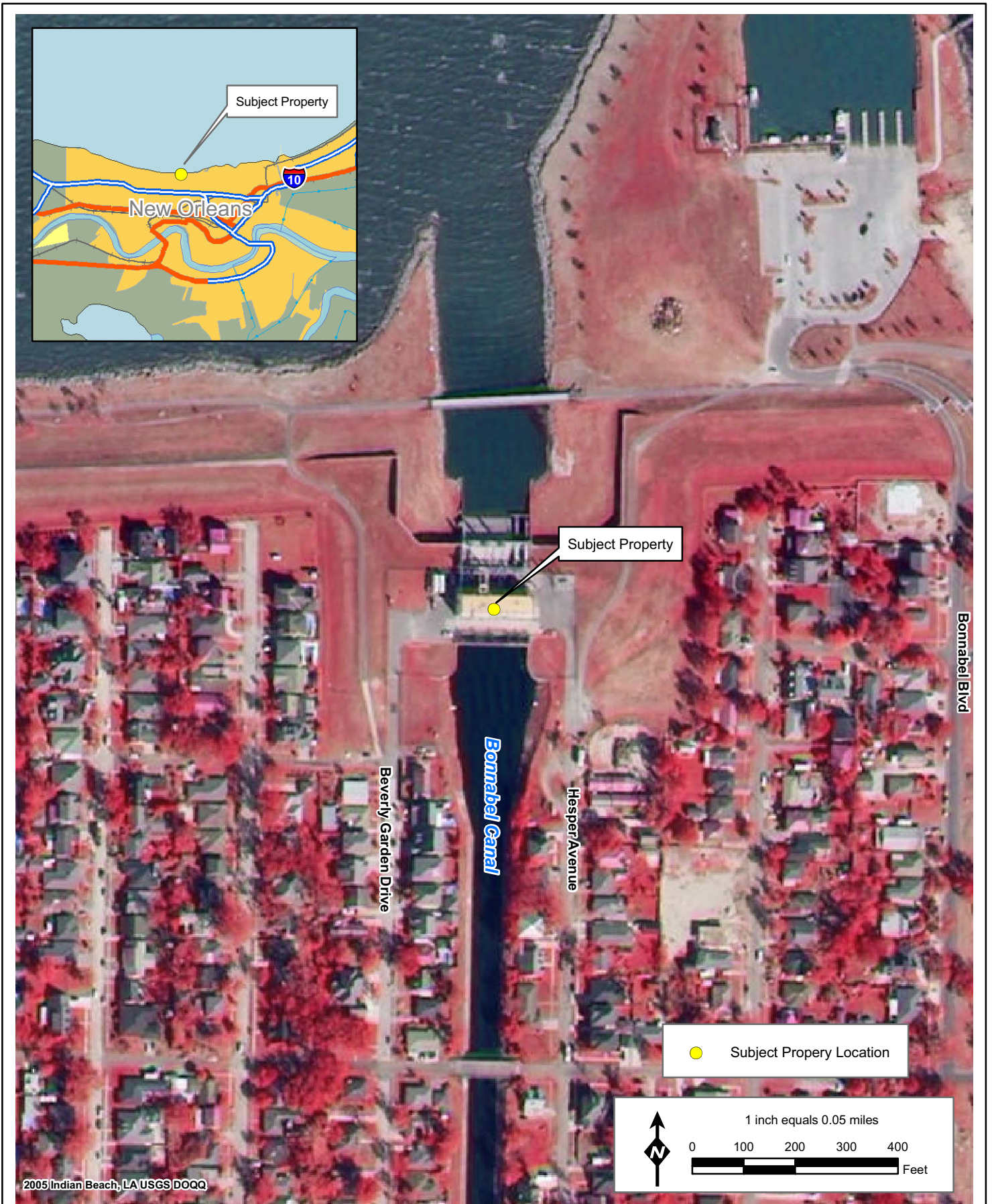


Figure 3: Bonnabel Pump Station Area



March 2007

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## 2.0 SURVEY METHODOLOGY

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### 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's representative 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 (B). 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 (B). 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 one site within a 1-mile radius of the subject property that was listed in the SHWS database, Lee Sanitation Service, that was assessed in 1980 for an unknown

hazardous waste investigation, and closed with no further action planned in 1981. Due to the distance of this site from the subject property and the time elapsed since the incident, this site poses no business environmental risk to the subject property.

EDR reported 11 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**

A search of the Polk's City Directory for Beverly Gardens Drive indicated that the subject property was first listed at 1440 Beverly Gardens Drive in 1980. Additional adjacent properties were all listed as residences. In 1996, two commercial properties were listed as Boh Bros Construction Company at 1437 Beverly Gardens Drive and Atlanta Film Converting Company at 1433 Beverly Gardens Drive. These business addresses were likely offices, since in 2001 they were listed as residences at the same addresses. No indications of businesses that would pose a business environmental risk to the subject property were indicated in the city directory search.

### **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 1947 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 of the subject property is provided in Figure 5. A site reconnaissance was conducted on March 7, 2007 by Denise Ford and Greg Lacy. The

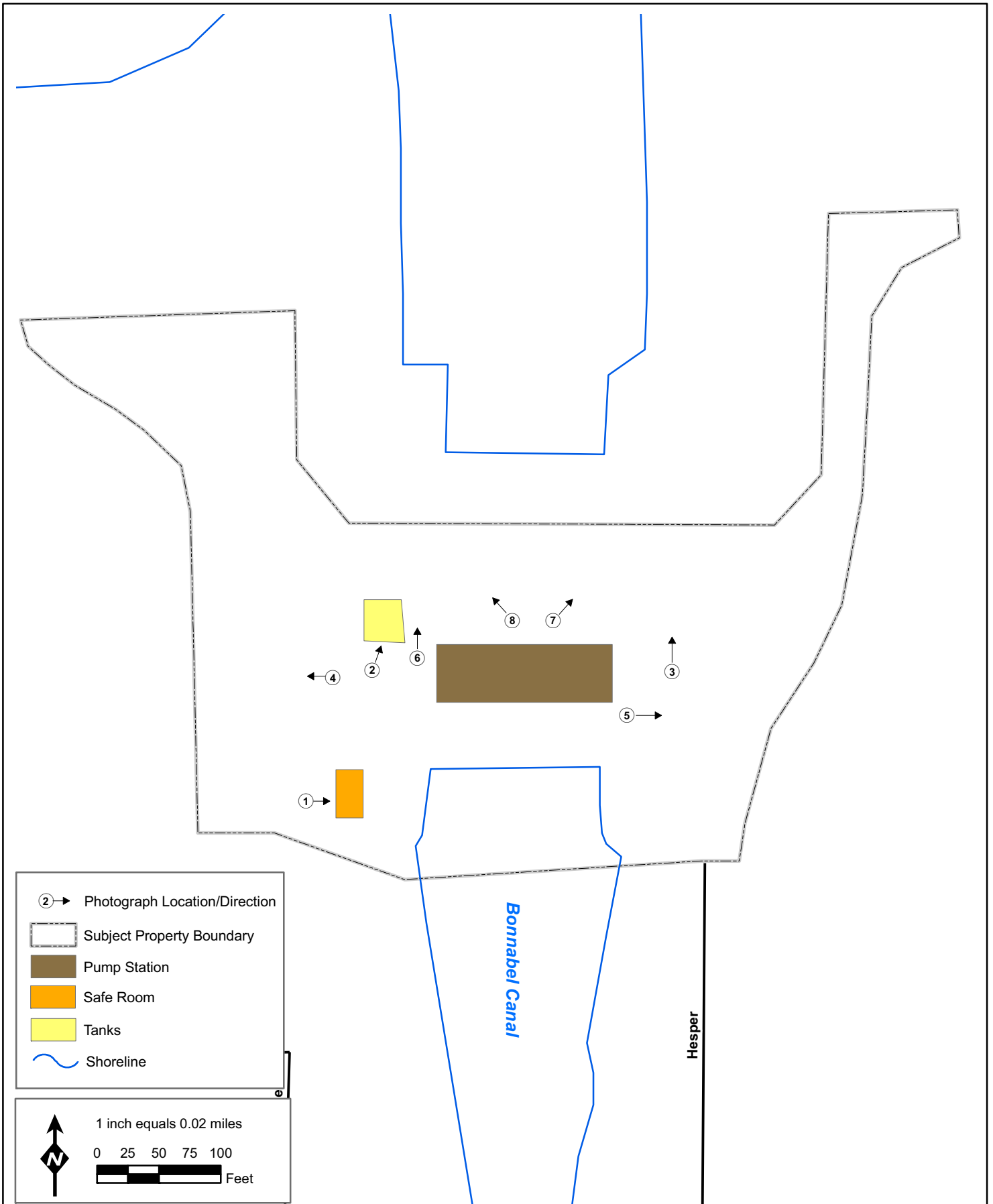


Figure 4: Survey Map of Bonnabel Pump Station



March 2007

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focus of the effort was to investigate the subject property for visual 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
1943	Indian Beach, LA 7.5-Minute Quadrangle	1:24,000
1947	Aerial Photograph	---
1952	Indian Beach, LA 7.5-Minute Quadrangle	1:24,000
1953	Spanish Fort, LA 15-Minute Quadrangle	1:62,500
1957	Aerial Photograph	---
1965	Indian Beach, LA 7.5-Minute Quadrangle	1:24,000
1967	Aerial Photograph	---
1967	Spanish Fort, LA 15-Minute Quadrangle	1:62,500
1975	Aerial Photograph	---
1985	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 3.9 acres, as determined by the GPS coordinates of the observed 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 storage container contains spare parts and equipment. The ground is relatively flat terrain covered with 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 Bonnabel 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 to weather conditions on the property. 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 storage for the station pump engines is contained in two horizontal storage tanks with a capacity of 19,500 gallons (Photograph 2, Appendix B), and the tanks have an approved spill containment basin, as defined in the SPCC plan. Four diesel day tanks with a combined capacity of 2,000 gallons are located inside the pump building.

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 adjacent to the resident operator's house, and it is used for emergency purposes for cooling water for the pump engines.

There is a Connex storage container on the property used for equipment storage (Photograph 6, Appendix B). A safe room to protect pump operators during hurricanes on the property is fueled by two diesel tanks located on the ground under the safe room (Photograph 1, 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 Bonnabel property. 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. All of the transformers are new, with no PCB in the oil.

### **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.



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## **3.0 FINDINGS FOR SUBJECT PROPERTY**

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### **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 1947 to 2005 were inspected to identify structures and development on the subject property and surrounding properties (Appendix A). The first indication of development of the area around the subject property appeared on the 1936 topographic map, where the Pump Station No. 1 was indicated on the subject property. Several small structures (houses) were scattered along the lake front on both sides of the subject property. The 1943 topographic map also showed the pump station, but no other changes from 1936.

The 1947 aerial photograph showed the pump station building straddling the canal and several other houses along the canal and the lake front. The 1952 topographic map showed the same development as the 1938 map, and roads extended down both sides of the Bonnabel Canal to the pump station and into adjacent neighborhoods. The vicinity around the pump station was labeled as Bucktown, a name that is still used for the neighborhood today. The 1953 topographic map showed no change from 1952. The 1957 aerial photograph showed the pump station in place at the end of the canal, and numerous scattered homes east of the subject property.

The 1965 topographic map showed numerous streets in place east and west of the pump station property, and numerous houses were indicated. The 1967 topographic map showed continued development of houses and streets in the area around the subject property. The 1967 aerial photograph showed in detail that most of the land around the subject property was developed as residences. The 1975 aerial photograph indicated the area around the subject property to be completely developed with residential subdivisions.

The 1985 aerial photograph indicated a great deal of construction around the subject property, with disturbed ground and numerous pipes or poles on the ground around the pump station. Another area of construction was indicated northeast of the pump station on a point in the lake. The 1992 topographic map showed all of the current streets in place, and a marina structure was shown northeast of the pump station where construction was indicated in 1985. The 1998 aerial photograph indicated the marina northeast of the subject property, and the development around the pump station as it is today. The 2004 and 2005 aerial photographs showed no change from 1998.

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

## **3.2 CURRENT USE**

### **Environmental Setting**

The subject property is located at 1500 Beverly Gardens Drive, at the north end of the Bonnabel Canal. 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. All of the surrounding properties to the east, south and west are developed 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. The topography of the subject property generally slopes toward the south, 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 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

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## 4.0 FINDINGS FOR ADJACENT PROPERTIES

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### 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. No *recognized environmental conditions* were observed on any adjacent properties.

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## **5.0 APPLICABLE REGULATORY COMPLIANCE ISSUES**

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### **5.1 LIST OF COMPLIANCE ISSUES AND CORRECTIVE ACTIONS**

According to the EDR report (Volume II, Section B) 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

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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**

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No deletions or deviations from ASTM Practice E 1527-05 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**

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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**

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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

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EDR 2007, P.S. #1 (Bonnabel), 1500 Beverly Gardens Drive, Metairie, LA, EDR Radius Map with GeoCheck, I.N. 01870098.18r, 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](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) 1947 aerial photograph

USACE 1957, aerial photograph

USACE 1967, aerial photograph

USACE 1975, aerial photograph

USACE 1985, aerial photograph

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

USGS 1936, Indian Beach, Louisiana 7.5-minute Quadrangle

USGS 1943, Indian Beach, Louisiana 7.5-minute Quadrangle

USGS 1952, Indian Beach, Louisiana 7.5-minute Quadrangle

USGS 1953, Spanish Fort, Louisiana 15-minute Quadrangle

USGS 1965, Indian Beach, Louisiana 7.5-minute Quadrangle

USGS 1967, Spanish Fort, Louisiana 15-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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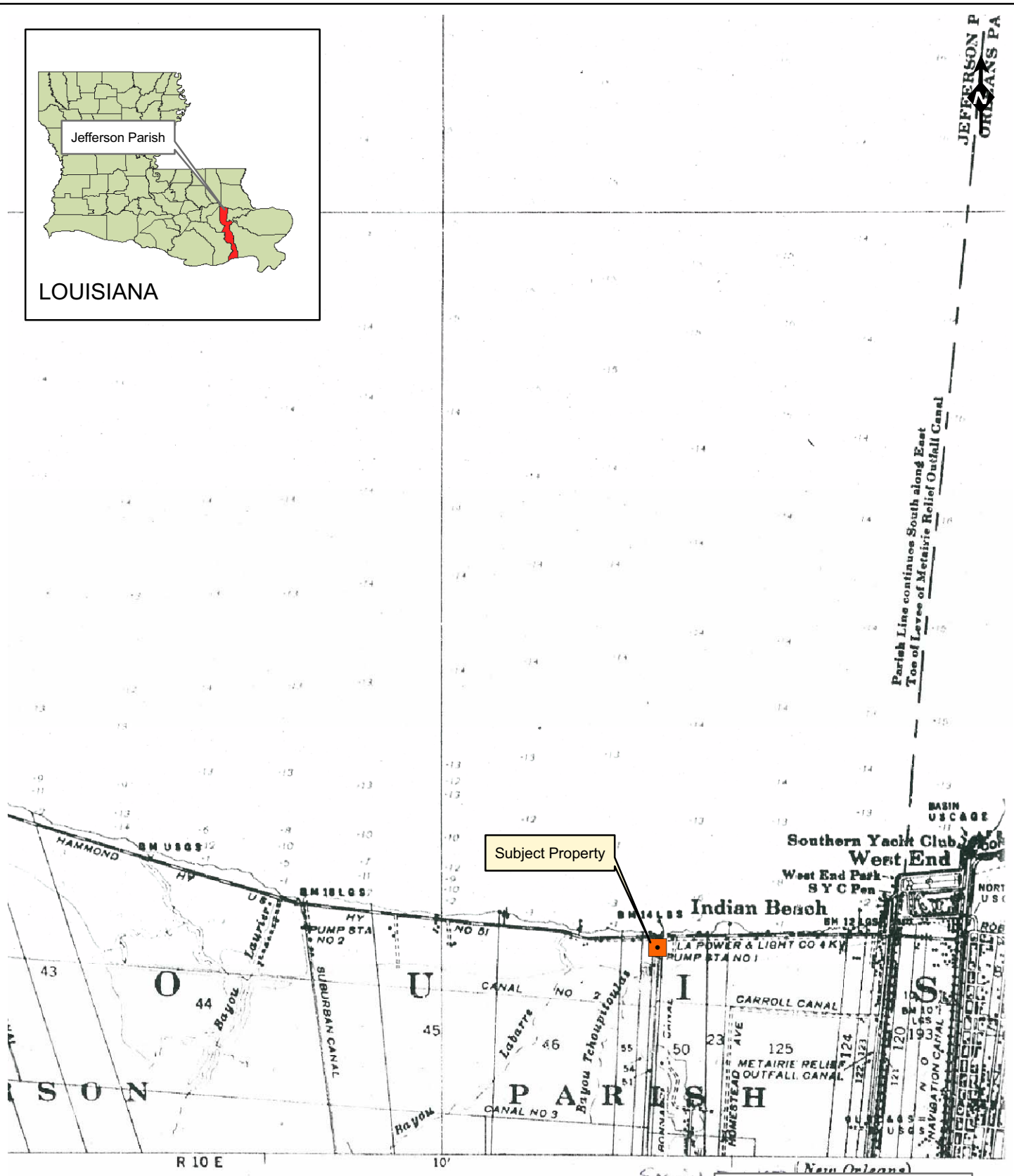
*APPENDIX A*  
*HISTORICAL TOPOGRAPHICAL MAPS AND AERIAL PHOTOGRAPHS*

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Subject Property

Subject Property Location

er Commission.  
 Engineers, U. S. Army,  
 Geodetic Survey (L. G. S.)  
 anish Fort

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



March 2007



2°30'

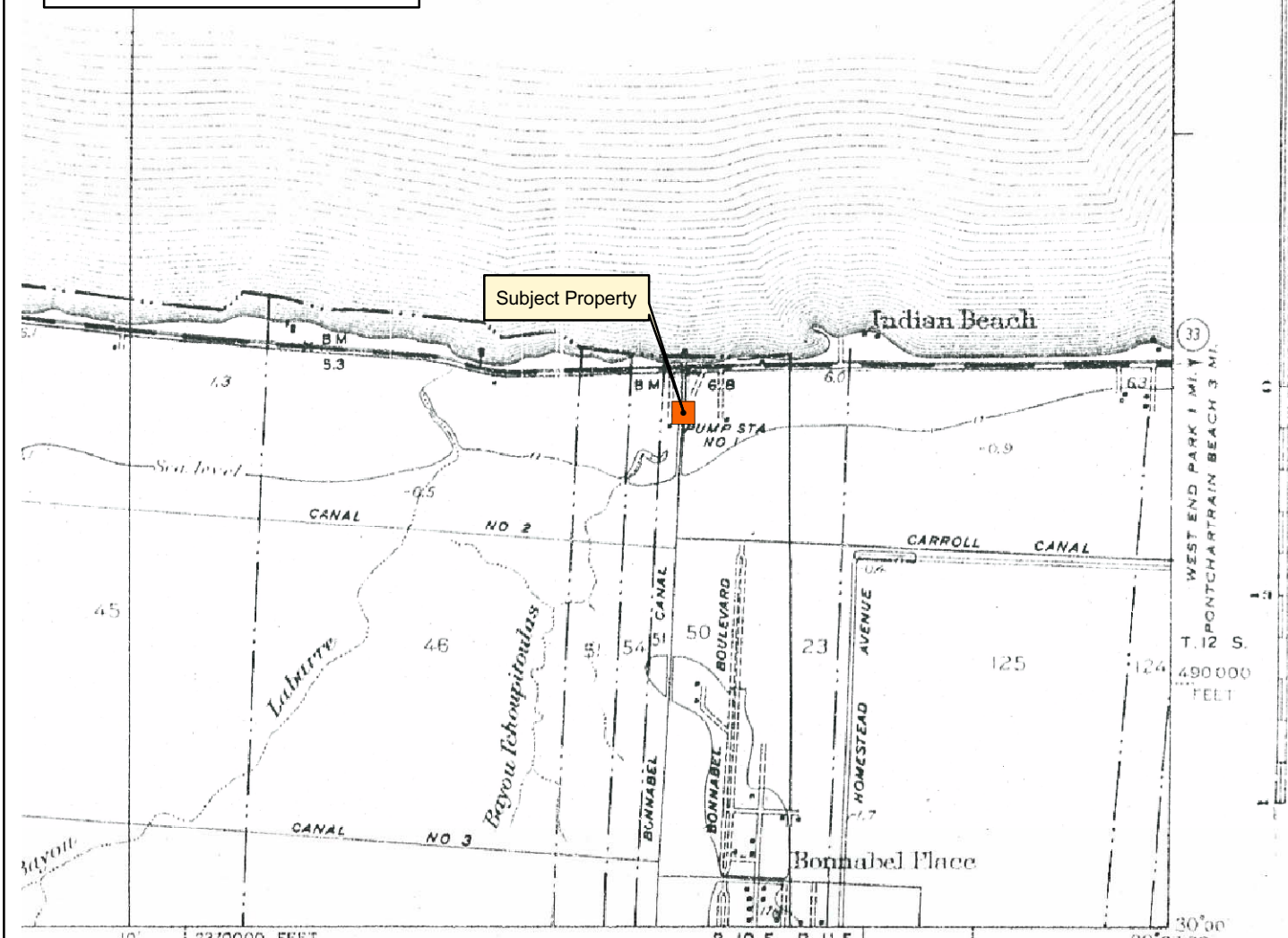


Jefferson Parish

LOUISIANA

Subject Property

Indian Beach



WEST END PARK 1 MI. Y  
PONTCHARTRAIN BEACH 3 MI.  
T. 12 S.  
490 000  
FEET

10' 2370000 FEET

USGS  
Historical File  
Topographic Division  
Polyconic projection, 1927 North American datum  
5000 yard grid based upon U.S. zone system, C  
10 000 foot grid based on Louisiana (South)  
rectangular coordinate system

1 Mile  
3 Feet

ROUTES USUALLY TRAVELED  
HARD IMPERVIOUS SURFACES  
OTHER SURFACE IMPROVEMENTS  
U. S. ROUTE 1943 STATE ROUTE

INDIAN BEACH, LA.

■ Subject Property Location

1:31120

218

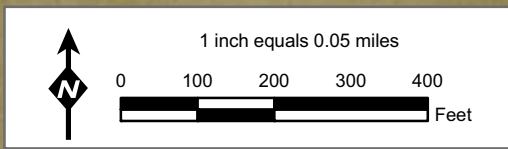
Bonnabel Pump Station  
1943 Indian Beach, LA 7.5 minute USGS Topographic Quadrangle



March 2007



● Subject Property Location



Bonnabel Pump Station  
1947 Aerial Photography

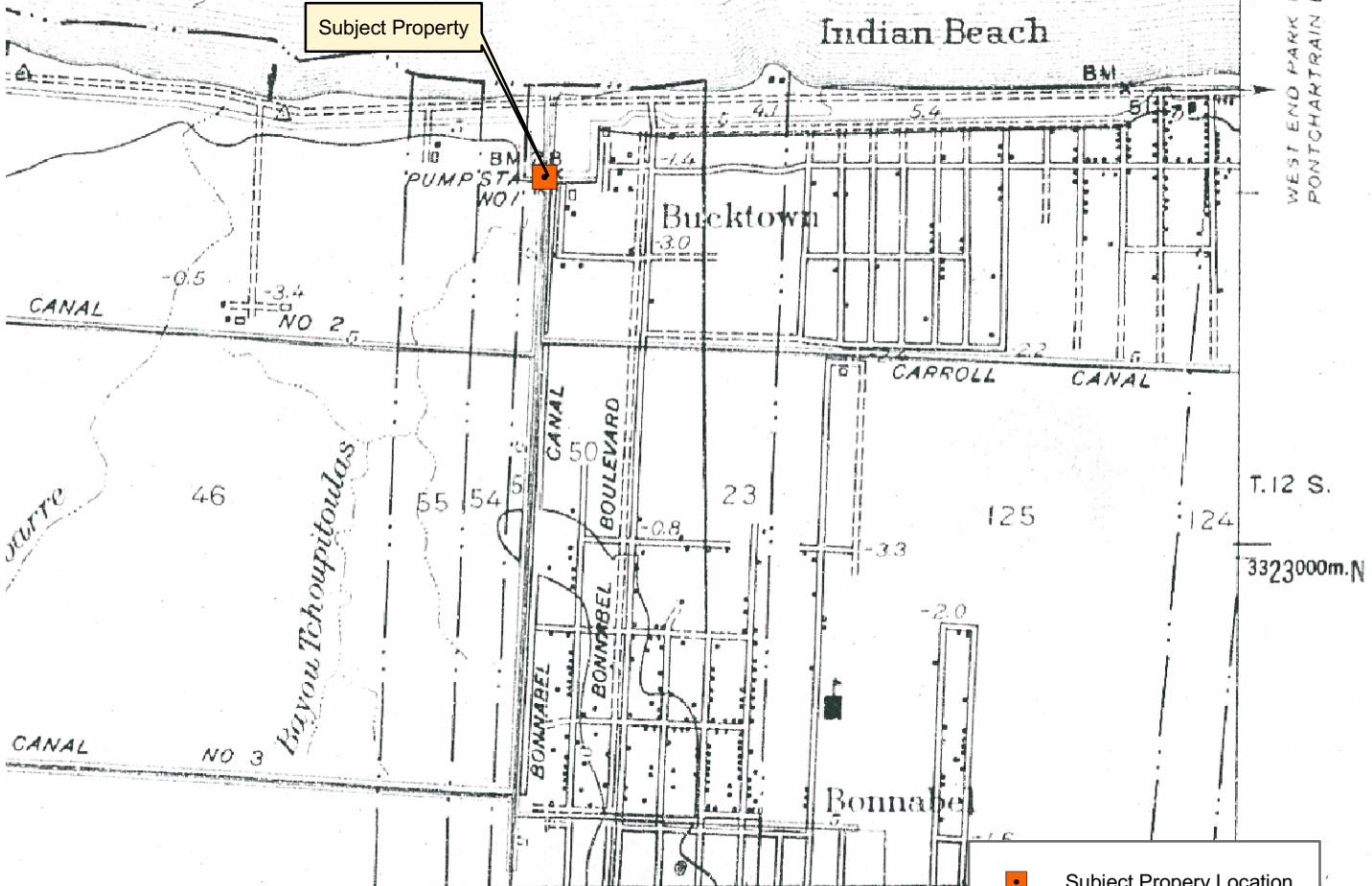


March 2007





Indian Beach 1952  
7.5



■ Subject Property Location

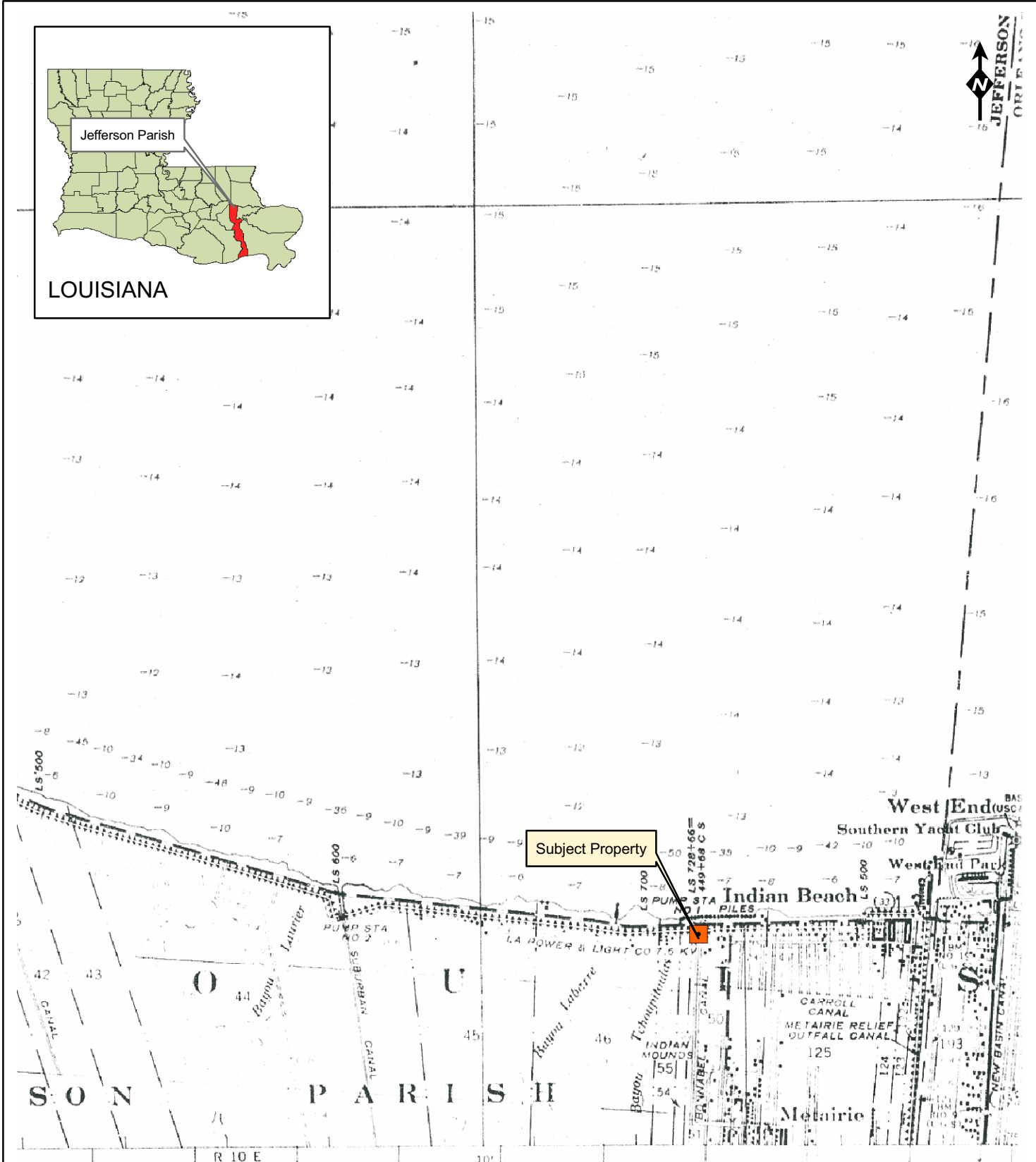
U.S. GEOLOGICAL SURVEY, WASHINGTON, D. C. 1958  
MR 0787  
CRESTMONT 1 MI.  
2 MI. TO U.S. 91, 61, 65  
R. 10 E. R. 11 E.  
ROAD CLASSIFICATION

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



March 2007





■ Subject Property Location

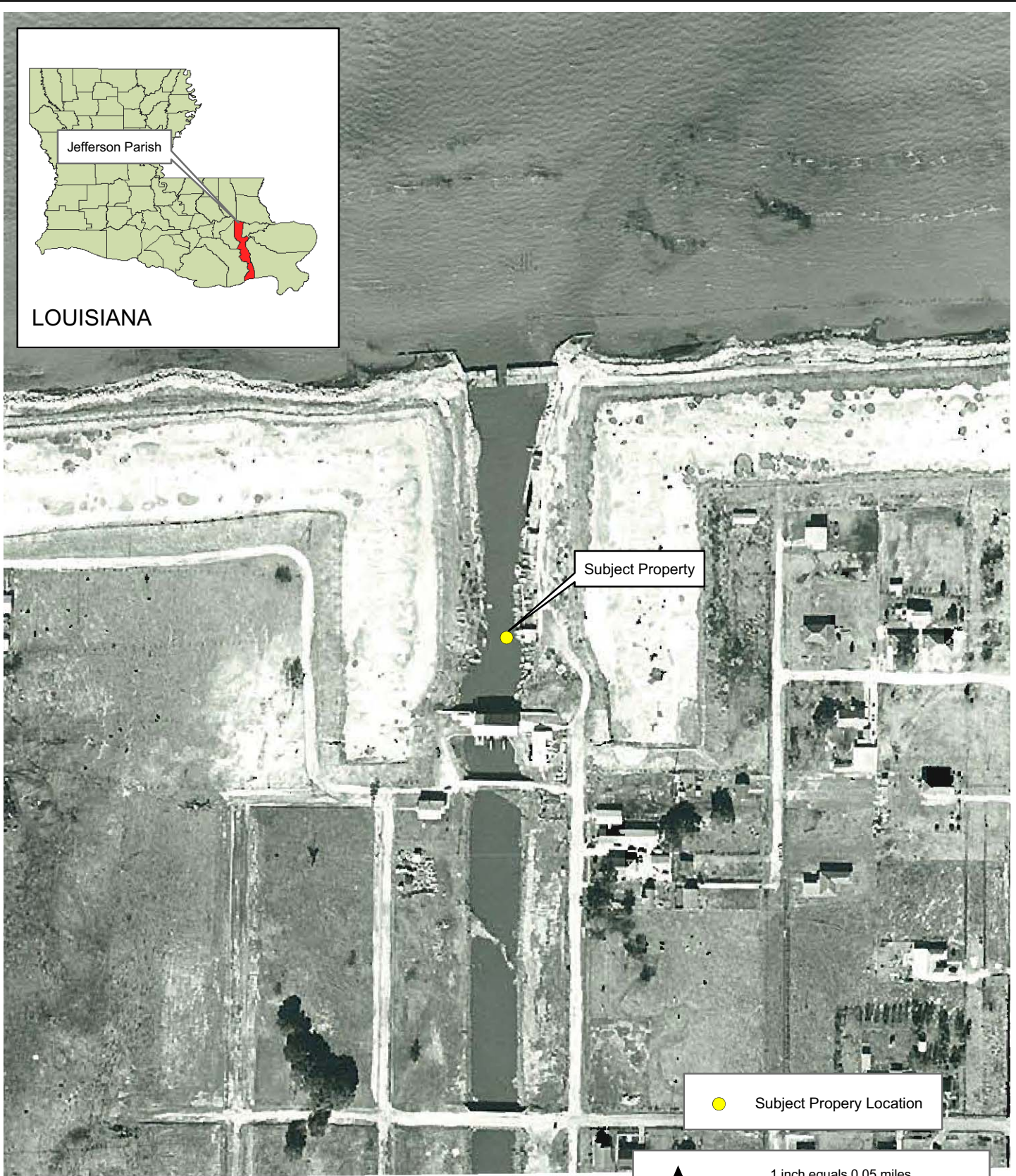
Bonnabel Pump Station  
1953 Spanish Fort, LA 15 minute USGS Topographic Quadrangle



March 2007



LOUISIANA



Subject Property

● Subject Property Location



1 inch equals 0.05 miles

0 100 200 300 400  
Feet

Bonnabel Pump Station  
1957 Aerial Photography



March 2007



Indian Beach 7.5  
1965



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3325

3324

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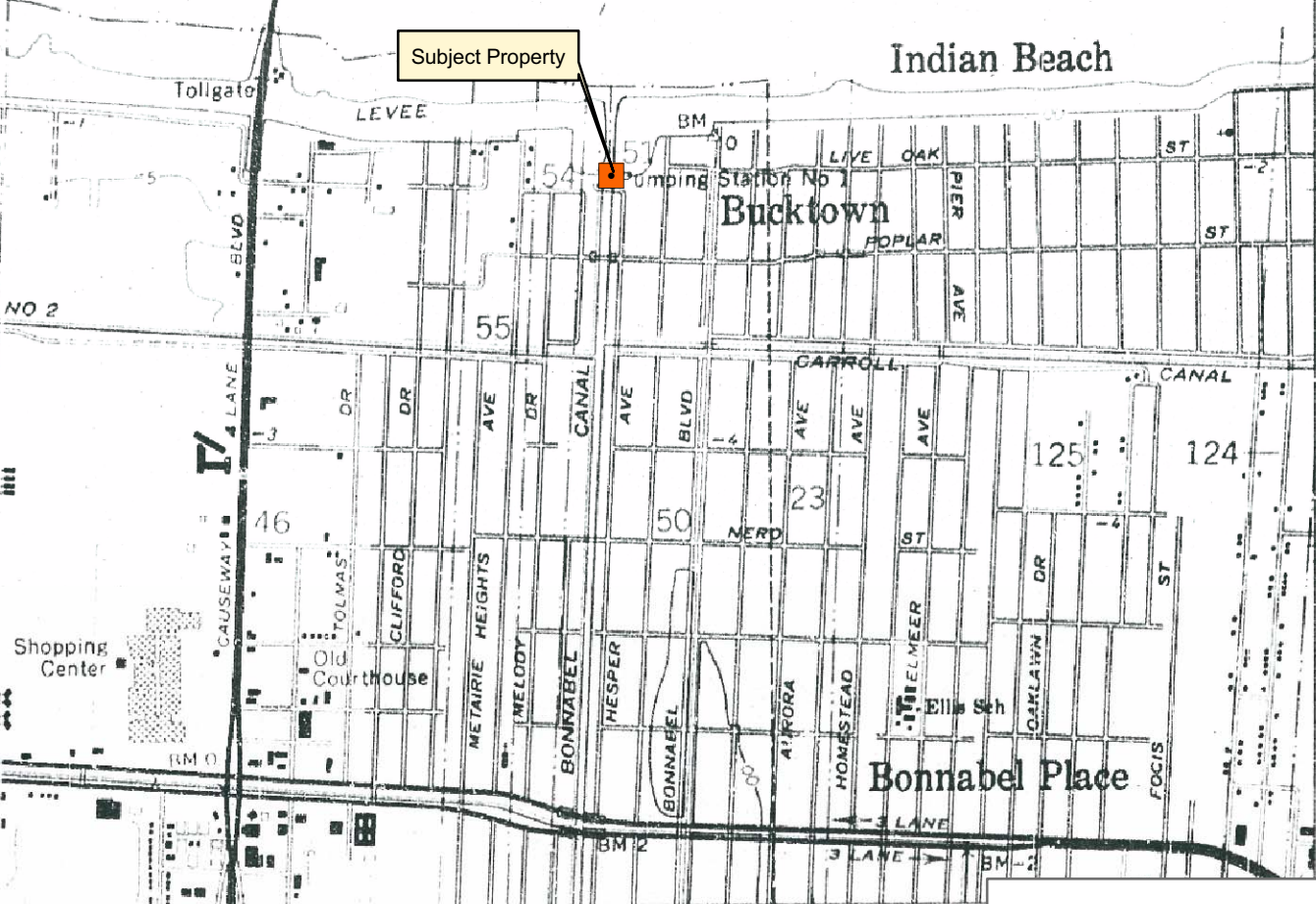
Subject Property

Indian Beach

Bucktown

Bonnabel Place

Subject Property Location



TO INTERSTATE 10  
1.8 MI TO US 61

775000m E

INTERIOR GEOLOGICAL SURVEY  
R 10E R 11E

ROAD CLASSIFICATION

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

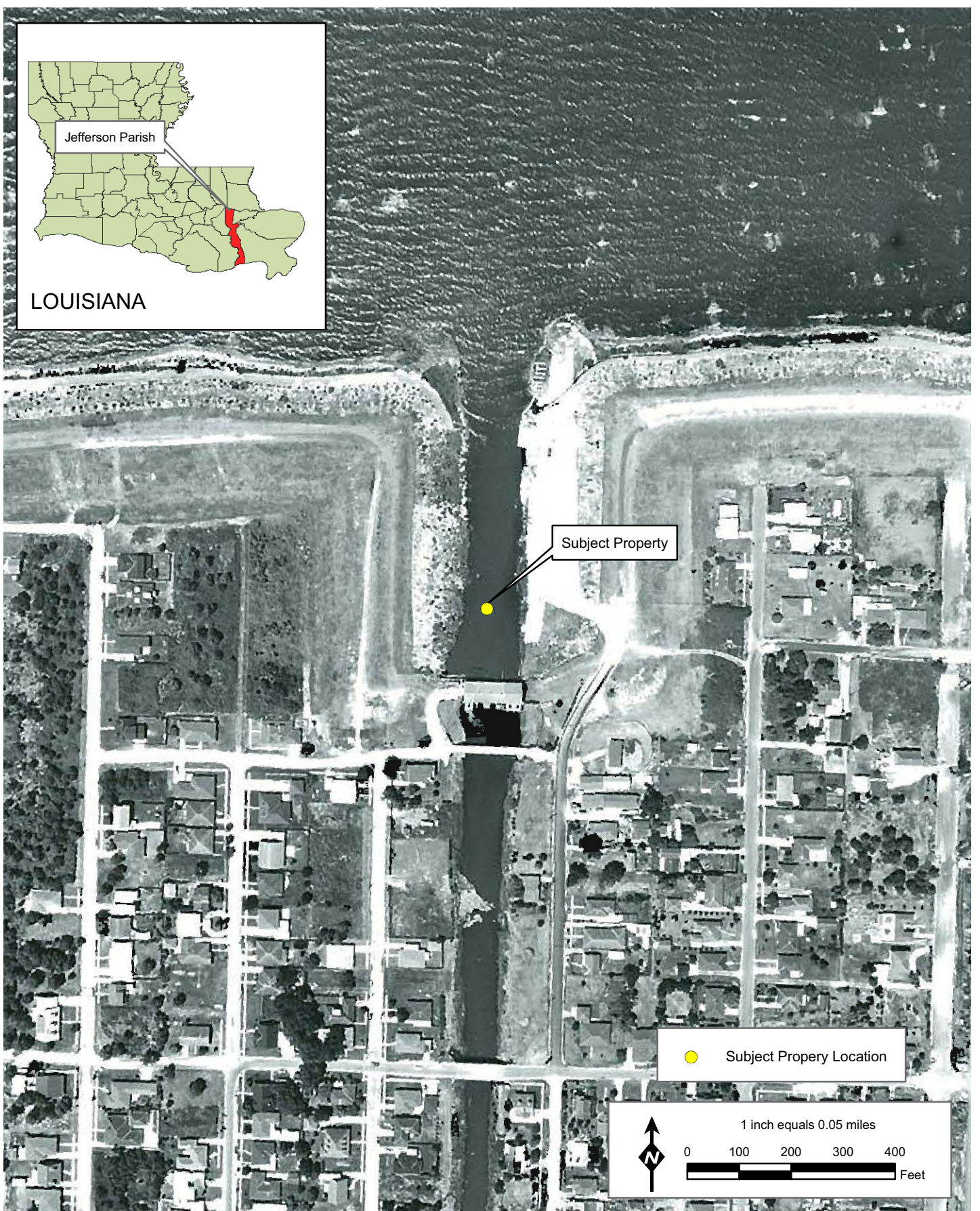


March 2007





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● Subject Property Location



1 inch equals 0.05 miles

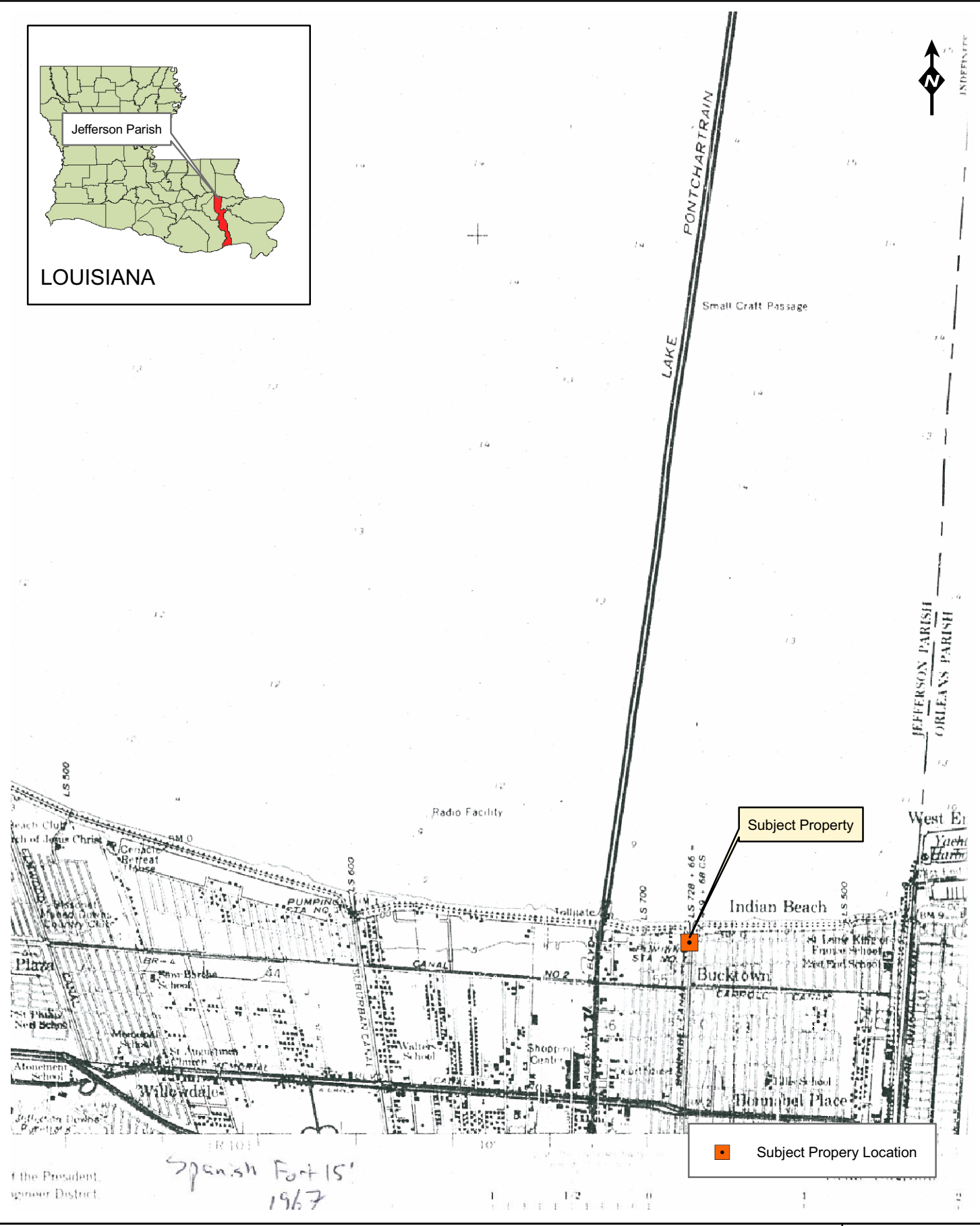
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Bonnabel Pump Station  
1967 Aerial Photography



March 2007





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



March 2007

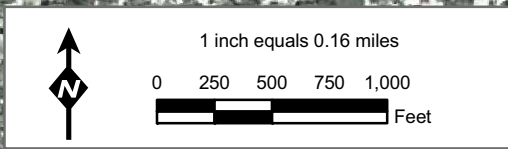




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● Subject Property Location

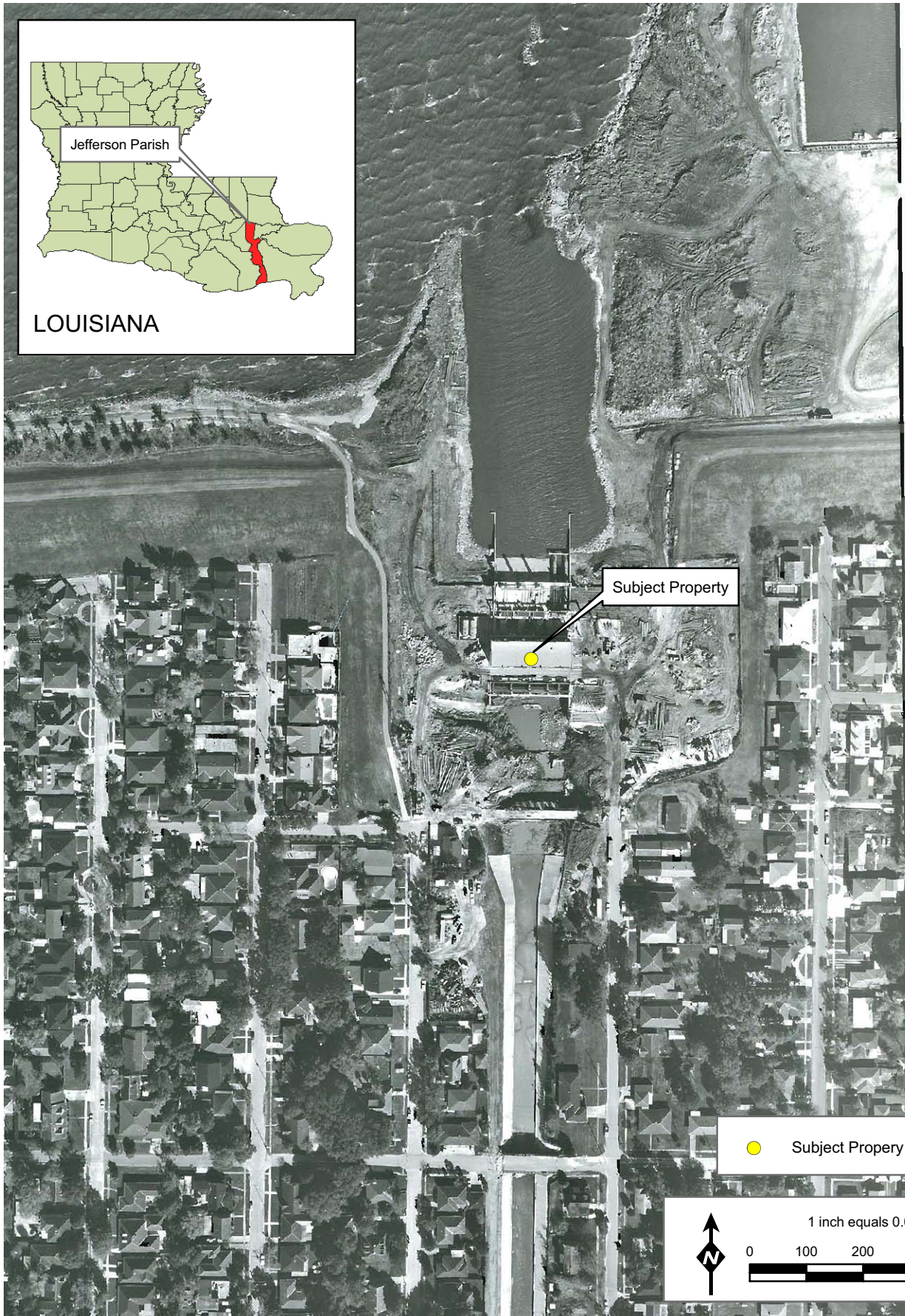


Bonnabel Pump Station  
1975 Aerial Photography

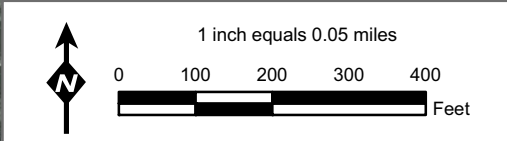


March 2007





● Subject Property Location



Bonnabel Pump Station  
1985 Aerial Photography



March 2007

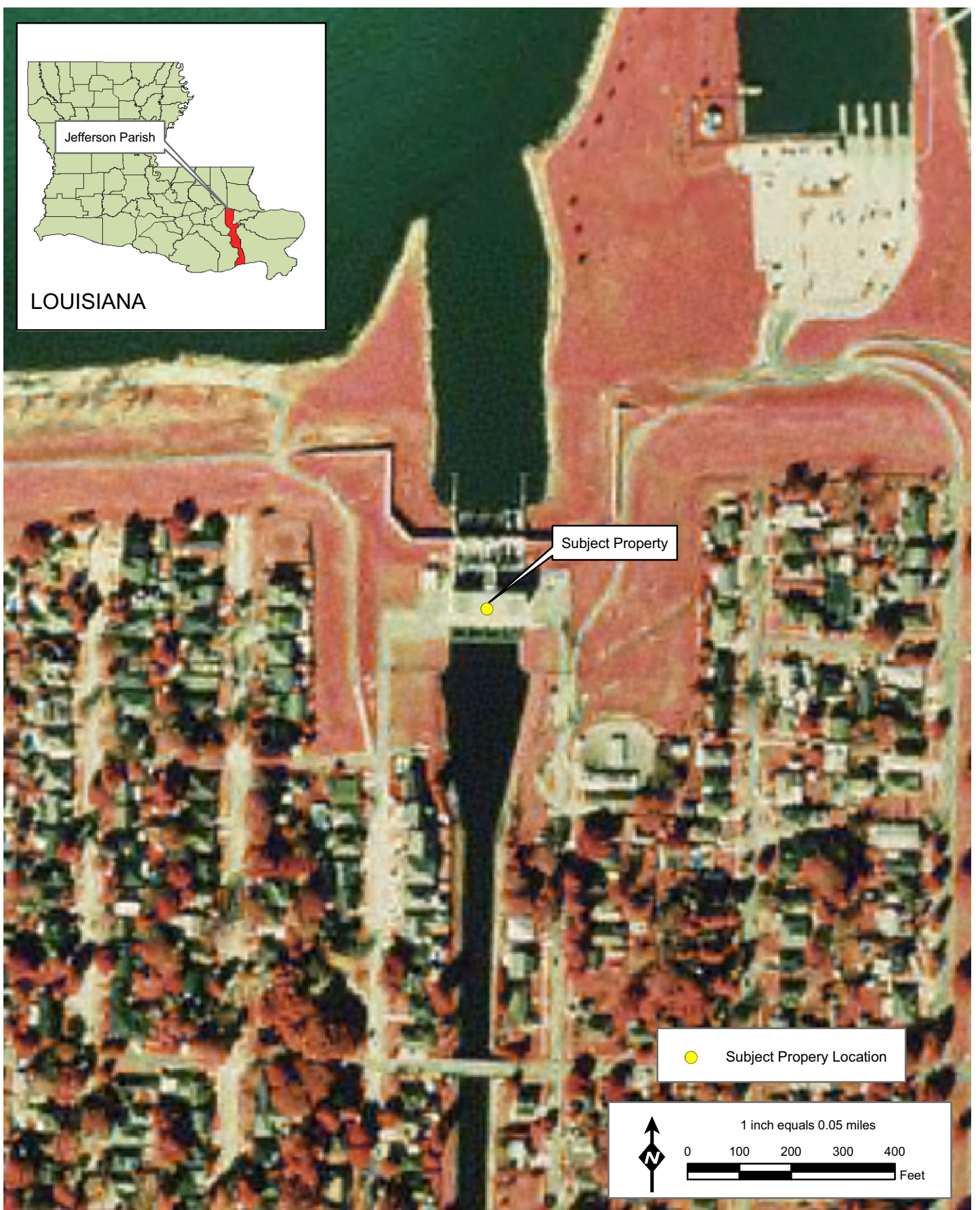




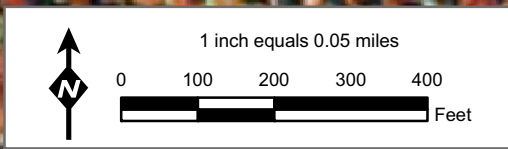




LOUISIANA



● Subject Property Location



Bonnabel Pump Station  
1998 Indian Beach, LA USGS DOQQ



March 2007

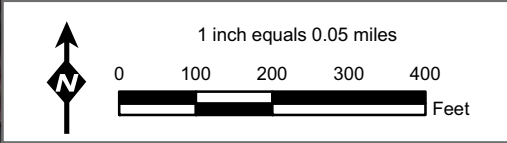




LOUISIANA



● Subject Property Location



Bonnabel Pump Station  
2004 Indian Beach, LA USGS DOQQ

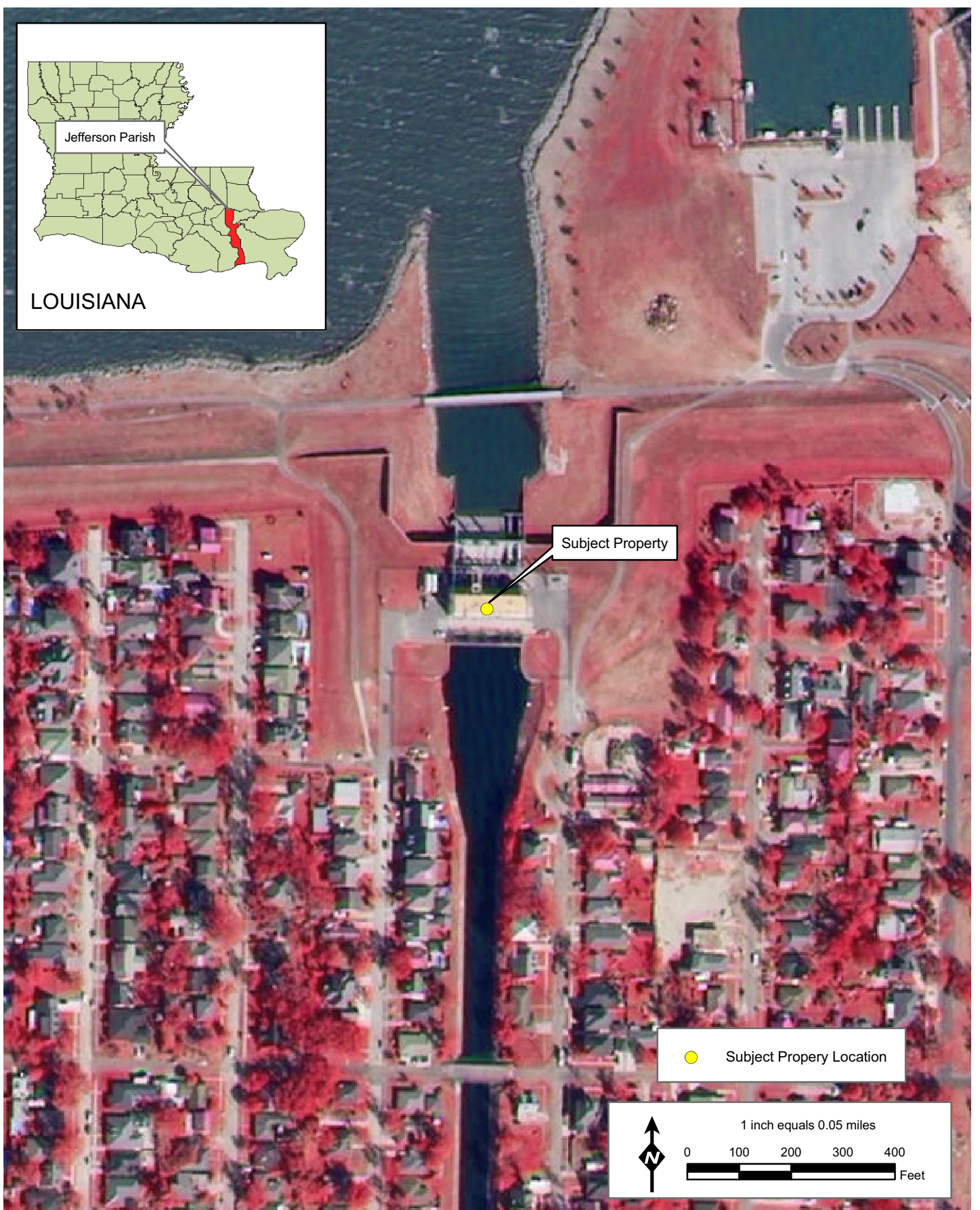


March 2007





LOUISIANA



● Subject Property Location



1 inch equals 0.05 miles

0 100 200 300 400 Feet

Bonnabel Pump Station  
2005 Indian Beach, LA USGS DOQQ



March 2007



*APPENDIX B*  
*SITE PHOTOGRAPHS*







## SITE PHOTOGRAPHS



Photograph 1. Diesel tanks under safe room structure



Photograph 2. Diesel storage tanks with containment basin





Photograph 3. Transformer station on subject property



Photograph 4. View of adjacent property to the west



Photograph 5. View of adjacent property to the east



Photograph 6. Storage container on subject property





Photograph 7. View to the northeast from outfall basin



Photograph 8. View to the northwest from outfall basin

*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**

Performed 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 manager 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*











**FINAL**

**PHASE I  
ENVIRONMENTAL SITE ASSESSMENT**

**Duncan 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**  
**Duncan 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, New Orleans District (hereafter referred to as the User) construction of infrastructure and improvements to the Duncan Pump Station property (hereafter referred to as the subject property), owned by Jefferson Parish, Louisiana. The 11.8-acre parcel is located at the north end of the Duncan Drainage Canal adjacent to Lake Ponchartrain, at 1800 Joe Yenni Boulevard, Kenner, 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**

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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 at 1800 Joe Yenni Boulevard, Kenner, 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.

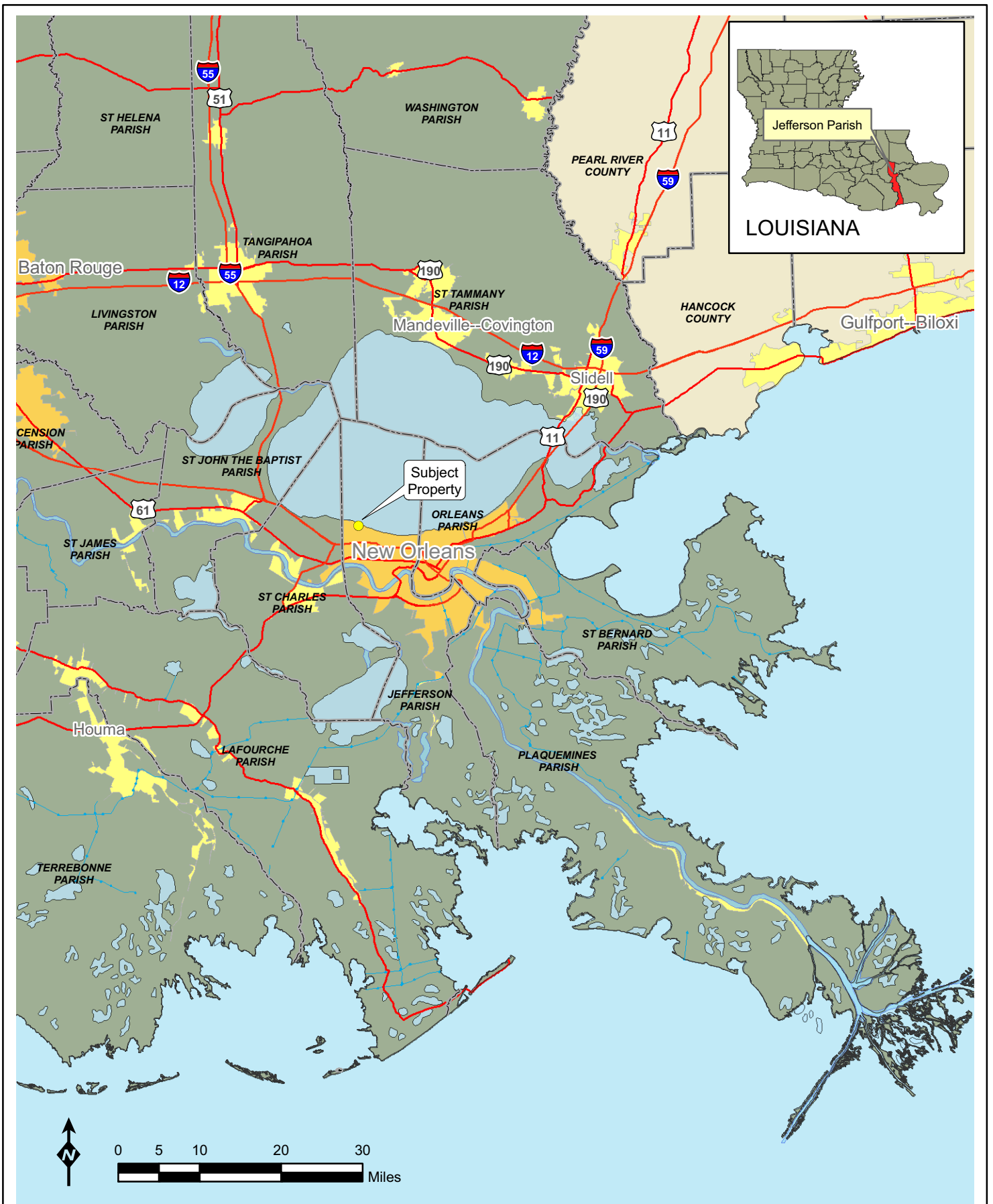


Figure 1: Vicinity Map



March 2007









Figure 3: Duncan Pump Station Area



March 2007

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## 2.0 SURVEY METHODOLOGY

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### 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's representative 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 for the Parish Line Pump Station to Duncan Pump Station Corridor Study showing all information pertaining to the database searches is presented in Volume II (C). 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 (C). 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 there was an oil spill from a dropped pole-mounted transformer at Jefferson Downs, 1300 Joe Yenni Boulevard in 1999, reported in the Emergency Response Notification System (ERNS) database. 15 gallons of non-PCB transformer oil were spilled into the soil and water, and the site was cleaned by a response contractor. No risk to the subject property is indicated by this incident. A report on the incident is included in Volume II (C).

The EDR report indicated that there was a gasoline spill in Lake Ponchartrain in 1992 directly south of Williams Boulevard from an oil drilling rig in the lake. No follow-up or remediation was reported, and due to the time elapsed, this incident does not constitute a business environmental risk to the subject property. A report on the incident is included in Volume II (C).

The ERNS database reported that there was an oil spill along the shore of Lake Ponchartrain at the end of Williams Boulevard in 1998 from an unknown source. No cleanup or other follow-up reports were indicated, and the time elapsed since the incident would preclude any business environmental risk to the subject property from the incident. A report on the incident is included in Volume II (C).

The EDR report indicated that there is one site/facility 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. The Jefferson Downs Finish Line Maintenance site (page 3 of the Map Findings section of the EDR report, Volume II, Section C) is listed as a Conditionally Exempt Small Quantity Generator of hazardous waste in the RCRA-SQG and FINDS database. No violations were reported for this facility, and the distance from the subject property would preclude any business environmental risk to the subject property.

EDR reported 32 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 1936 to 1992. Historic aerial photographs were available from 1947 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.

**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 7.5Minute Quadrangle	1:24,000
1947	Aerial Photograph	---
1952	Indian Beach, LA 7.5-Minute Quadrangle	1:24,000
1953	Spanish Fort, LA 15-Minute Quadrangle	1:62,500
1965	Indian Beach, LA 7.5Minute Quadrangle	1:24,000
1967	Aerial Photograph	---
1967	Spanish fort, LA 15-Minute Quadrangle	1:62,500
1970	Aerial Photograph	---
1975	Aerial Photograph	---
1992	Indian Beach, LA 7.5Minute 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

## 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 of the subject property is provided 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 visual evidence of potential hazardous or toxic substances, or the presence of potential sources for environmental impacts,

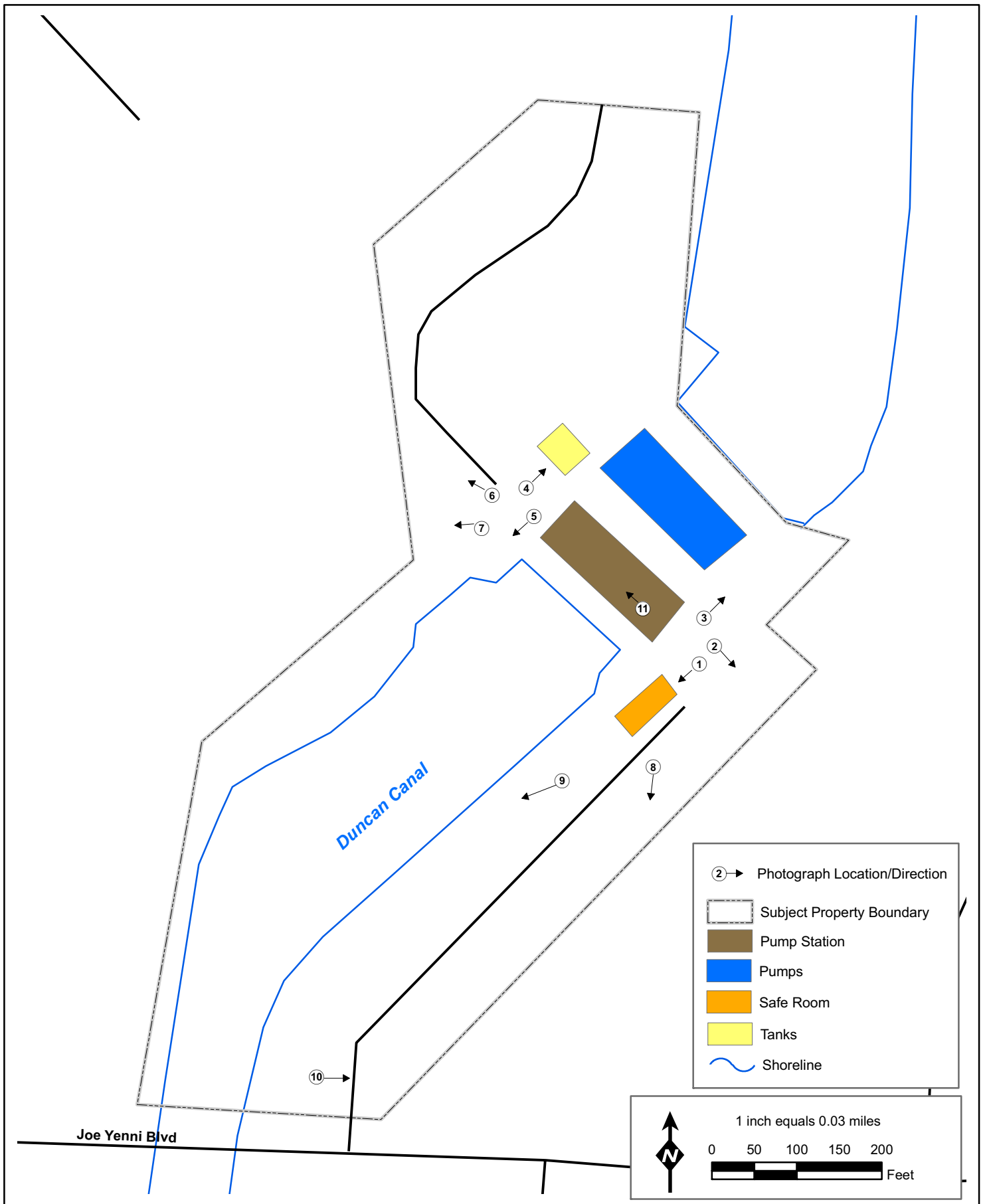


Figure 4: Survey Map of Duncan Pump Station



March 2007



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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.

The subject property consists of approximately 11.8 acres, as defined by GPS mapping of observed property boundaries in the field. There is a pump station structure on the property, and a temporary storage container (Connex box) (Photograph 5, Appendix B). According to the operator of the station, the container contains spare parts and equipment. Two other storage containers are located along the east property boundary, and were placed there by a contractor (Photograph 2, Appendix B). The contents of those containers are unknown. 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 Duncan Drainage Canal, and it discharges into Lake Ponchartrain on the opposite side of the levee. The subject property is bordered on the north by Lake Ponchartrain, and on the west and south by developed residential neighborhoods. It is bordered on the east by multi-family residential and commercial office buildings and the Ponchartrain Center. Additional residential development was underway at the time of the site survey directly west of the subject property. The property west of the pump station was previously the location of the Jefferson Downs horse racetrack.

Used oil and other lubricants are collected in 55-gallon drums inside the pump station building, 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 storage for the station pump engines is contained in three horizontal storage tanks with a combined capacity of 58,500 gallons (Photograph 4, 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, and waste water and sewage is handled by the city wastewater treatment system. 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 transformer station is located on the subject property (Photograph 3, Appendix B), but there is no PCB content in the transformers. Five diesel day tanks with a capacity of 500 gallons each are located inside the main pump building (Photograph 11, Appendix B). Lubricating oil for the engines is stored inside the main pump building.

There is a storm safe room located southeast of the main building (Photograph 1, Appendix B), and there is a 500-gallon diesel storage tank located beneath the safe house with no containment basin. No hazardous materials or petroleum products were observed exposed to the weather outside the pump station building.

## **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 mostly built in 1983 to 1985. He stated that there had been no oil or fuel spills on the Duncan property. 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 is 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. The transformers are fairly new, with no PCB content in the oil.

### **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.

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## **3.0 FINDINGS FOR SUBJECT PROPERTY**

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### **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 1947 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 1936 topographic map, where the pump station was indicated at the end of the Duncan Canal in the location of the subject property. At that time, only Williams Boulevard was developed north to the lake front. The 1938 topographic map showed no change from 1936.

The 1947 aerial photograph showed the old pump station in place to the northwest of the current pump station location. No other development in the area was indicated. The 1952 topographic map indicated a road along the Duncan Canal to the pump station, and several buildings along Williams Boulevard to the southeast. A radio tower was shown east of the pump station. The 1953 topographic map showed no change from 1952.

On the 1965 topographic map, numerous streets were indicated along Williams Boulevard south of the pump station, but no development was indicated near the subject property. The 1967 aerial photograph indicated the old pump station, and several other buildings south of the station along the access road. The 1967 topographic map showed little change from the 1965 topographic map.

The 1970 aerial photograph showed the Jefferson Downs racetrack has been constructed directly west of the old pump station. Except for the radio towers east of the subject property, all of the other land in the area appeared to be agricultural. The 1975 aerial photograph indicated little change from 1970, except that the previously tilled agricultural land in the area had been overgrown with trees and brush.

The 1992 topographic map indicated the new pump station in place on the subject property, Jefferson Downs was still in place, and the city streets south of the subject property were developed. A marina area was indicated on the lake shore northeast of the subject property. The 1998 aerial photograph indicated that the old canal to the former pump station was filled in, and several large ponds were shown southeast of the subject property.

In the 2004 aerial photograph, Jefferson Downs racetrack had been removed, and residential streets were being constructed in its place. The previously indicated ponds were filled, and the present commercial buildings were built in those locations. The current pump station was shown in its current configuration. The 2005 aerial photograph showed no change from 2004.

### **3.2 CURRENT USE**

#### **Environmental Setting**

The subject property is located at 1800 Joe Yenni Boulevard in Kenner, Louisiana. The entire property appears to be disturbed, and the ground cover consists of maintained turf grass and shell/gravel surfaces, with concrete paved areas around the pump station building. All of the adjacent waterways (canals) inside the levee appear manmade. The undeveloped land area immediately west of the subject property, the former site of the racetrack, was under construction for residential development. The general area around the subject property can be characterized as urban developed. A clay levee with a concrete top wall separated 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. 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 or on adjacent properties.

### **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 no PCB content were observed on a concrete pad on the subject property (Photograph 3, Appendix B). They appeared to be in good working condition with no visible leaks.



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## 4.0 FINDINGS FOR ADJACENT PROPERTIES

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### 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 south, west and east is urban developed property with mixed commercial and residential use. Adjacent property to the north across the levee is Lake Ponchartrain. No *recognized environmental conditions* were observed on any adjacent properties.

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## **5.0 APPLICABLE REGULATORY COMPLIANCE ISSUES**

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### **5.1 LIST OF COMPLIANCE ISSUES AND CORRECTIVE ACTIONS**

According to the EDR report (Volume II, Section C) 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

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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**

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No deletions or deviations from ASTM Practice E 1527-05 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 land 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**

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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**

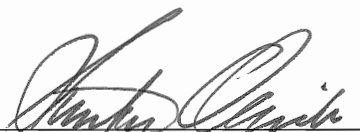
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The opinions and conclusions set forth in this report, either expressed or implied, are based solely upon the work and information described herein. No soil, water, or air sampling and analysis were conducted for the subject property; therefore, no 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

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EDR 2007, Parish Line P.S. to Duncan P.S., Kenner, LA, EDR DataMap and Corridor Study, I.N. 01870753.3r, 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](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) 1947 aerial photograph

USACE 1967, aerial photograph

USACE 1970, aerial photograph

USACE 1975, 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 15-minute Quadrangle

USGS 1965, Indian Beach, Louisiana 7.5-minute Quadrangle

USGS 1967, Spanish Fort, Louisiana 15-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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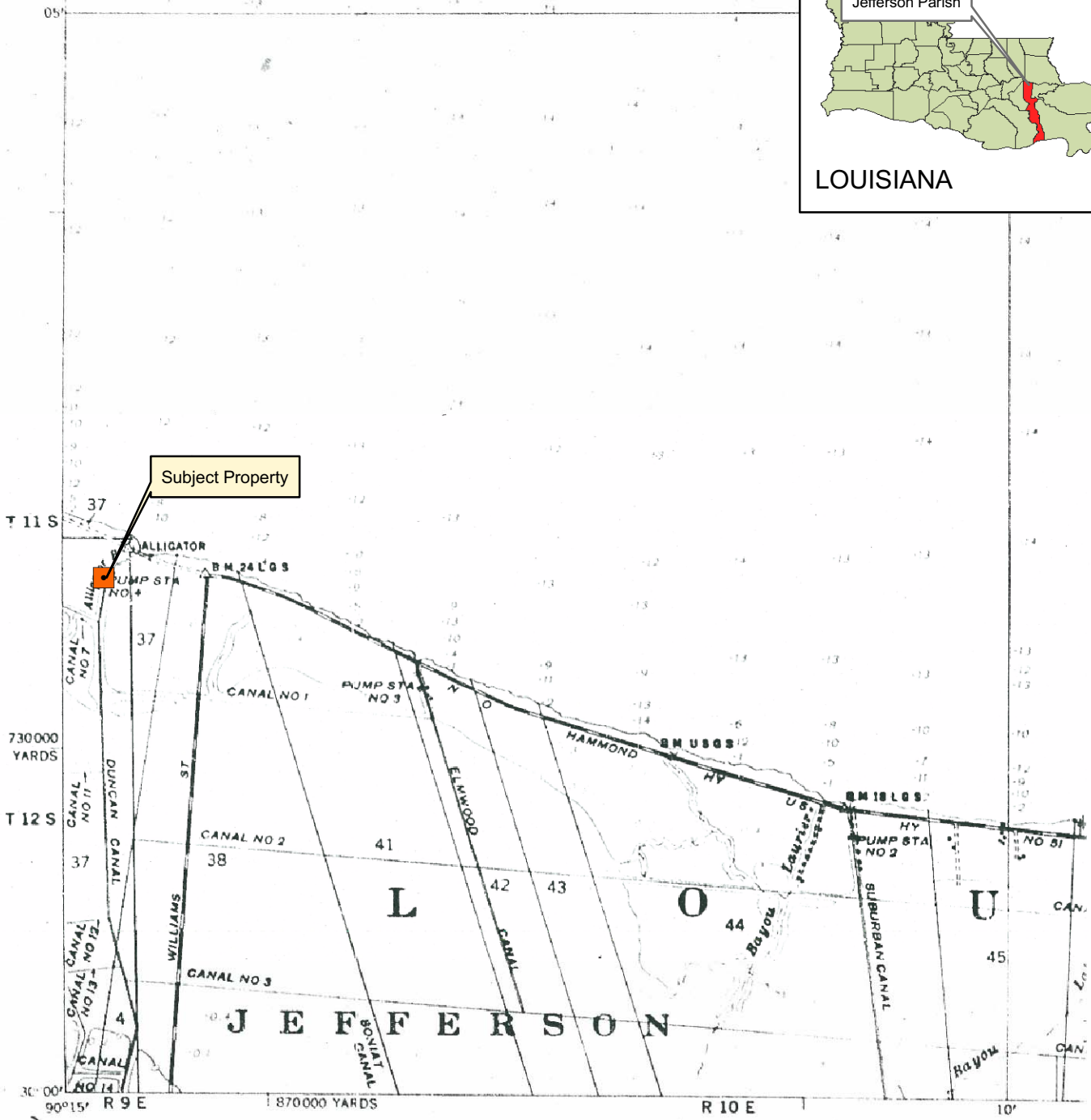
*APPENDIX A*  
*HISTORICAL TOPOGRAPHICAL MAPS AND AERIAL PHOTOGRAPHS*

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Subject Property

Prepared under the direction of the Pres deat. Mississippi River Commission.  
Horizontal control by Mississippi River Commission, Corps of Engineers, U. S. Army,  
Second New Orleans District, U. S. C. & G. S and Louisiana Geodetic Survey (L. G. S.)  
Vertical control taken from Indian Beach quadrangle and Spanish Fort

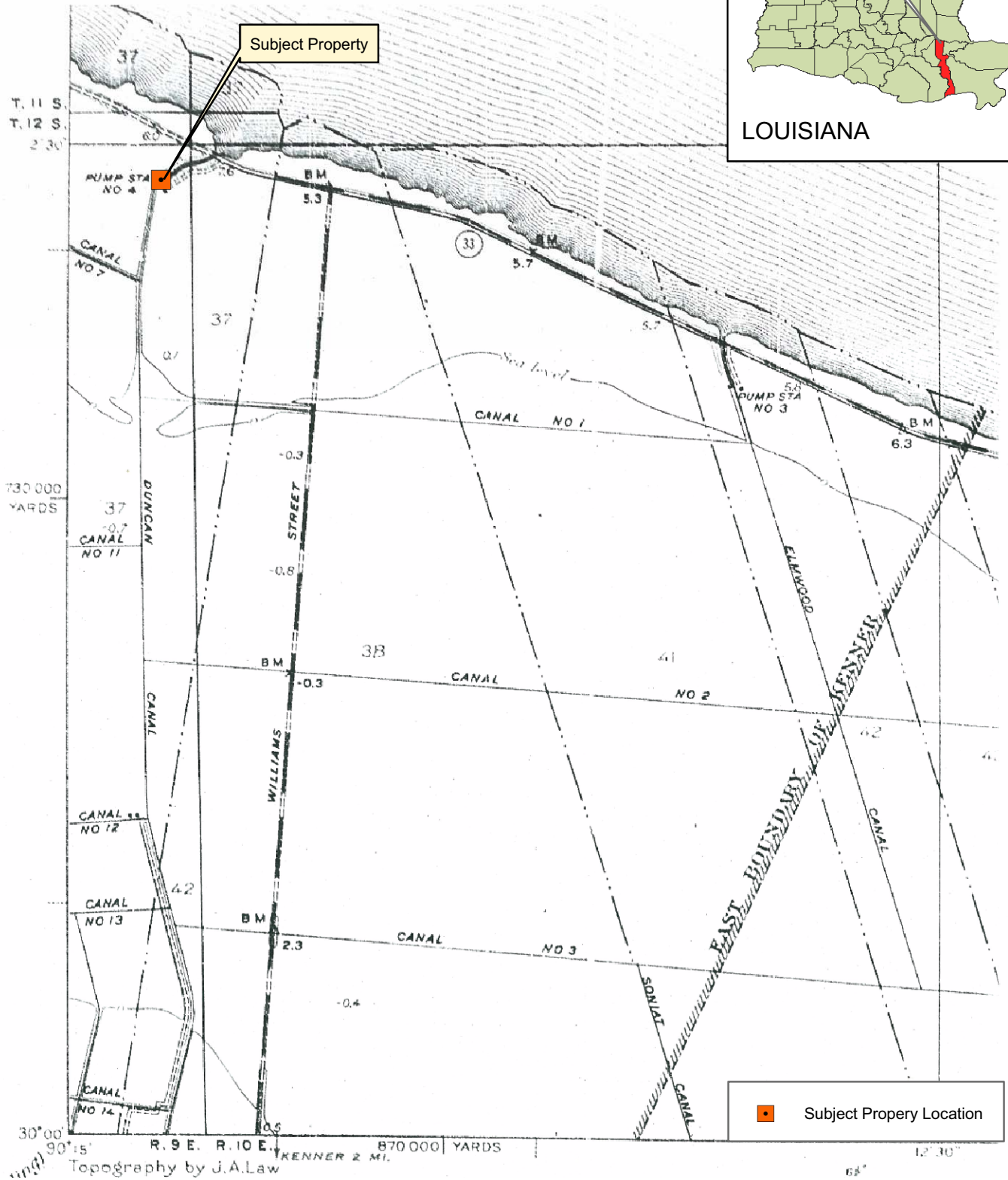
Spanish Fort 1438 (1936)  
15'

 Subject Property Location

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



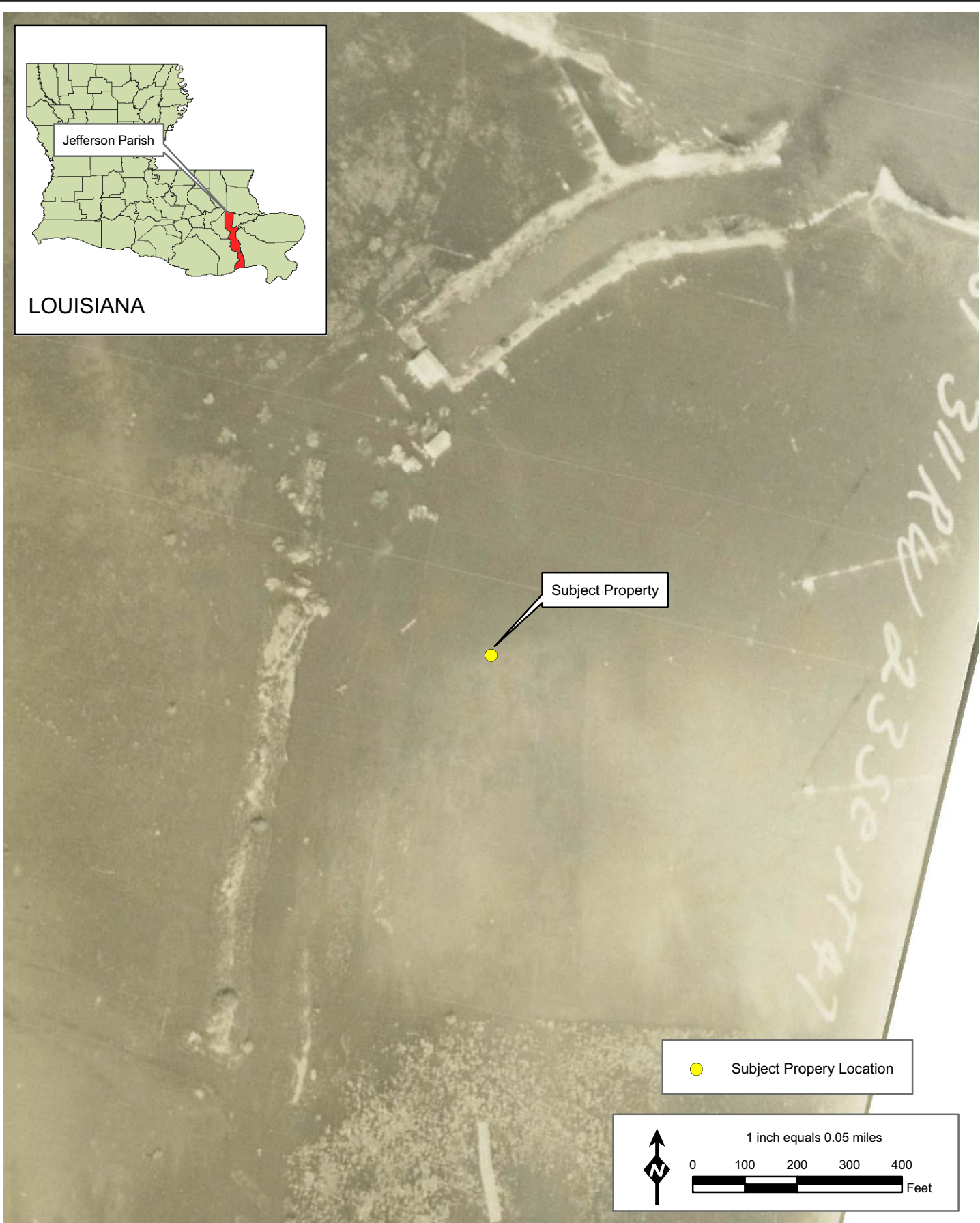
March 2007



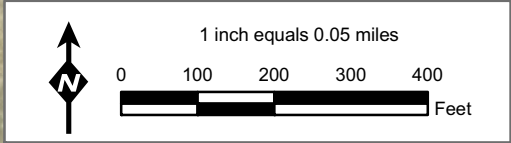
Duncan Pump Station  
1938 Indian Beach, LA 7.5 minute USGS Topographic Quadrangle



March 2007



● Subject Property Location

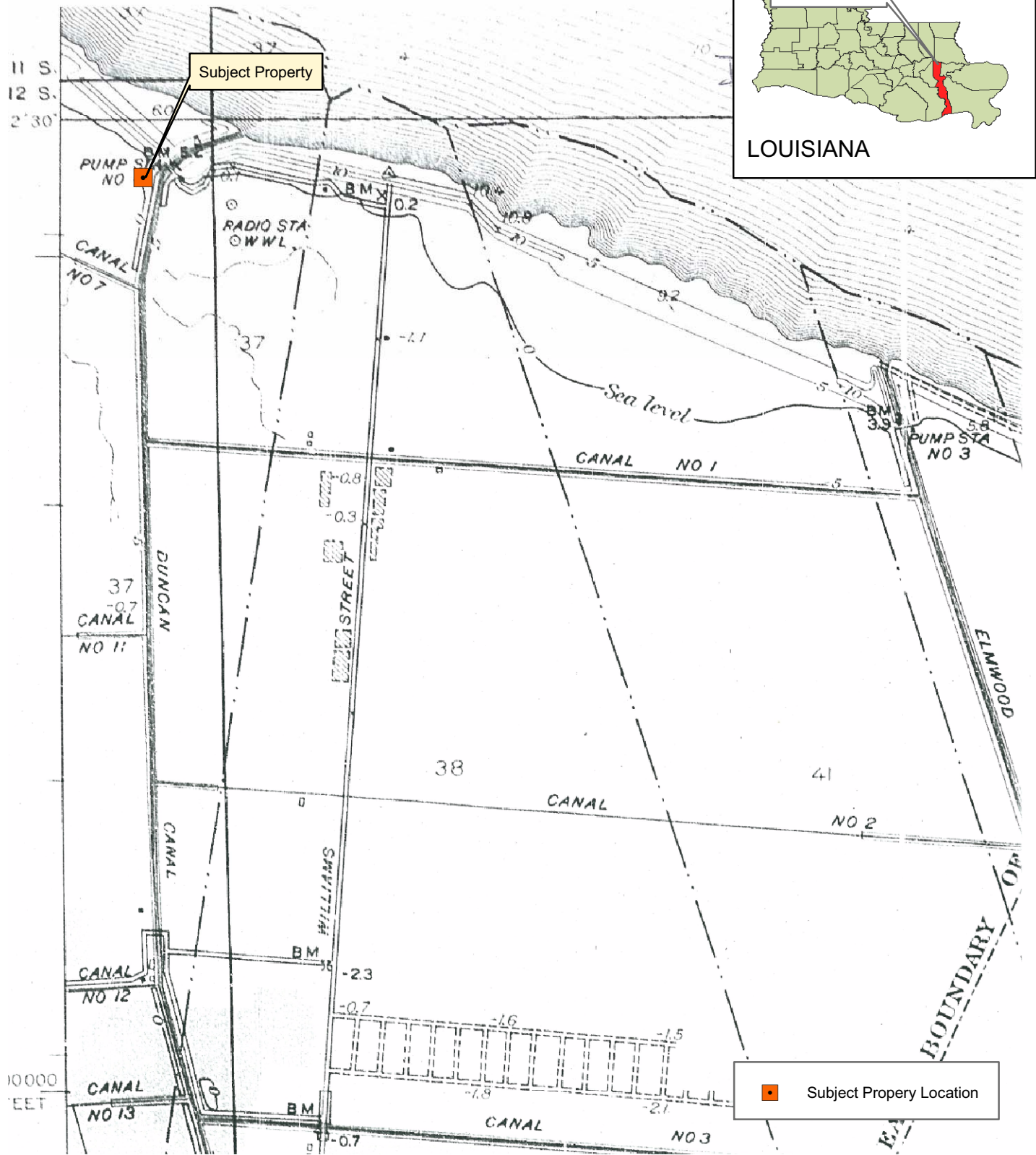


Duncan Pump Station  
1947 Aerial Photography



March 2007

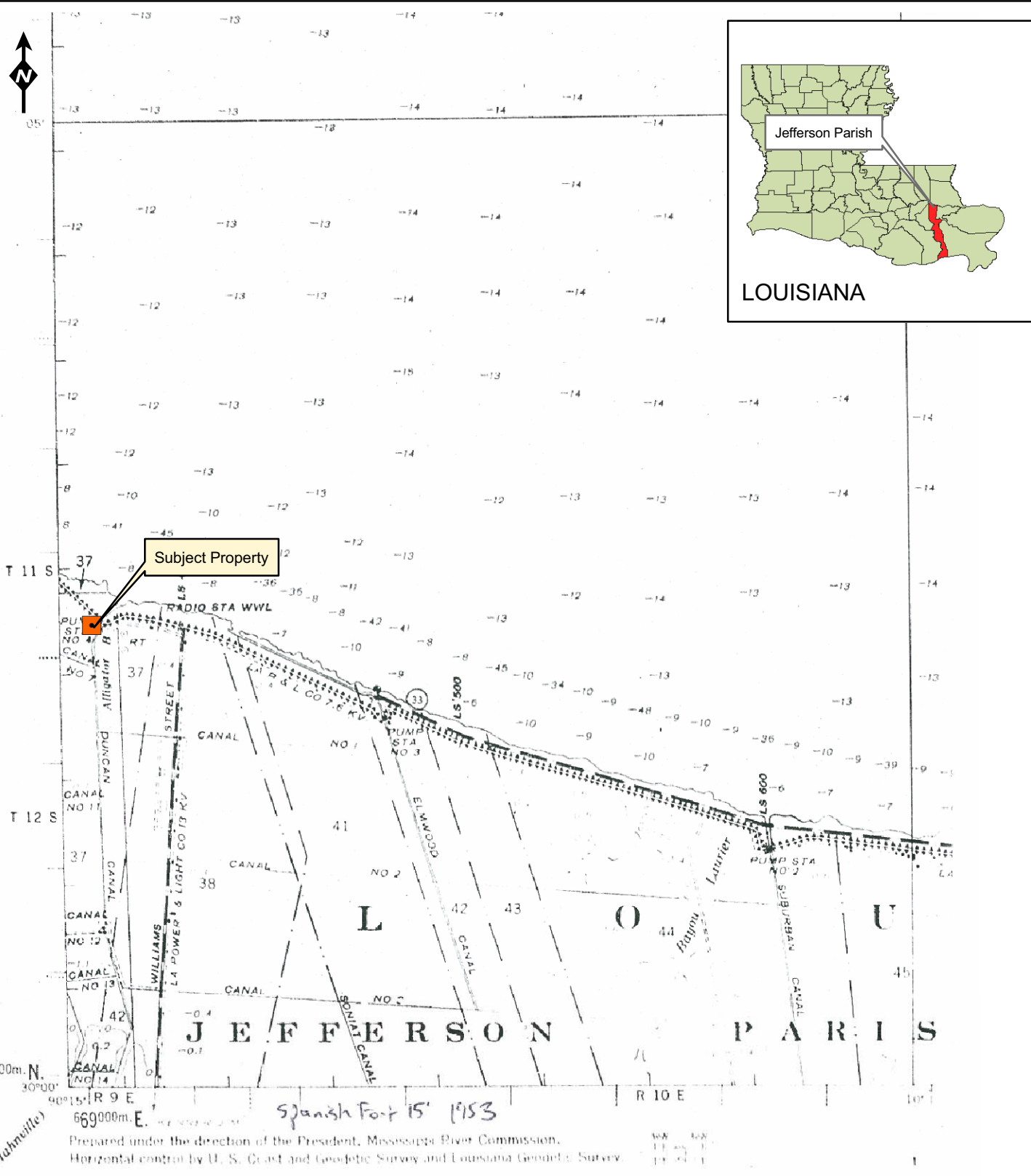




Duncan Pump Station  
1952 Indian Beach, LA 7.5 minute USGS Topographic Quadrangle



March 2007



Subject Property

■ Subject Property Location

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



March 2007





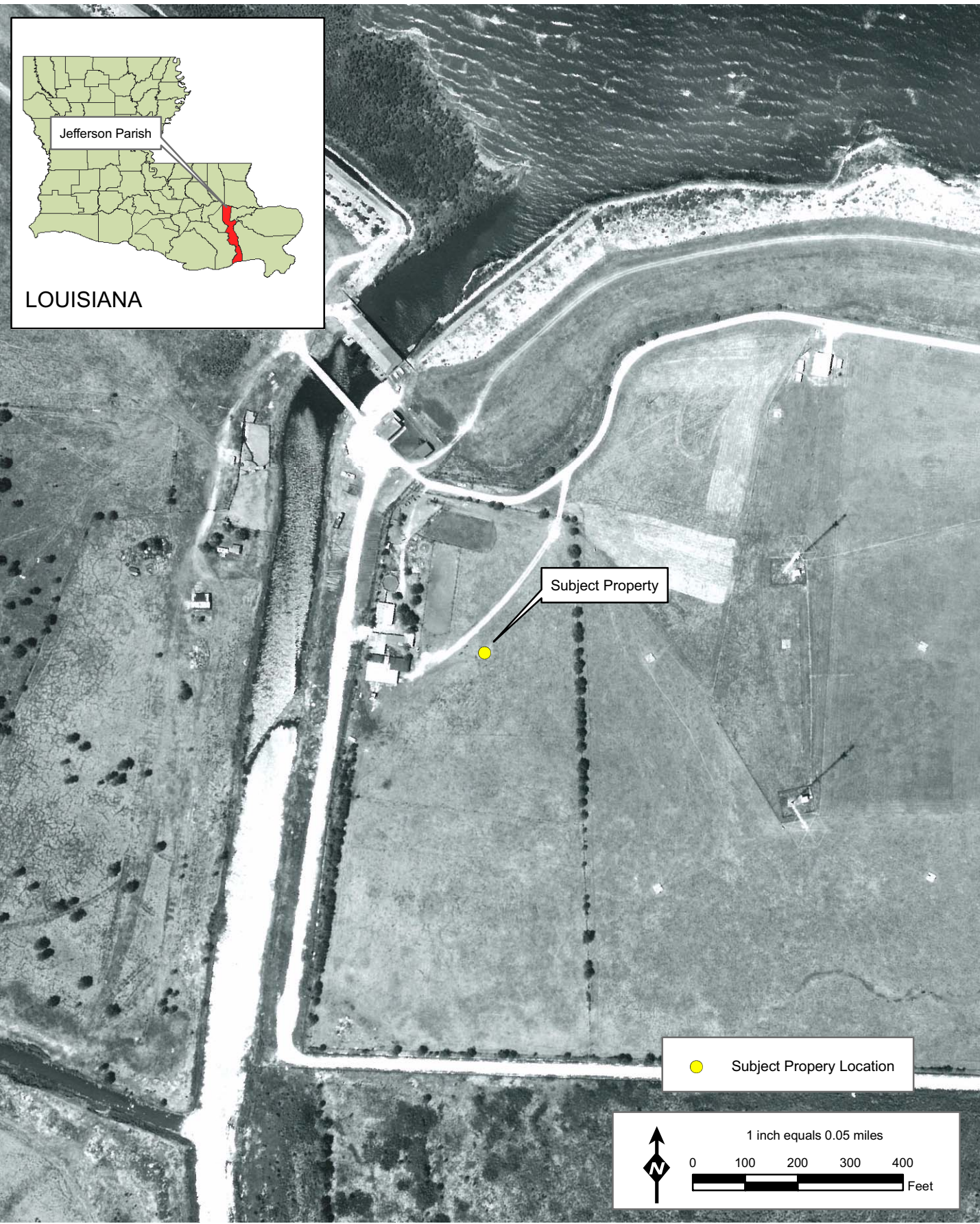
■ Subject Property Location

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

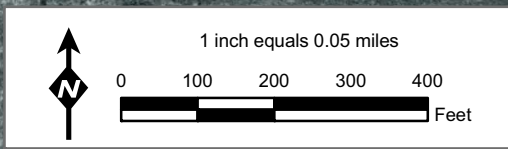


March 2007





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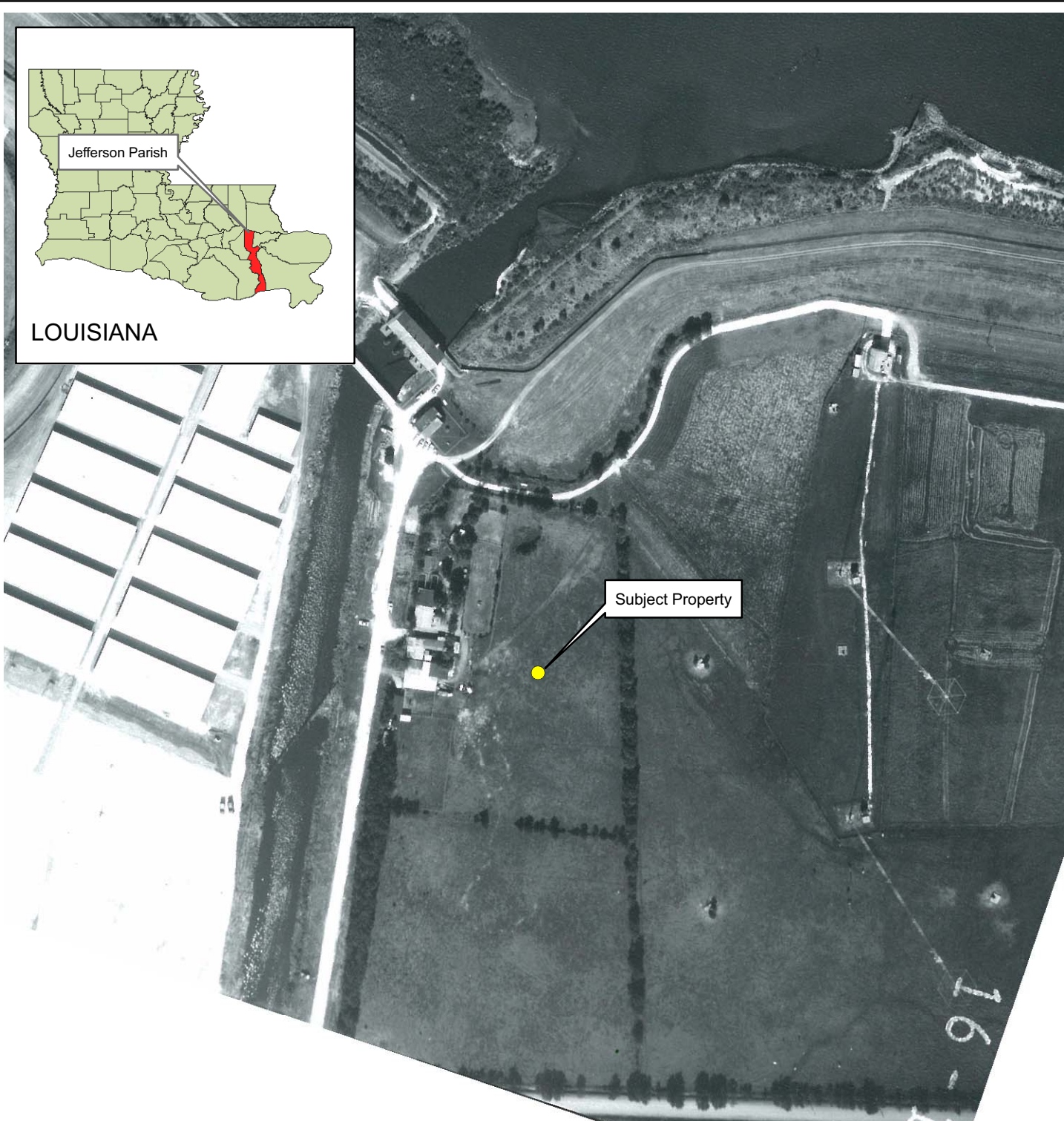
Duncan Pump Station  
1967 Aerial Photography



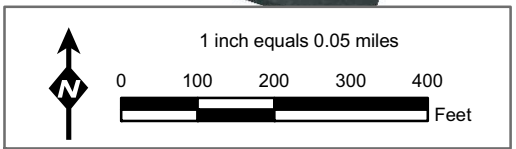
March 2007



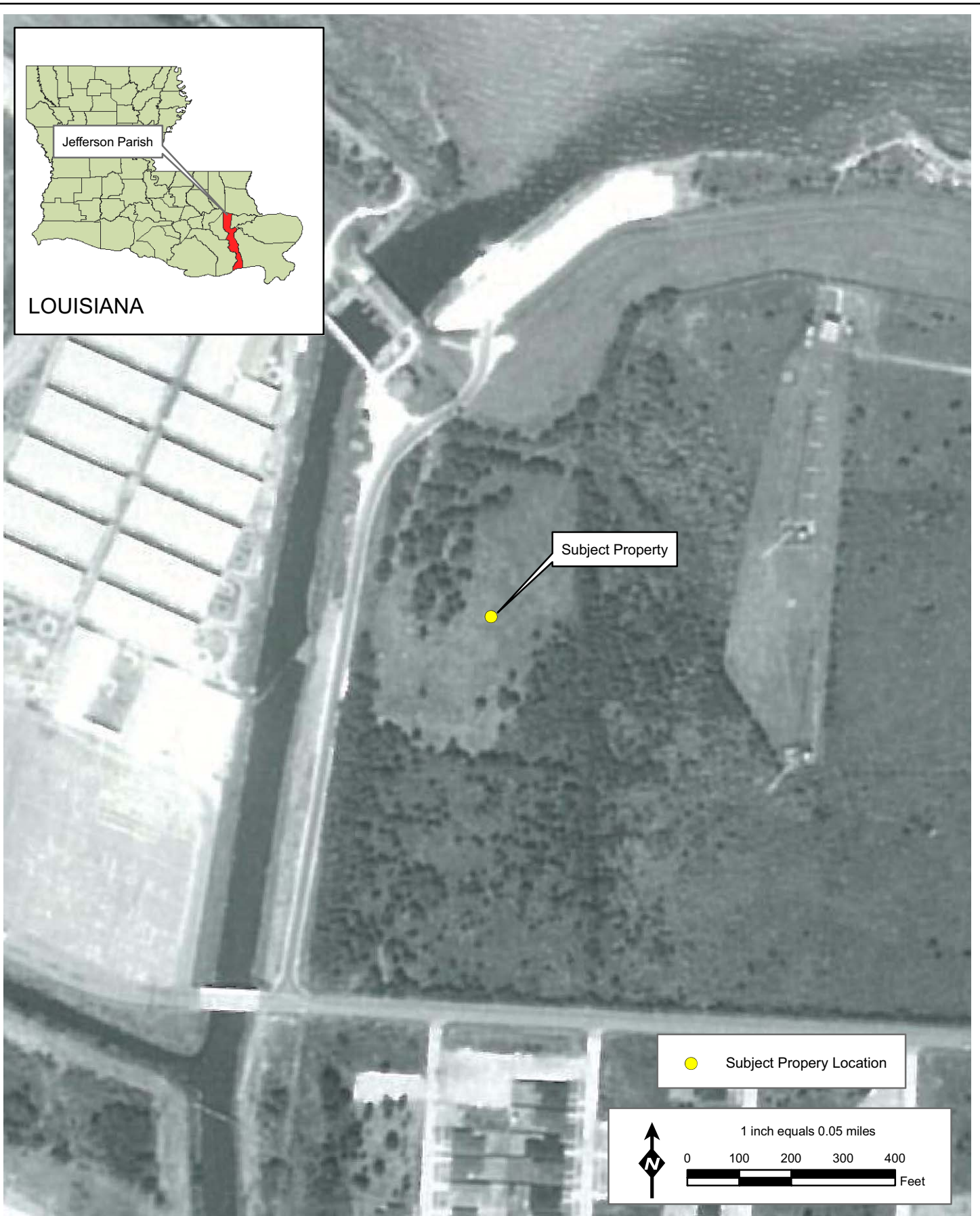




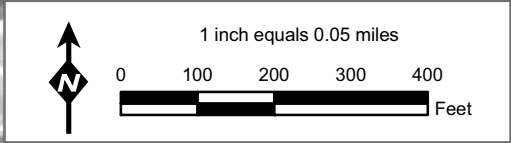
● Subject Property Location







● Subject Property Location



Duncan Pump Station  
1975 Aerial Photography



March 2007



Duncan Pump Station  
 1992 Indian Beach, LA USGS Topographic Quadrangle

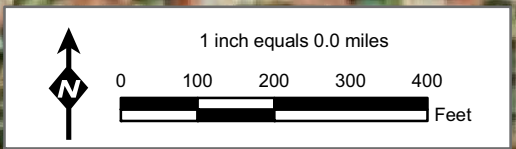


March 2007





● Subject Property Location



Duncan Pump Station  
1998 Indian Beach, LA USGS DOQQ

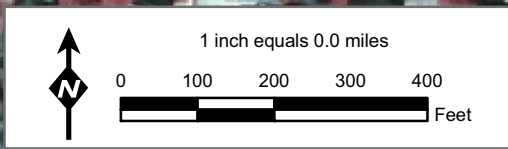


March 2007





● Subject Property Location

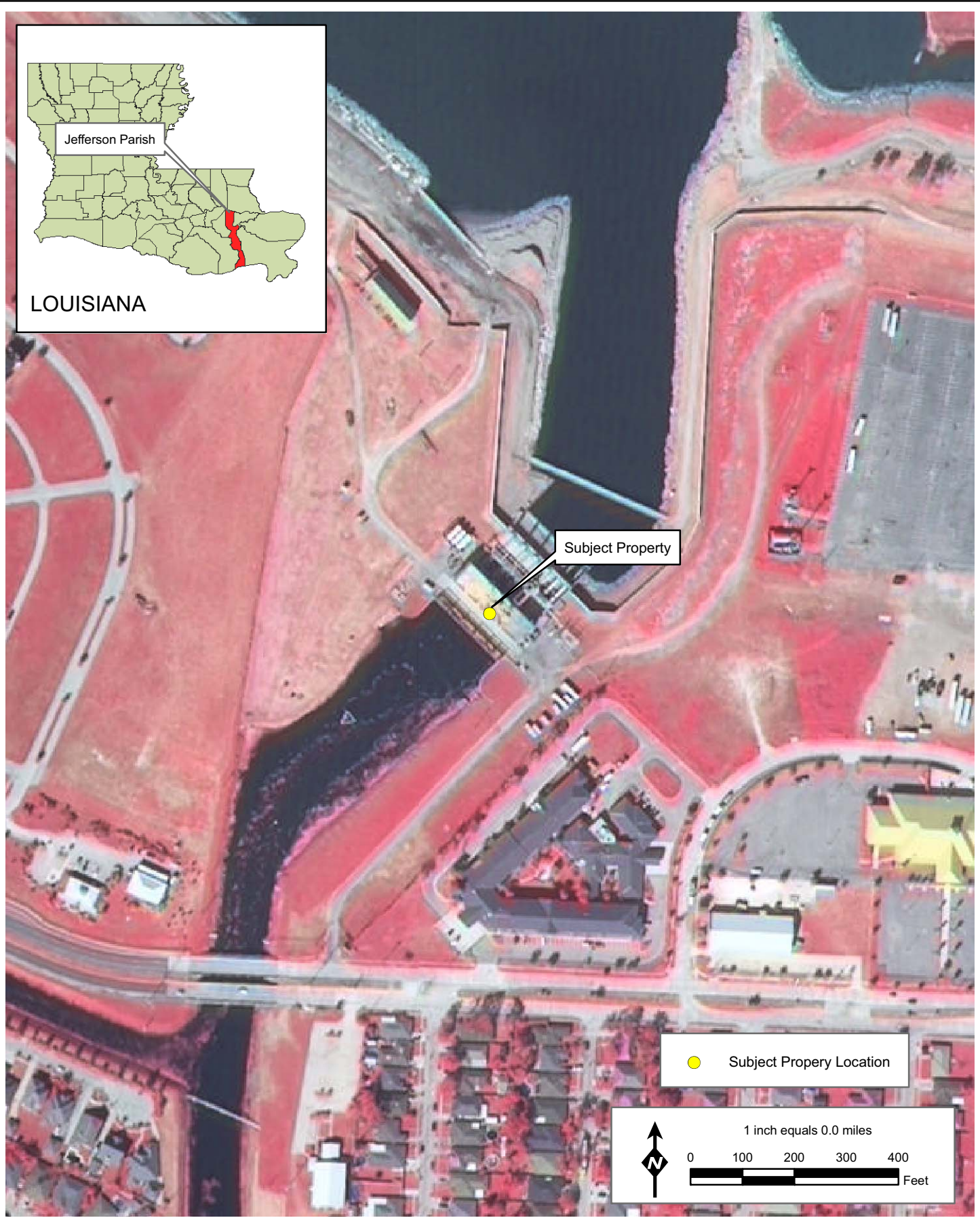


Duncan Pump Station  
2004 Indian Beach, LA USGS DOQQ

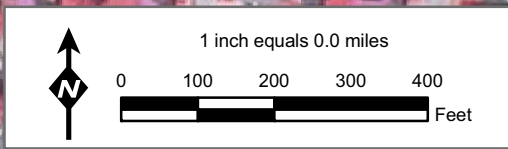


March 2007





● Subject Property Location



Duncan Pump Station  
2005 Indian Beach, LA USGS DOQQ



March 2007

*APPENDIX B*  
*SITE PHOTOGRAPHS*







## SITE PHOTOGRAPHS



Photograph 1. Diesel tank at base of storm safe room



Photograph 2. Storage containers on subject property



Photograph 3. Electrical transformers on subject property



Photograph 4. Diesel storage tanks and containment basin





Photograph 5. Storage container on subject property



Photograph 6. Well pump house on subject property



Photograph 7. View to the west of adjacent property



Photograph 8. View to the south toward subject property entrance





Photograph 9. Intake basin south of pump station



Photograph 10. View of adjacent property to the east





Photograph 11. Interior view of pump station

*APPENDIX C*  
*LIST OF PREPARERS*





The following people were primarily responsible for preparing this report.

<b>Name</b>	<b>Discipline/Expertise</b>	<b>Experience</b>	<b>Role In Preparing Report</b>
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**

Performed 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 manager 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: 08:15am  
Project Name: Jefferson Parish  
Stormproofing  
Denise Rousseau      Manuel C. Aspuria  
Employee: Ford      Person Contacted:  
Jefferson Ph. Dept.  
Organization: of Public Works      Telephone No.: (504) 838-4373  
Reason for  
Call/Topics  
Discussed: Phase I property owner/operator interview – Duncan Station  
Copies to: file

Comments: I interviewed Mr. Manuel Aspuria, Jefferson Parish Public Works East Bank Superintendent about the property associated with the Duncan Pump Station while at the station. He stated that the current pump station facility was built in late 1983 or 1984. He said that 15 years ago this was mostly undeveloped except for the old Jefferson Downs racetrack. He said now the land in and around the station is being or has been developed as residential property. 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 also mentioned that there are no monitor wells on-site, and that 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. Mr. Aspuria mentioned that solvent (varsol), antifreeze and lubricating oil are stored in 55 gallon drums within the pump station. Generally each station stores about 1,000 gallons of assorted motor oils within the station. Mr. Aspuria then stated that all pump stations have a spill prevention plan (binder with operator) and spill cleaning supplies and booms. He stated that in either 2004 or 2005 there was a diesel truck spill near the fence on the northeast side of the property, the spill was reported and cleaned up, and no further action was required by the station. Mr. Aspuria stated that did not know of any environmental contamination/issues or violations, liens or lawsuits on the property, and expressed that he had no environmental concerns with the subject area. He also stated that there was no PCB in the transformers, and that there was no lead-based paint or asbestos concerns at the station.

Decisions/ Agreements Reached:

Action Items: Information added to the Phase I report.

