



DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
Panama City Regulatory Field Office
1002 West 23rd Street, Suite 350
Panama City, Florida 32405-3648

REPLY TO
ATTENTION OF

North Permits Branch
SAJ-2006-4624 (IP-DEB)

May 2, 2007

Florida Department of Transportation
c/o Ms. Joy Giddens
District III
P.O. Box 607
Chipley, Florida 32428

Dear Ms. Giddens:

The U.S. Army Corps of Engineers (Corps) is pleased to enclose the Department of the Army permit, which should be available at the construction site. Work may begin immediately but the Corps must be notified of:

- a. The date of commencement of the work,
- b. The dates of work suspensions and resumptions of work, if suspended over a week, and
- c. The date of final completion.

This information should be mailed to the Enforcement Section of the Regulatory Division of the Jacksonville District at Post Office Box 4970, Jacksonville, Florida 32232-0019. The Enforcement Section is also responsible for inspections to determine whether Permittees have strictly adhered to permit conditions.

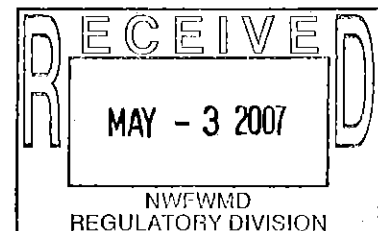
IT IS NOT LAWFUL TO DEVIATE FROM
THE APPROVED PLANS ENCLOSED.

Sincerely,

David S. Hobbie
Chief, Regulatory Division

Enclosures

Copies Furnished:
HDR, Inc., Pensacola
FDEP, Pensacola
CESAJ-RD-PE, Jacksonville
NFWWMD, Havana



PLEASE COMPLETE THE FOLLOWING QUESTIONS BY GIVING US ANY COMMENTS OR SUGGESTIONS FOR HOW WE CAN IMPROVE.

Please indicate the nature of your business (if applicable, check more than one):

- | | | |
|------------------------------------------------------|-------------------------------------------------------|------------------------------------------|
| <input type="checkbox"/> Property developer | <input type="checkbox"/> Flood/Water Control District | <input type="checkbox"/> Sand & Gravel |
| <input type="checkbox"/> Public Agency Applicant | <input type="checkbox"/> Consultant | <input type="checkbox"/> Law Office |
| <input type="checkbox"/> Civic or Trade Organization | <input type="checkbox"/> Farming/Ranching | <input type="checkbox"/> Silviculture |
| <input type="checkbox"/> Member of Legislature | <input type="checkbox"/> Public Agency | <input type="checkbox"/> Mining |
| <input type="checkbox"/> Federal/State/Local | <input type="checkbox"/> Personal/Private Project | <input type="checkbox"/> Media |
| <input type="checkbox"/> Conservation Organization | <input type="checkbox"/> Adjacent Property Owner | <input type="checkbox"/> Native American |
| <input type="checkbox"/> Other (describe): _____ | | |

What Service(s) Did You Seek From the Corps? (if applicable, check more than one):

- | | |
|------------------------------------------------------------------|------------------------------------------------------------------------|
| <input type="checkbox"/> General Information | <input type="checkbox"/> Jurisdictional/wetland determination |
| <input type="checkbox"/> Pre-application Consultation | <input type="checkbox"/> Resolution of violation/non-compliance |
| <input type="checkbox"/> Nationwide general permit | <input type="checkbox"/> Regulatory Program presentation |
| <input type="checkbox"/> Regional or programmatic general permit | <input type="checkbox"/> Commented on Public Notice/permit application |
| <input type="checkbox"/> Standard Individual permit | <input type="checkbox"/> Other (describe): _____ |
| <input type="checkbox"/> Letter of Permission | |

Which Corps office (District, Division, Headquarters, other) did you deal with? _____

Name of person you contacted in our office (optional): _____

Do you have any comments or suggestions on the Regulatory Program?

Information about you (optional):

Name/Title: _____

Address: _____

Telephone (include area code): _____

May we contact you? YES NO

Authorities: The government Performance and Results Act of 1993 and Executive Order (EO) 12862, "Setting Customer Service Standards", dated September 11, 1993. Purpose: To determine the quality of services our customers expect, as well as their satisfaction with USACE's existing services. Information provided on this form will be used in evaluating the performance of the Corps Regulatory Program. Routine Uses: This information may be shared with the Office of Management and Budget, members of Congress, and other federal, state, and local government agencies. Disclosure: Providing requested information is voluntary. Failure to provide this information will not result in an adverse action.

This notice of authorization must be conspicuously displayed at the site of work

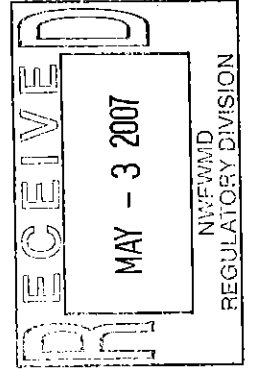
United States Army Corps of Engineers EXPIRES: (May 2, 2012)

A permit to place fill in approximately 40.74 acres of waters of the United States associated with road improvements along 9.75 miles of SR79, from Steelfield Road to SR20, in Sections 5, 8, 17, 20, 29, 32, and 33, Township 1 south, Range 16 west, and Sections 4, and 9, Township 2 south, and Range 16 west, Bay and Washington Counties, Florida,

has been issued to: Florida Department of Transportation
District III
P.O. Box 607
Chipley, Florida 32428

on May 2, 2007

SAJ-2006-4624 (IP-DEB)



**Paul L. Grosskruger
Colonel, U.S. Army
District Engineer**

DEPARTMENT OF THE ARMY PERMIT

Permittee: FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT III
P.O. BOX 607
CHIPLEY, FLORIDA 32428

Permit No. SAJ-2006-4624 (IP-DEB)

Issuing Office: U.S. Army Engineer District, Jacksonville

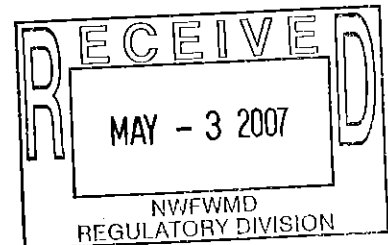
NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: To impact approximately 40.74 acres of freshwater wetlands associated with making improvements along approximately 8.0 miles of SR79, beginning south from Steelfield Road and ending north at SR20, in Bay and Washington Counties. Proposed improvements include widening from two to four lanes, and shoulder work. Mitigation for project impacts will be provided in accordance with the Northwest Florida Umbrella, Watershed-Based, Regional Mitigation Plan (RMP), as defined in the Agreement between the Northwest Florida Water Management District (NFWFMD) and the U.S. Army Corps of Engineers (Corps), Jacksonville District, July 31, 2006. The project is as shown and described on attached plans numbered SAJ-2006-4624 (IP-DEB) in 41 sheets.

Project Location: The project is located in waters of the United States, Choctawhatchee and St. Andrew Bay watersheds, along SR79, from Steelfield Road and north to SR20, in Sections 5, 8, 17, 20, 29, 32, and 33, Township 1 south, Range 16 west, and Sections 4, and 9, Township 2 south, and Range 16 west, Bay and Washington Counties, Florida.

Geographic Position: Latitude 30° 24.34' North
Longitude 85° 52.17' West



Permit Conditions:

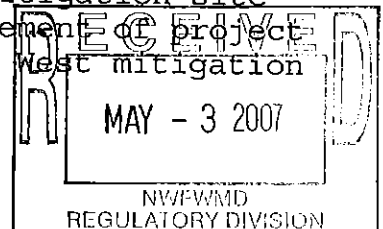
General Conditions:

1. The time limit for completing the work authorized ends on May 2, 2012. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit, you must obtain the signature and mailing address of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.
6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

The attached Special Conditions are applicable only to the above referenced Permit Number:

1. Fill material used for this project shall be limited to suitable, clean fill material, which excludes items such as trash, debris, car bodies, asphalt, construction materials, concrete block with exposed reinforcement bars, and soils contaminated with any toxic substance, in toxic amounts (see Section 307 of the Clean Water Act).
2. Reduction and/or elimination of turbid water conditions and the erosion of disturbed or filled areas in adjacent waterbodies and wetlands are to be achieved through the use of silt curtains or screens, between the construction area and wetlands or surface waters, during periods of fill placement. Such devices shall be properly maintained until such time as those disturbed areas become sufficiently stabilized by natural recruitment of vegetation or other measures.
3. The permittee shall at all times during the construction and until stabilization is achieved, control erosion and sedimentation into adjacent waters and wetlands. This will be accomplished by the placement of containment curtains, sodding, staked hay bales, filter fence, or a suitable temporary erosion control barrier, and will be located within the footprint of the area authorized to be filled.
4. Mitigation for direct impacts to 40.74 acres, and secondary impacts to 208.0 acres of freshwater wetlands and other waters of the United States will be carried out in accordance with the RMP, as defined in the Agreement between the NFWFMD and the Corps, Jacksonville District, July 31, 2006. The RMP includes land acquisition, preservation, and restoration activities within the 620-acre Ward Creek West mitigation site, per Section 5.4.2, to address direct impacts to 15.24 acres of waters of the United States within the St. Andrew Bay watershed, and withdrawal of sufficient credits from the Sand SHLMB, per Section 5.3.1, to address direct impacts to 25.5 acres of freshwater wetlands within the Choctawhatchee Bay watershed.
5. Acquisition of the 620-acre Ward Creek West mitigation site must be accomplished within one year from commencement of project construction. Upon acquisition of the Ward Creek West mitigation



site, the NFWFMD shall provide a restoration/enhancement plan including success criteria to the Corps for recommendation and approval. If the Ward Creek West site can not be acquired within one year from commencement of construction, then the NFWFMD will submit an alternate compensatory mitigation proposal to fully offset the functional loss that occurred as a result of the project. The alternate mitigation proposal must include compensation for the temporal loss of wetland function associated with the delay of mitigation activities. Refer to the January 2007 RMP Revision, Section 11.10, for additional mitigation contingency planning information.

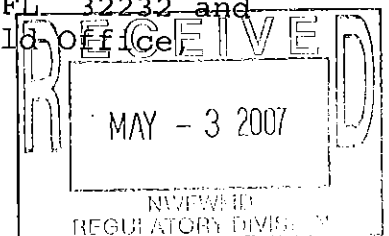
6. Within 60 days from the date of acquisition of 620-acre Ward Creek West mitigation site, the permittee agrees to begin mitigation activities, to include restoration of approximately 60.0 acres of hydric flatwoods, in accordance with the RMP. The mitigation will provide compensation for approximately 10.67 units of functional loss resulting from direct impacts to 15.24 acres of wetlands within the St. Andrew Bay watershed.

7. Within 60 days from the date of permit issuance, the permittee agrees to purchase approximately 18.35 hydric flatwood, and forested freshwater wetland-credits from the SHLMB as compensation for direct impacts to 25.5 acres of water of the United States hydric flatwood, and forested freshwater wetlands in the Choctawhatchee Bay watershed. Approximately 87.77%, or 16.1 of the total credits purchased shall be hydric flatwoods, and 12.23%, or 2.24 of the total credits purchased shall be forested wetlands.

8. Within one year from the date of project construction, the applicant shall provide compensation for secondary impacts to approximately 208.0 acres of freshwater wetlands and waters of the United States within the Choctawhatchee Bay and River, and St. Andrew Bay watersheds. Additional mitigation to offset secondary wetland impacts shall provide an additional 22.38 credits and be carried out in accordance with the RMP.

9. Upon completion of the project-specific mitigation activities, the permittee shall debit the Mitigation Credit Ledger (refer to Section 8.1 of the RMP) accordingly, to reflect use of the credits associated with the mitigation activities outlined in the RMP and the conditions of this permit.

10. Mitigation credits for activities authorized by this permit, as referenced in the RMP, shall be restricted to the work authorized by this permit, not to be duplicated, or otherwise transferred to other Corps permits.
11. The NFWFMD shall provide an annual status/monitoring report in July 2008, as defined in the January 2007 RMP Revision, Section 11.0. The report shall include all six reporting criteria listed in the RMP including mitigation bank credit ledgers.
12. The NFWFMD shall provide annual provisions for full cost accounting as defined in Article IV, (14) of the Memorandum of Agreement between NFWFMD and the Corps executed July 31, 2006.
13. In the event that the tapered pigtoe (*Quincuncina burkei*) and fuzzy pigtoe (*Pleurobema strodeanum*) mussels become federally listed as either threatened or endangered prior to completion of work, then work shall cease in areas (i.e., Pine Log Creek) where the species may occur. The permittee shall submit findings of a survey, performed in accordance with the attached 'Freshwater Mussel Survey Protocol for the Southeastern Atlantic Slope and Northeastern Gulf Drainages in Florida and Georgia' are provided to the Corps and the USFWS, Ecological Services Office, Panama City. These findings may be used to initiate consultation procedures, pursuant to Section 7, Endangered Species Act, 1973. Work shall not commence until either consultation, or coordination with the USFWS on any recommended project design or protocol changes, which may prevent or mitigate the effects of the project on these species, is concluded. If necessary, the permit will be modified to reflect any approved revisions, accordingly.
14. A representative of the Corps will be allowed to inspect the authorized project site, including mitigation areas, at any time deemed necessary to ensure that the project is being, or has been, accomplished in accordance with the terms and conditions of this permit.
15. All reports, documentation and correspondence required by the conditions of this permit shall be submitted to the following address: U.S. Army Corps of Engineers, Regulatory Division, Enforcement Section, P.O. Box 4970, Jacksonville, FL 32232 and U.S. Army Corps of Engineers, Cocoa Regulatory Field Office.



Permittee: Florida Department of Transportation
Permit Number: SAJ-2006-4624(IP-DEB)
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Attn: Andrew Phillips, 400 High Point Drive, Suite 600, Cocoa, Florida 32926.

16. Within 10 days from the date of initiating the authorized work, the Permittee shall provide to the Corps a written notification of the date of commencement of work authorized by this permit.

17. Within 60 days of completion of the authorized work or at the expiration of the construction window of this permit, whichever occurs first, the Permittee shall complete the attached "Self-Certification Statement of Compliance" form and submit to the Corps. In the event that the completed work deviates, in any manner, from the authorized work, the Permittee shall describe, on the Self-Certification Form, the deviations between the work authorized by the permit and the work as constructed. Please note that the description of any deviations on the Self-Certification Form does not constitute approval of any deviations by the Corps.

18. Within 60 days of completion of the authorized work or at the expiration of the construction window of this permit, whichever occurs first, the Permittee shall submit as-built drawings of the authorized work and a completed As-Built Certification Form to the Corps. The drawings shall be signed and sealed by a registered professional engineer and include the following:

a. A plan view drawing of the location of the authorized work footprint (as shown on the permit drawings) with an overlay of the work as constructed in the same scale (on 8½" by 11" paper) as the attached permit drawings. The drawing should show all "earth disturbance," including wetland impacts, water management structures, and any on-site mitigation areas.

b. List any deviations between the work authorized by this permit and the work as constructed. In the event that the completed work deviates, in any manner, from the authorized work, describe on the As-Built Certification Form the deviations between the work authorized by this permit and the work as constructed. Clearly indicate on the as-built drawings any deviations that have been listed. Please note that the depiction and/or description of any deviations on the drawings and/or As-Built Certification Form does not constitute approval of any deviations by the U.S. Army Corps of Engineers.

c. The Department of the Army Permit number.

d. Include pre- and post-construction aerial photographs of the project site, if available.

19. If the approved permit drawings conflict with the permit special conditions, then the special conditions shall prevail.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

() Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

(X) Section 404 of the Clean Water Act (33 U.S.C. 1344).

() Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal projects.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

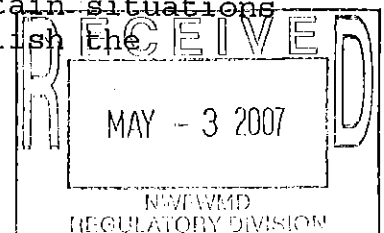
5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (see 4 above).

c. Significant new information surfaces, which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the



Permittee: Florida Department of Transportation
Permit Number: SAJ-2006-4624 (IP-DEB)
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corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

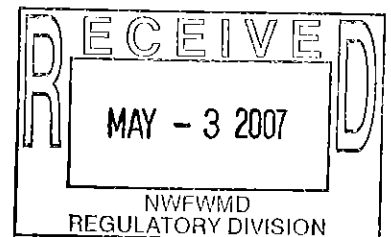
Permittee: Florida Department of Transportation
Permit Number: SAJ-2006-4624 (IP-DEB)
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Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

Joy Giddens 5/1/07
(APPLICANT NAME and TITLE) FDOT (DATE)
Joy Giddens District Permits Coordinator

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

Paul L. Grosskruger 5/2/07
(DISTRICT COMMANDER) (DATE)
Paul L. Grosskruger
Colonel, U.S. Army



Permittee: Florida Department of Transportation
Permit Number: SAJ-2006-4624 (IP-DEB)
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When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

(TRANSFEREE-SIGNATURE)

(DATE)

(NAME-PRINTED)

(ADDRESS)

(CITY, STATE, AND ZIP CODE)

Permittee: Florida Department of Transportation
Permit Number: SAJ-2006-4624 (IP-DEB)
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DEPARTMENT OF THE ARMY PERMIT

Attachments to Department of the Army
Permit Number SAJ-2006-4624 (IP-DEB)

1. PERMIT DRAWINGS: Included as Attachments #1 - 15, dated April 13, 2007.
2. MITIGATION, MAINTENANCE AND MONITORING PROCEDURES: Excerpts from the Northwest Florida Umbrella, Watershed-Based, Regional Mitigation Plan (PLAN), as defined in the agreement between the Northwest Florida Water Management District (NFWFMD) and the US Army Corps of Engineers (Corps), Jacksonville District, July 31, 2006, are incorporated into, and made part of, this permit, as Attachments #16 - 23.
3. WATER QUALITY CERTIFICATION: In accordance with General Condition number 5 on page 2 of this DA permit, the Florida Department of Environmental Protection Water Quality Certificate #03-0268000-001 (dated March 16, 2007) specific conditions are enclosed as Attachments #24 - 26.
4. FRESHWATER MUSSEL SURVEY PROTOCOL: The mussel survey protocol is enclosed as Attachments #27 - 41.

SELF-CERTIFICATION STATEMENT OF COMPLIANCE

Permit Number: SAJ-2006-4624 (IP-DEB)

Permittee's Name & Address (please print or type): _____

Telephone Number: _____

Location of the Work: _____

Date Work Started: _____ Date Work Completed: _____

Description of the Work (e.g. bank stabilization, residential or commercial filling, docks, dredging, etc.): _____

Acreage or Square Feet of Impacts to Waters of the United States: _____

Describe Mitigation completed (if applicable): _____

Describe any Deviations from Permit (attach drawing(s) depicting the deviations): _____

I certify that all work, and mitigation (if applicable) was done in accordance with the limitations and conditions as described in the permit. Any deviations as described above are depicted on the attached drawing(s).

Signature of Permittee

Date

Permittee: Florida Department of Transportation
Permit Number: SAJ-2006-4624(IP-DEB)
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AS-BUILT CERTIFICATION BY PROFESSIONAL ENGINEER

Submit this form and one set of as-built engineered drawings to the U.S. Army Corps of Engineers, Enforcement Branch, Post Office Box 4970, Jacksonville, Florida 32232-0019. If you have questions regarding this requirement, please contact the Enforcement Branch at 904-232-2070.

1. Department of the Army Permit Number: SAJ-2006-4624(IP-DEB)

2. Permittee Information:

Name: _____

Address: _____

3. Project Site Identification:

Physical location/address: _____

4. As-Built Certification:

I hereby certify that the authorized work has been accomplished in accordance with the Department of the Army permit with any deviations noted below. This determination is based upon on-site observation, scheduled and conducted by me or by a project representative under my direct supervision. I have enclosed one set of as-built engineering drawings.

Signature of Engineer

Name (Please type)

Florida Reg. Number

Company Name

Address

City State ZIP

(Affix Seal)

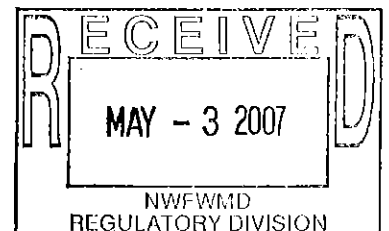
Date

Telephone Number

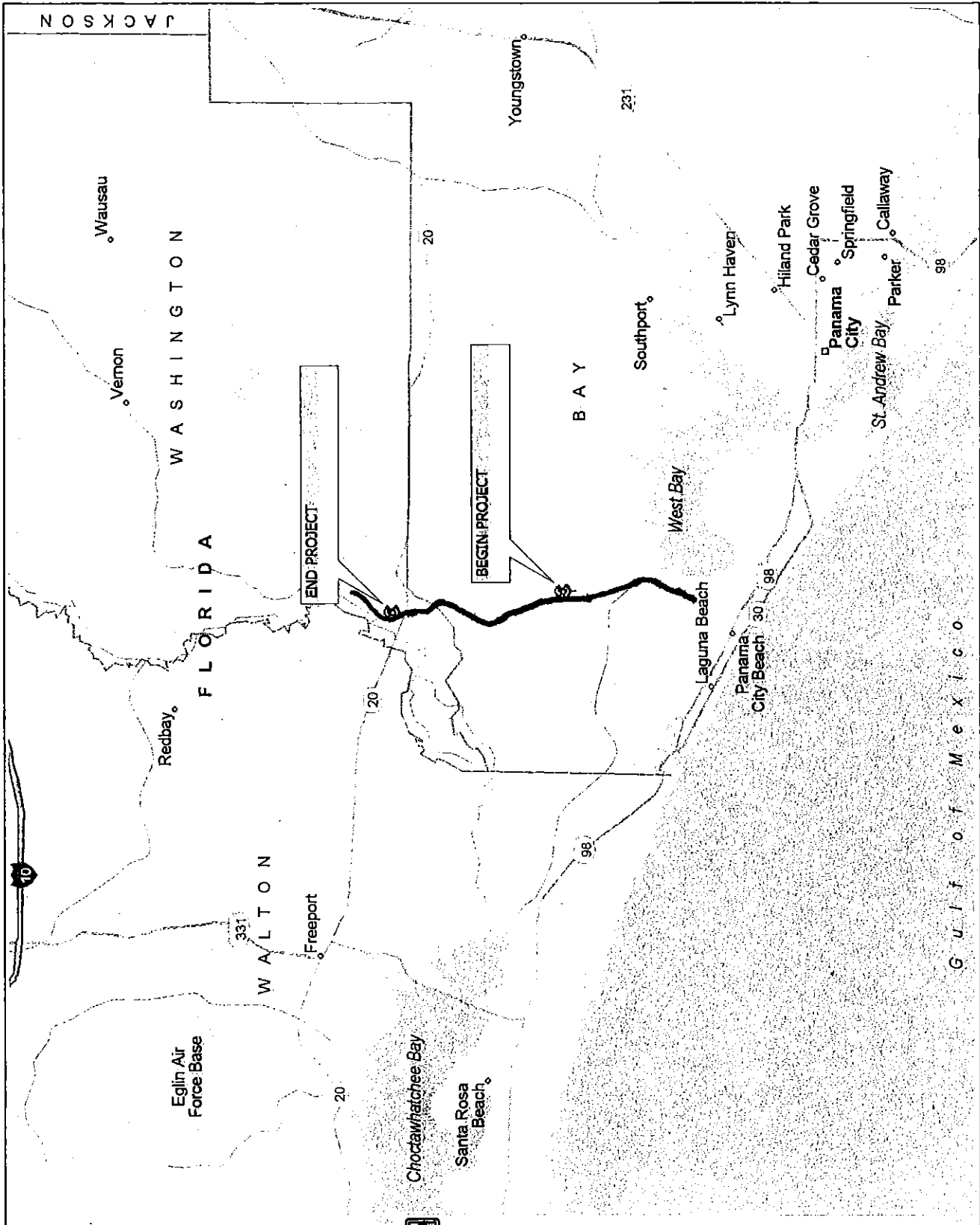
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Deviations from the approved plans and specifications (attach additional pages if necessary):



Ebro area, Florida, United States



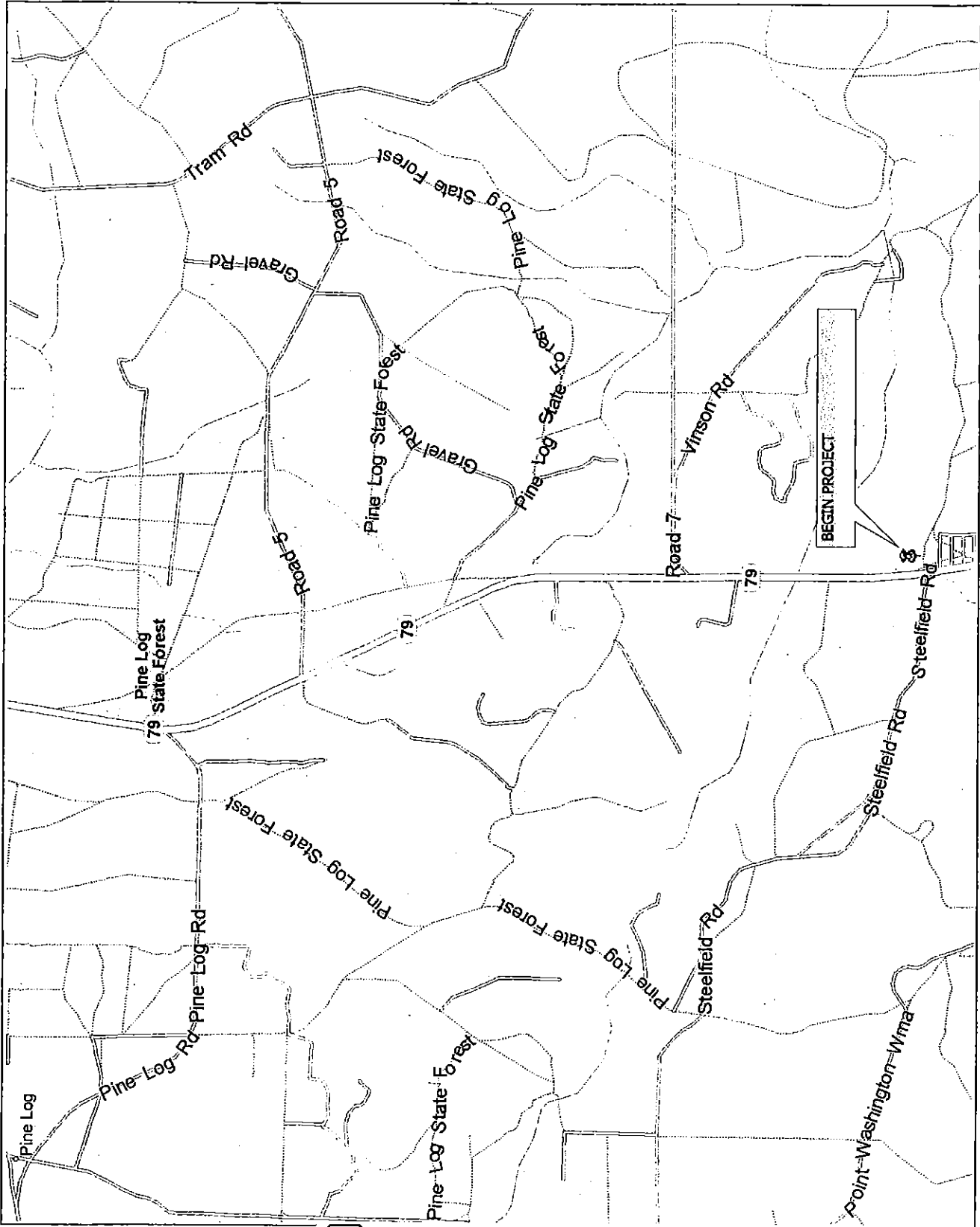
US Army Corps of Engineers

SAJ-2006-4624 (IP-DEB)

FDOT/ SR79, Steelfield Road to SR20

Sheet # 1 of 41 April 17, 2007

Panama City area, Florida, United States



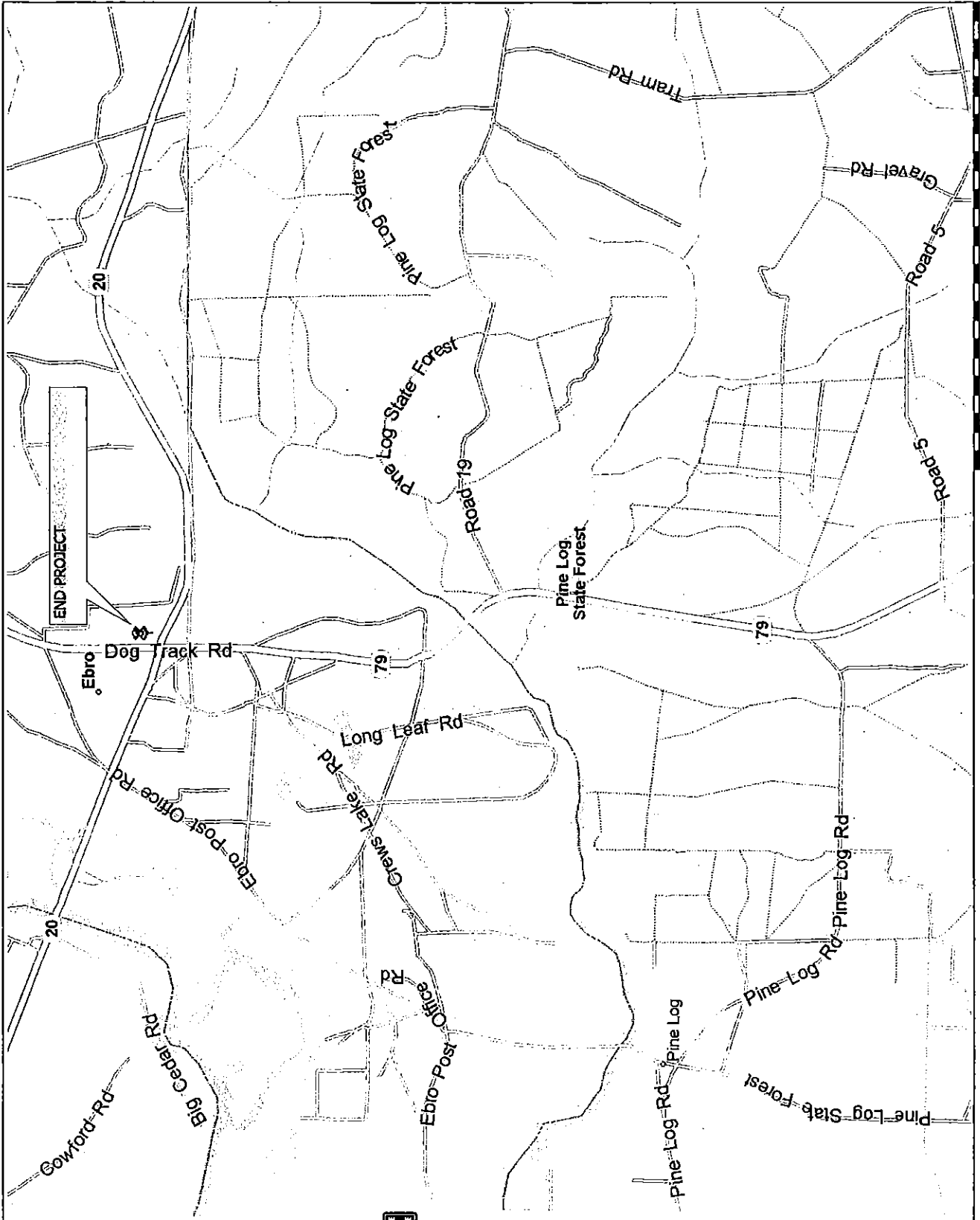
US Army Corps
of Engineers

SAJ-2006-4624 (IP-DEB)

FDOT/ SR79, Steelfield Road to SR20

Sheet # 2 of 41 April 17, 2007

Pine Log, Florida, United States



US Army Corps
of Engineers

SAJ-2006-4624 (IP-DEB)

FDOT/ SR79, Steelfield Road to SR20

Sheet # 3 of 41 April 17, 2007

| WETLAND NO. | AREA IMPACTED (SF) | AREA IMPACTED (AC) |
|-------------|--------------------|--------------------|
| #42 | 18,513 | 0.43 |
| #44 | 2,557 | 0.06 |
| TOTAL | 21,070 | 0.49 |

NOTE: WETLAND IMPACTS INCLUDE 5' BUFFER BEYOND THE TIE POINT TO NATURAL GROUND WHERE R/W PERMITS

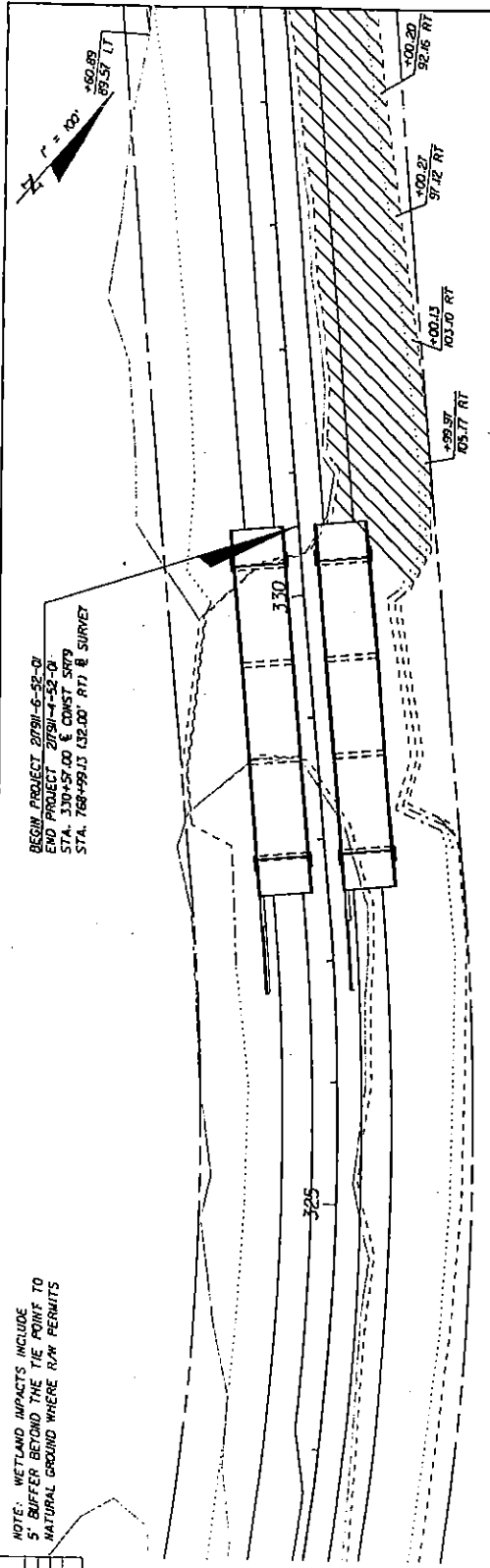
BEGIN PROJECT 217911-6-52-01
 END PROJECT 217911-4-52-01
 STA. 330+57.00 & CONST. SPT'S
 STA. 768+99.13 (32.00' RT) @ SURVEY



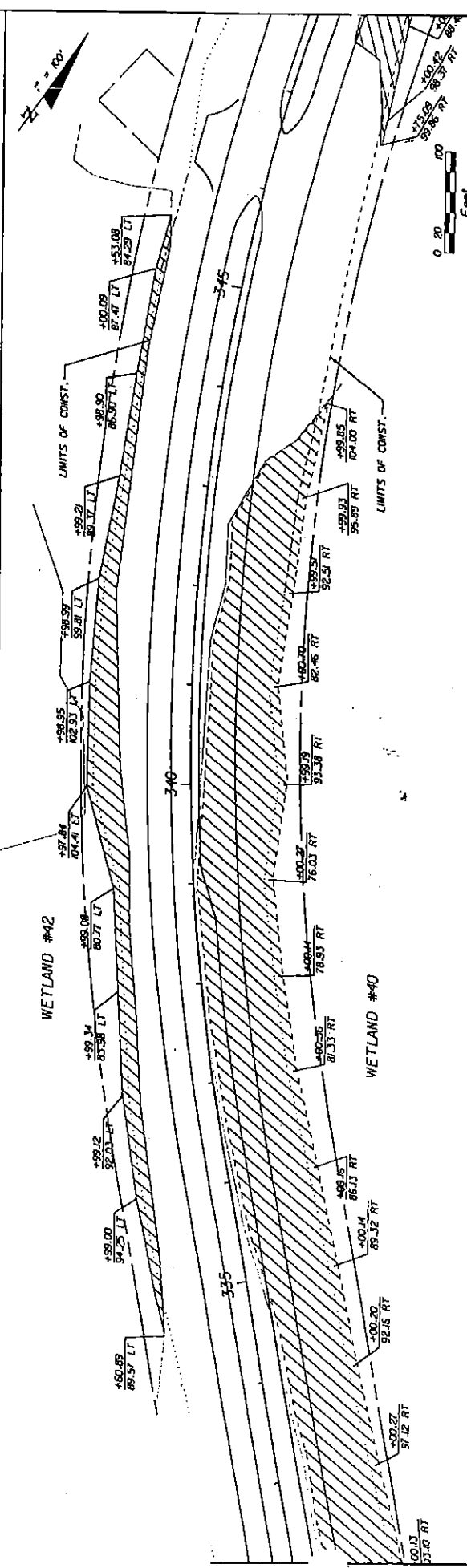
US Army Corps of Engineers

SAJ-2006-4624 (IP-DEB)
 FDOT/ SR79, Steelfield Road to SR20

Sheet # 41 of 41 April 17 2007

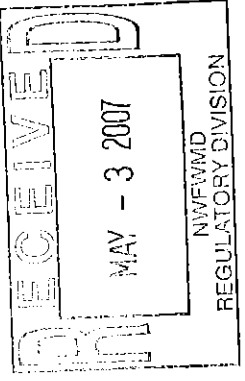


NOTE: WETLAND #40 IMPACTS INCLUDED IN FFD 217911-4-52-01



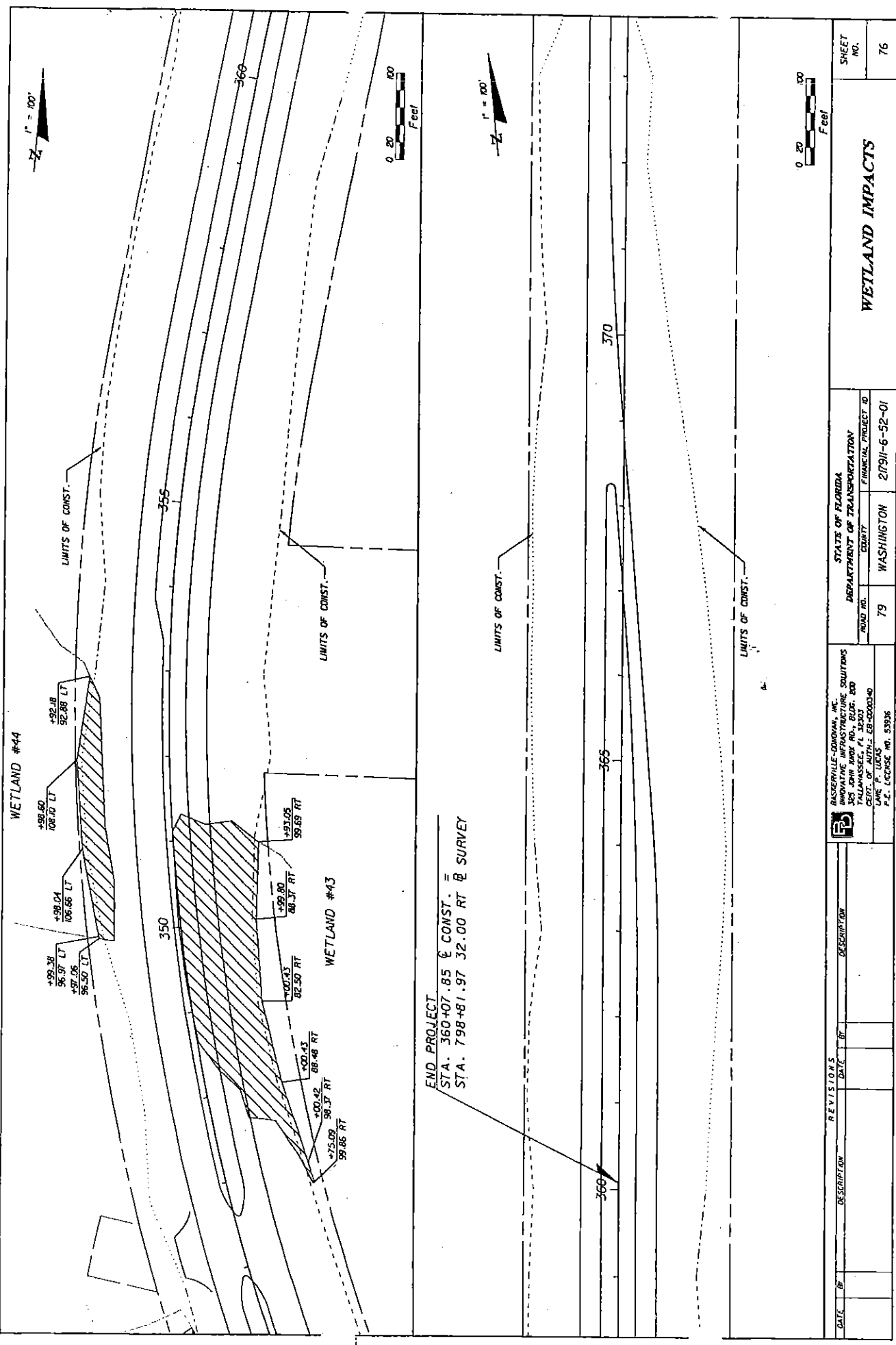
| REVISIONS | | DESCRIPTION | | DATE | BY |
|-----------|--|-------------|--|------|----|
| | | | | | |

| | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| BASEVILLE-OROVIA, INC. INNOVATIVE INFRASTRUCTURE SOLUTIONS 205 JOHN RHOE RD., BLDG. 200 PALM BEACH, FL 33403 GARY T. LUCAS P.E. LICENSE NO. 33915 | | STATES OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD NO. 79 COUNTY WASHINGTON FINANCIAL PROJECT ID 217911-6-52-01 | SHEET NO. 75 WETLAND IMPACTS |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------|---------------------------------|



Signature
 5/2/06

Not For Construction



| REVISIONS | | STATES OF FLORIDA | | DEPARTMENT OF TRANSPORTATION | | FINANCIAL PROJECT ID | | SHEET NO. | |
|-----------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------------------------|------------|----------------------|----------------------|-----------|--|
| DATE | DESCRIPTION | ROAD NO. | COUNTY | ROAD NO. | COUNTY | FINANCIAL PROJECT ID | FINANCIAL PROJECT ID | 76 | |
| | | 79 | WASHINGTON | 79 | WASHINGTON | 217911-6-52-01 | 217911-6-52-01 | | |
| | | BASEVILLE-CORONA, INC. INNOVATIVE INFRASTRUCTURE SOLUTIONS 351 JOHN KERRY RD., SUITE 200 PALM HARBOR, FL 34633 CERT. OF REG. NO. 15-0000040 P.E. LICENSE NO. 53936 | | | | | | | |

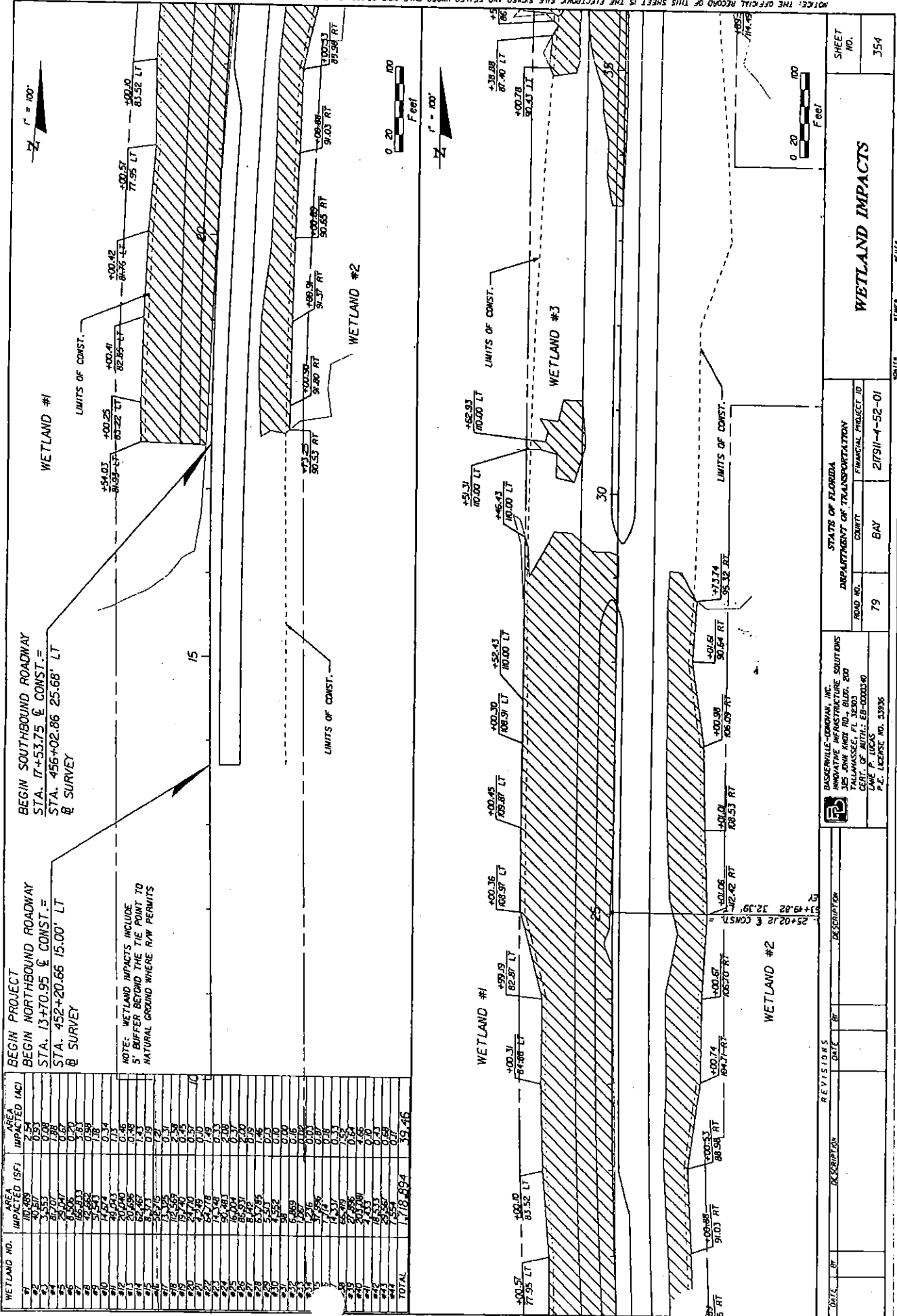
Signature
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For Construction!

SAJ-2006-4624 (IP-DEB)
 FDOT/ SR79, Steelfield Road to SR20

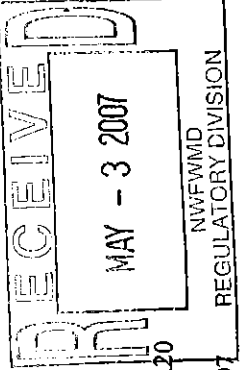
Sheet # 5 of 11 April 17, 2007

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| WETLAND NO. | AREA IMPACTED (SF) | AREA IMPACTED (AC) |
|-------------|--------------------|--------------------|
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| 02 | 2,817 | 0.65 |
| 03 | 1,088 | 0.25 |
| 04 | 2,327 | 0.53 |
| 05 | 20,047 | 4.58 |
| 06 | 6,220 | 1.41 |
| 07 | 16,233 | 3.67 |
| 08 | 1,782 | 0.40 |
| 09 | 14,674 | 3.34 |
| 10 | 29,013 | 6.66 |
| 11 | 20,240 | 4.61 |
| 12 | 1,243 | 0.28 |
| 13 | 8,571 | 1.93 |
| 14 | 2,175 | 0.49 |
| 15 | 1,726 | 0.39 |
| 16 | 1,726 | 0.39 |
| 17 | 1,726 | 0.39 |
| 18 | 1,726 | 0.39 |
| 19 | 1,726 | 0.39 |
| 20 | 1,726 | 0.39 |
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| 22 | 1,726 | 0.39 |
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| 57 | 1,726 | 0.39 |
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| 59 | 1,726 | 0.39 |
| 60 | 1,726 | 0.39 |
| TOTAL | 147,894 | 34.46 |

| | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------|-----------------------------------------------------------------------------------------------------------------------|---------------|--|
| DATE | | REVISIONS | | DESCRIPTION | |
| | | | | | |
| BASERVILLE-CORNWALL, INC. SOLUTIONS 305 ANN HWY RD., BLDG. 200 TALLAHASSEE, FL 32303 CERT. OF AUTH. EB-0000390 LAW. P. LICENS. NO. 33936 | | | STATES OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD NO. 79 COUNTY BAY FINANCIAL PROJECT ID 2/FSII-4-52-01 | | |
| WETLAND IMPACTS | | | | SHEET NO. 354 | |



Handwritten signature and date: 5/26/06

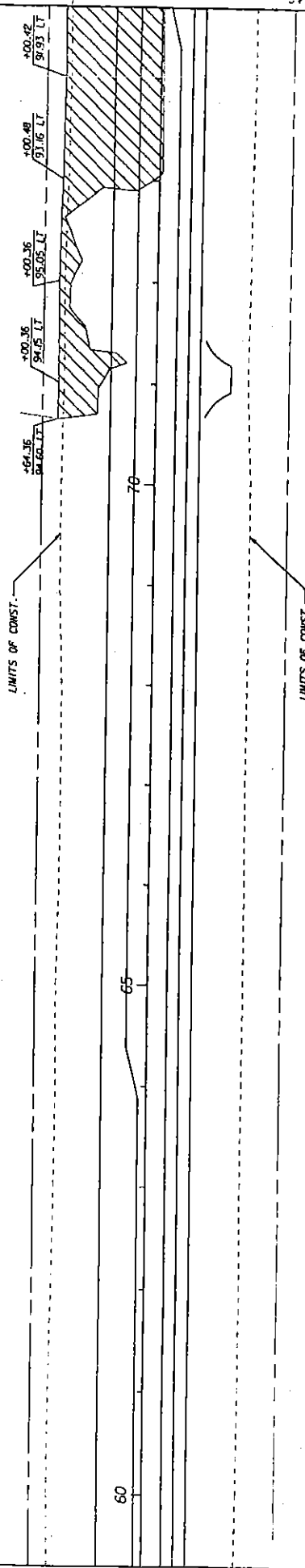
For Construction

SAJ-2006-4624 (IP-DEB)
 FDOT/SR79, Steelfield Road to SR20
 Sheet # 6 of 51 April 17, 2007

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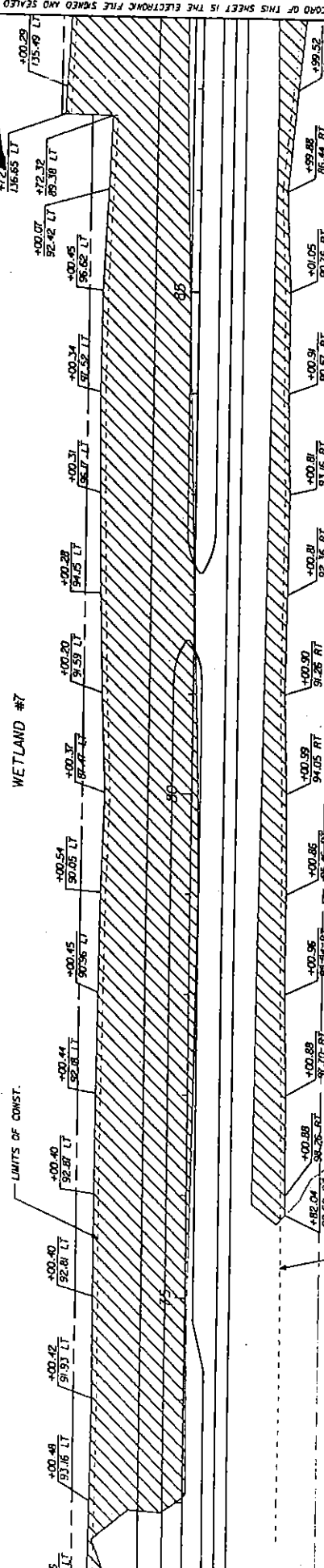
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WETLAND #7

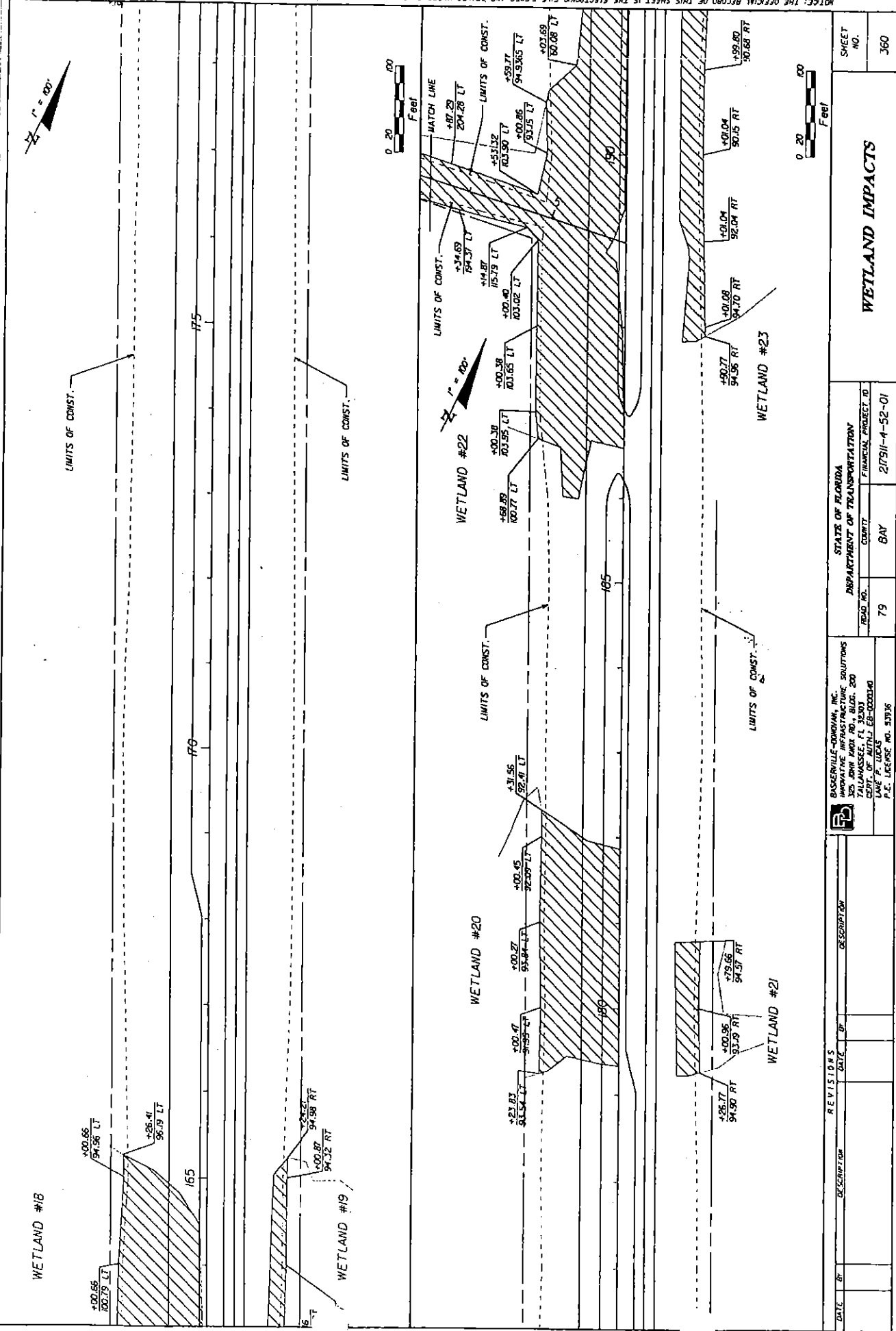


1" = 100'

WETLAND #7



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| DATE | BY | DESCRIPTION | REVISION | DATE | BY | DESCRIPTION |
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| | | | |
|-------------------|--------|------------------------------|--|
| STATES OF FLORIDA | | DEPARTMENT OF TRANSPORTATION | |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID | |
| 79 | BAY | 279311-4-52-01 | |

| | | | |
|-------------------------------------|--|------------------------------|--|
| BASKERVILLE-JORDAN, INC. | | STATE OF FLORIDA | |
| INNOVATIVE INFRASTRUCTURE SOLUTIONS | | DEPARTMENT OF TRANSPORTATION | |
| 1000 N. UNIVERSITY BLVD. SUITE 200 | | COUNTY | |
| TALLAHASSEE, FL 32310 | | BAY | |
| CENT. OF AUTH. L.E. 00001340 | | FINANCIAL PROJECT ID | |
| LANE P. LUCAS | | 279311-4-52-01 | |
| P.E. LICENSE NO. 53936 | | | |

| | | |
|-----------------|--|-----------|
| WETLAND IMPACTS | | SHEET NO. |
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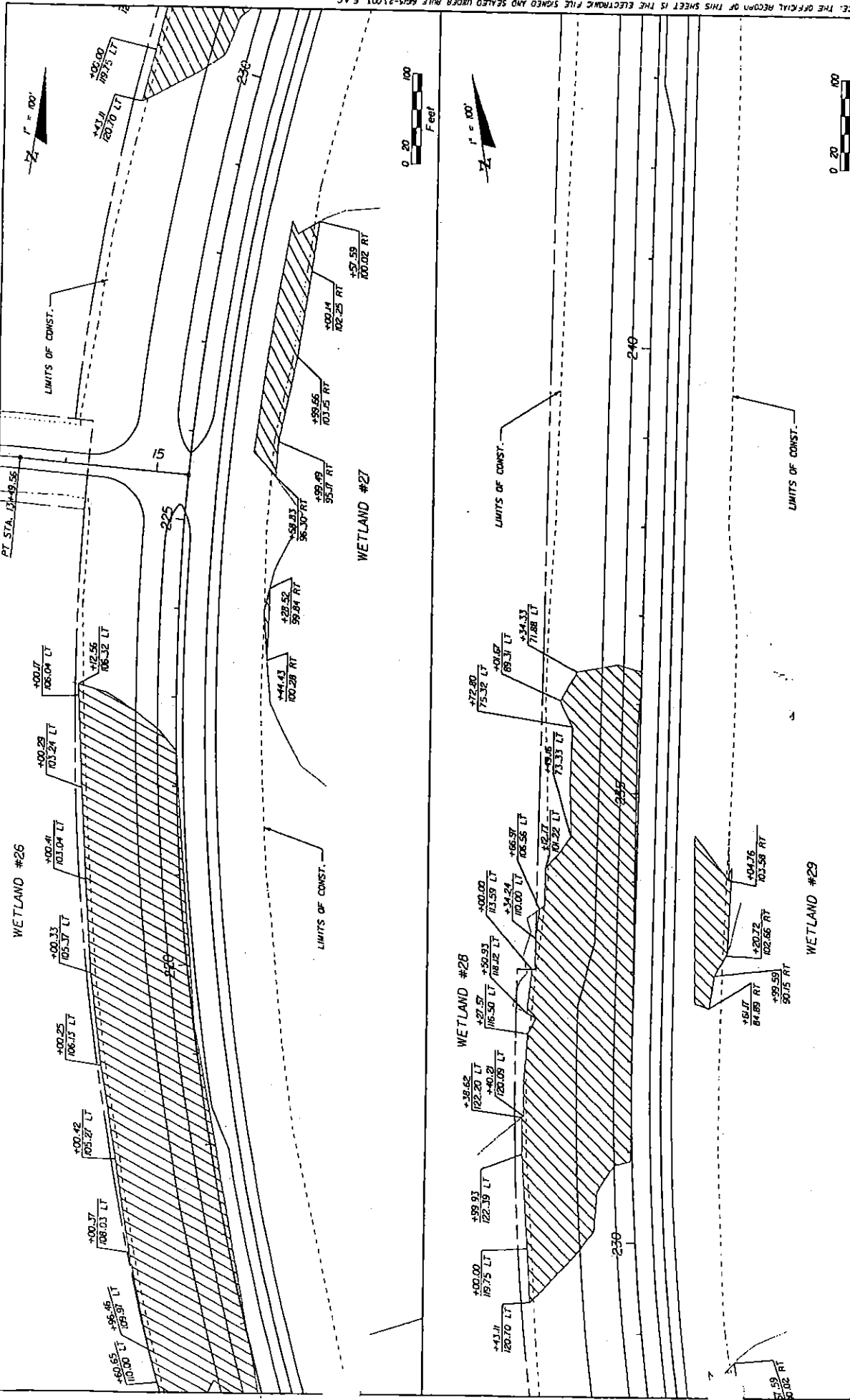
Not For Construction

Handwritten signature and date:
 5/26/06



SAJ-2006-4624 (IP-DEB)
 FDOT/ SR79, Steelfield Road to SR20

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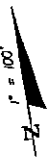


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| DATE | | BY | DESCRIPTION | REVISIONS | DATE | BY | DESCRIPTION |
| STATES OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD NO. 79 COUNTY BAY FINANCIAL PROJECT ID 217911-4-52-01 | | | | | | | |
| BASERVILLE-OWENIA, INC. INNOVATIVE INFRASTRUCTURE SOLUTIONS 325 JOHN RYAN RD., BLDG. 200 PALM BEACH, FL 33403 PHONE: (561) 835-0000 FAX: (561) 835-0000 P.E. LICENSE NO. 53935 | | | | | | | |
| SHEET NO. | | | | 362 | | | |
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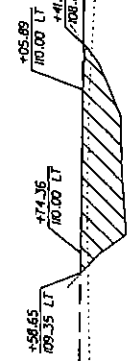
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 MAY - 3 2007
 NWFWM
 REGULATORY DIVISION

Not For Construction

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WETLAND #30



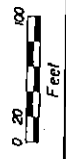
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255

250

245

LIMITS OF CONST.



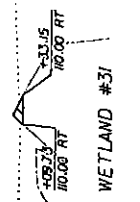
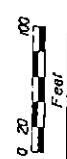
LIMITS OF CONST.

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LIMITS OF CONST.



WETLAND #31

| DATE | BY | DESCRIPTION |
|------|----|-------------|
| | | |
| | | |

GREGORY J. BROWN, P.E.
 INNOVATIVE IMPACTS, INC. SOLUTIONS
 322 JOHN KNOX RD., BLDG. 200
 TALLAHASSEE, FL 32303
 CERT. OF AUTH.: EP-0000140
 P.E. LICENSE NO. 53936

STATE OF FLORIDA
 DEPARTMENT OF TRANSPORTATION
 ROAD NO. 79
 COUNTY BAY
 FINANCIAL PROJECT ID 217911-4-52-01

SHEET NO. 363
 WETLAND IMPACTS

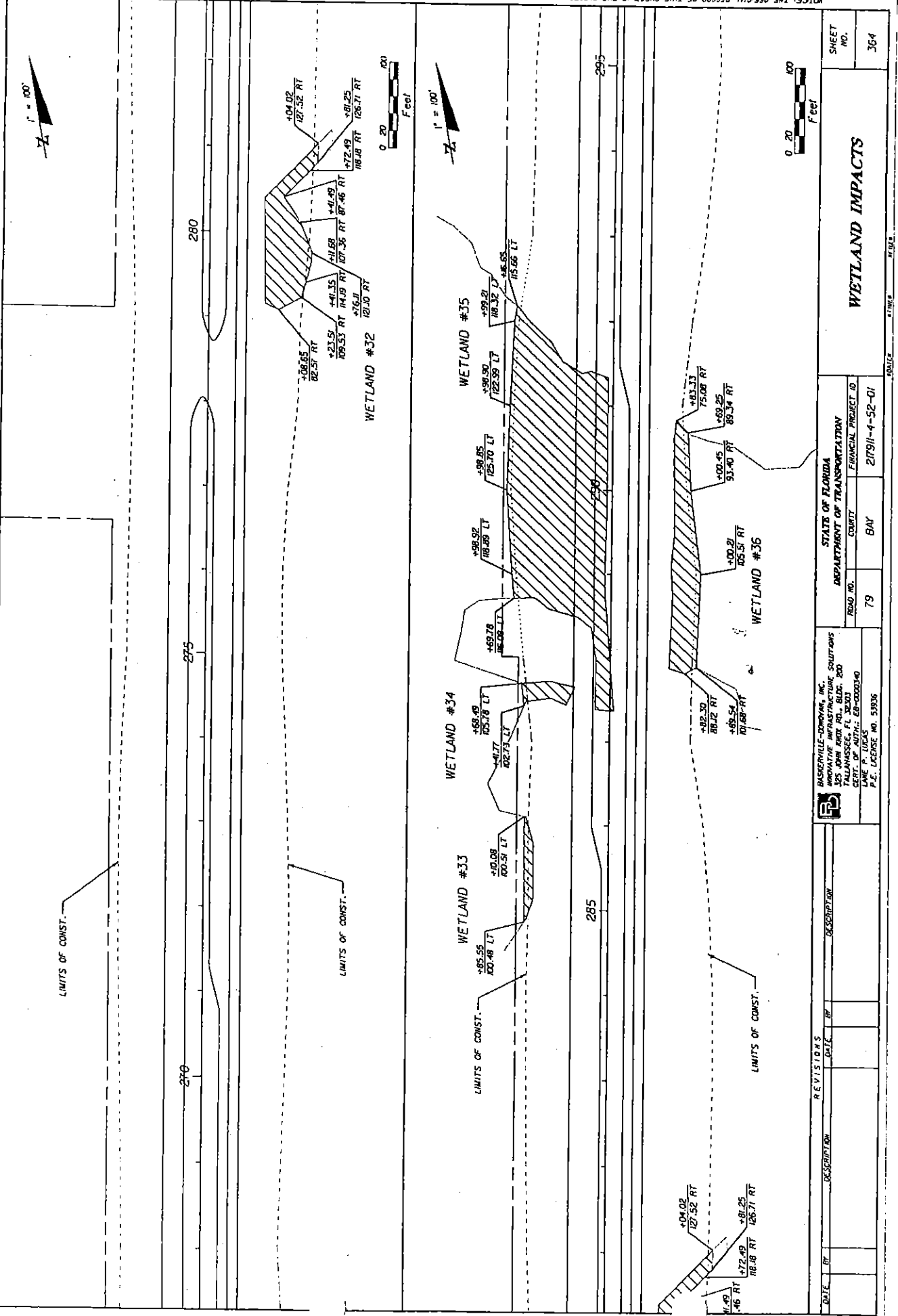


Not For Construction

SAI-2006-4624 (IP-DEB)
 FDOT/SR79, Steelfield Road to SR20

Sheet # 12 of 41 April 17, 2007

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SHEET NO. 364

WETLAND IMPACTS

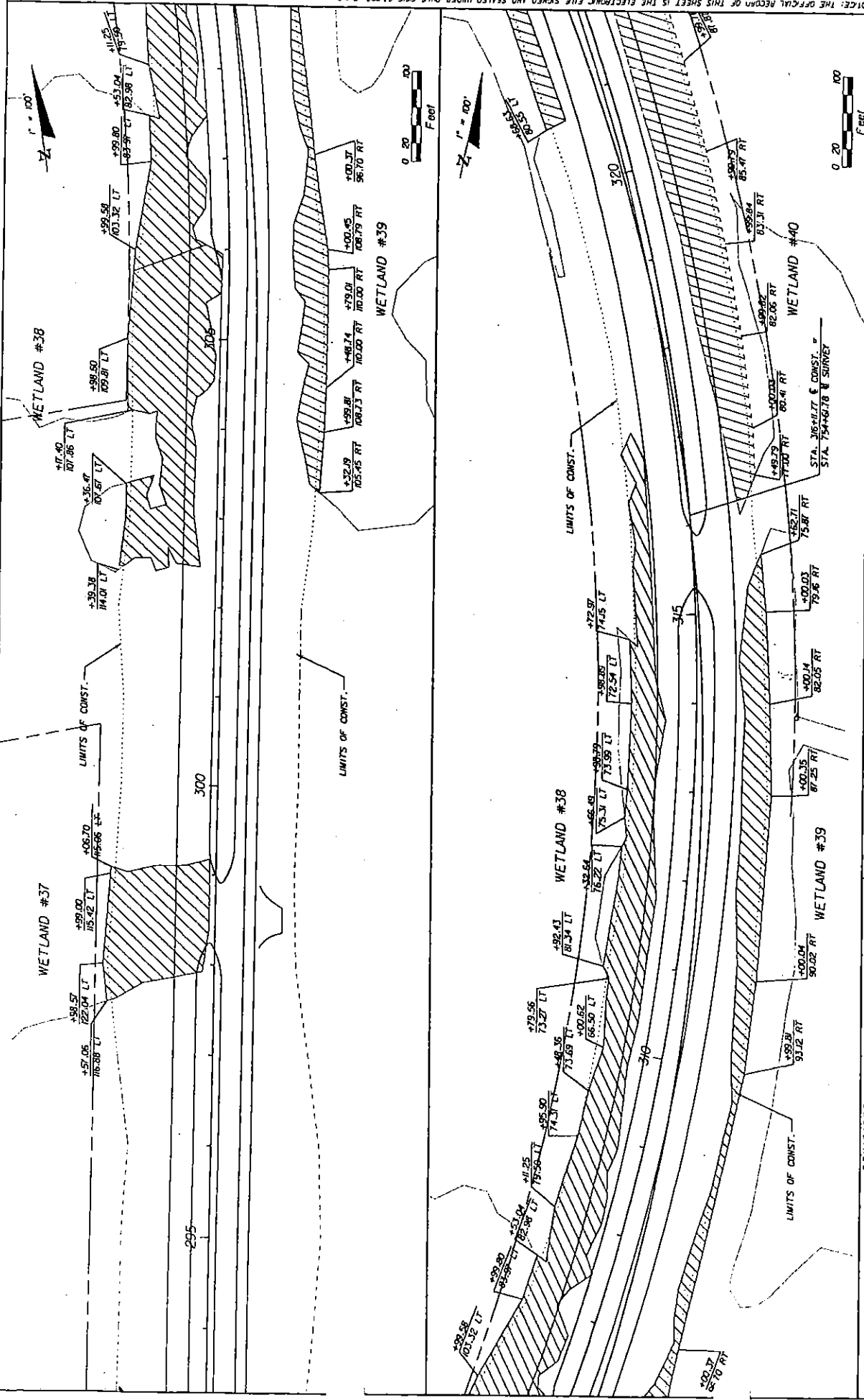
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|-------------------|--------|------------------------------|--|
| STATES OF FLORIDA | | DEPARTMENT OF TRANSPORTATION | |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID | |
| 79 | BAY | 217911-4-52-01 | |

| | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------|
| BRUCEVILLE ZIMOVAK, INC. SOLUTIONS 235 JOHN KNOX RD., SUITE 200 TALLAHASSEE, FL 32303 DATE OF AUTH.: 08-0000340 P.E. LICENSE NO. 59336 | | REVISIONS DATE BY DESCRIPTION |
| | | |

Handwritten signature and date: [Signature] 5/26/06

Not For Construction

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| DATE | BY | DESCRIPTION | DATE | BY | DESCRIPTION |
|------|----|-------------|------|----|-------------|
| | | | | | |

| | | | |
|-------------------|--------|------------------------------|--|
| STATES OF FLORIDA | | DEPARTMENT OF TRANSPORTATION | |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID | |
| 79 | BAY | 217911-4-52-01 | |

| | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------|
| BASERULES CONSULTING, INC. INNOVATIVE INFRASTRUCTURE SOLUTIONS 305 JOHN KORN ROAD, BLDG. 600 TALLAHASSEE, FL 32303 CERT. OF AUTH. # EB-0000340 PAUL LOCKER P.E. LICENSE NO. 53936 | | SHEET NO. 365 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------|

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 MAY - 3 2007
 NWFWM/D
 REGULATORY DIVISION

Not For Construction

Handwritten: 2/26/06

SAJ-2006-4624 (IP-DEB)
 FDOT/SR79, Steelfield Road to SR20
 Sheet # 14 of 41 April 17, 2007



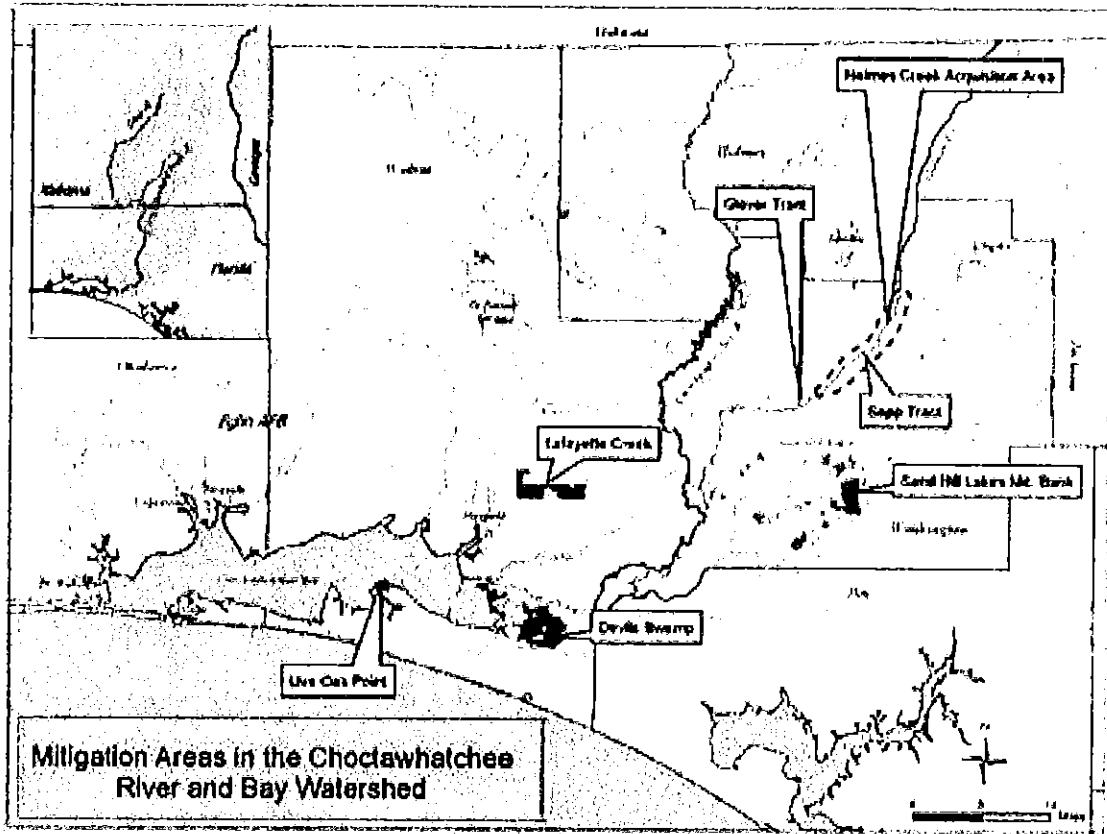


Figure 5-15. Choctawhatchee River and Bay Watershed



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SAJ-2006-4624 (IP-DEB)

FDOT/ SR79, Steelfield Road to SR20

Sheet # 16 of 41 April 17, 2007

5.3.1 Sand Hill Lakes Mitigation Bank

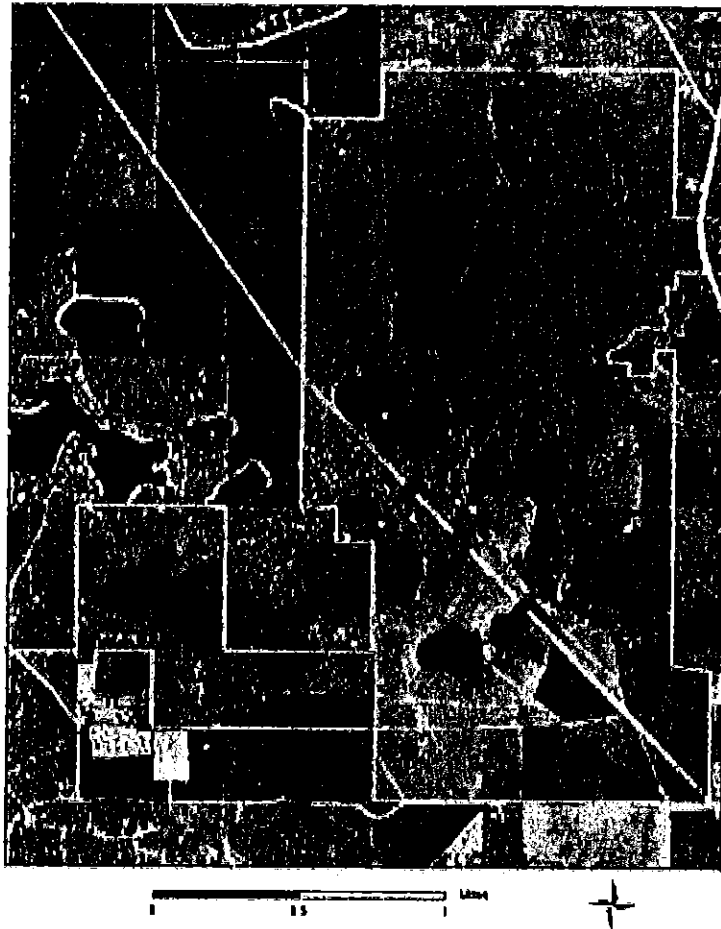


Figure 5-16. Sand Hill Lakes Mitigation Bank (2004 DOQ)

The Sand Hill Lakes Mitigation Bank (SHLMB) is preserving, enhancing and restoring 2,155.3 acres of wetlands, natural lakes and associated upland buffers. Post-restoration communities will consist of approximately 850 acres of wetlands, 150 acres of lakes and ponds, and 1,150 acres of uplands. Uplands management will include restoration and perpetual management of ~650 acres of longleaf pine / wiregrass community, and the preservation and perpetual management of ~500 acres of mesic uplands dominated by oaks and pine. The SHLMB was permitted by the CORPS in May, 2006. Attainment of all success criteria will yield 284.03 WRAP credits and 298.4 Florida UMAM credits.



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SAJ-2006-4624 (IP-DEB)

FDOT/ SR79, Steelfield Road to SR20

Sheet # 17 of 41 April 17, 2007

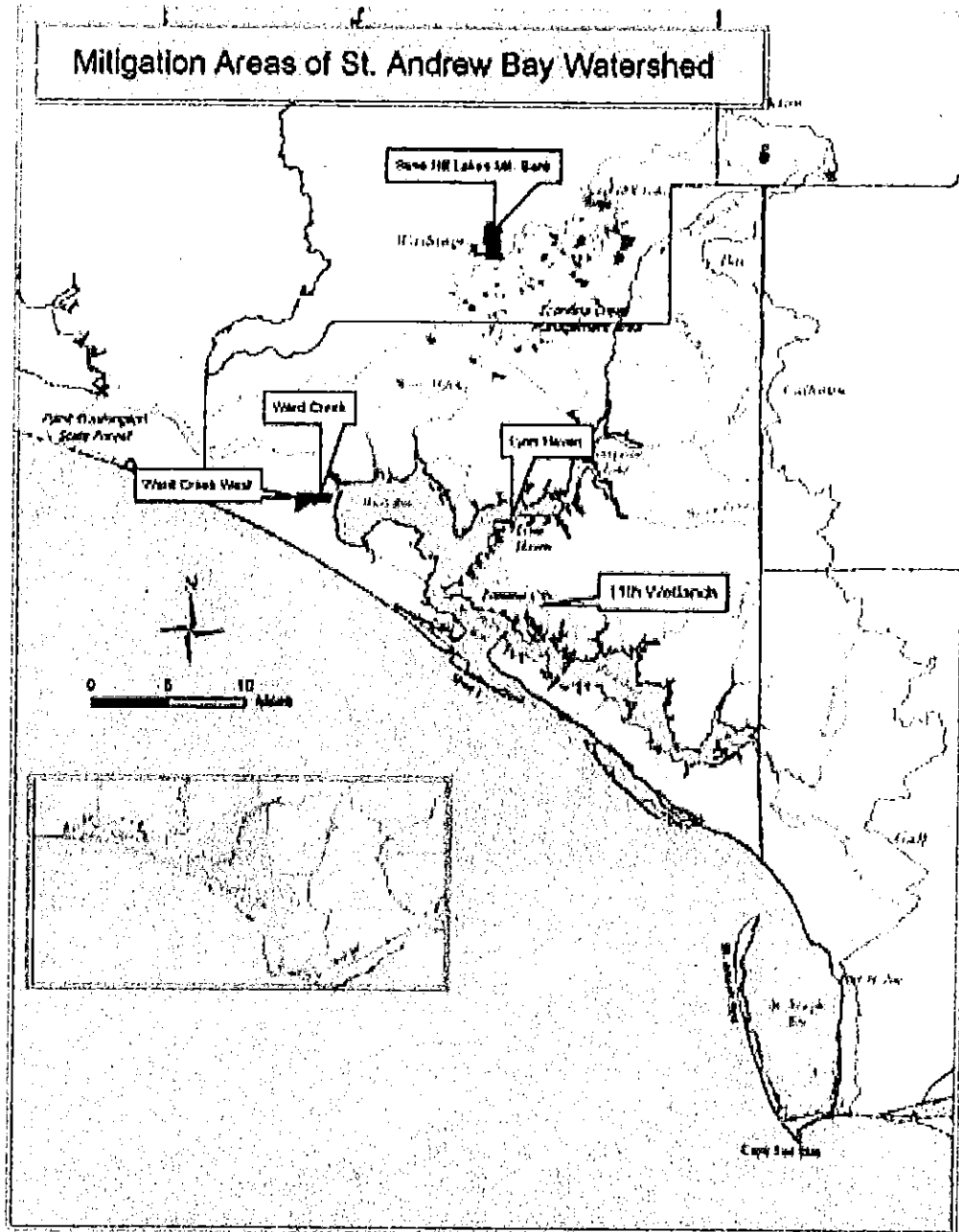


Figure 5-23. St. Andrew Bay Watershed

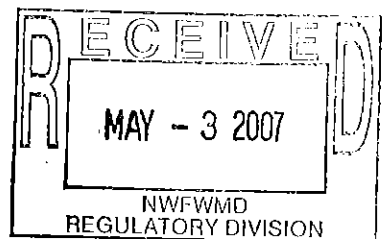


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of Engineers

SAJ-2006-4624 (IP-DEB)

FDOT/ SR79, Steelfield Road to SR20

Sheet # 1B of 41 April 17, 2007



5.4.2 Ward Creek West

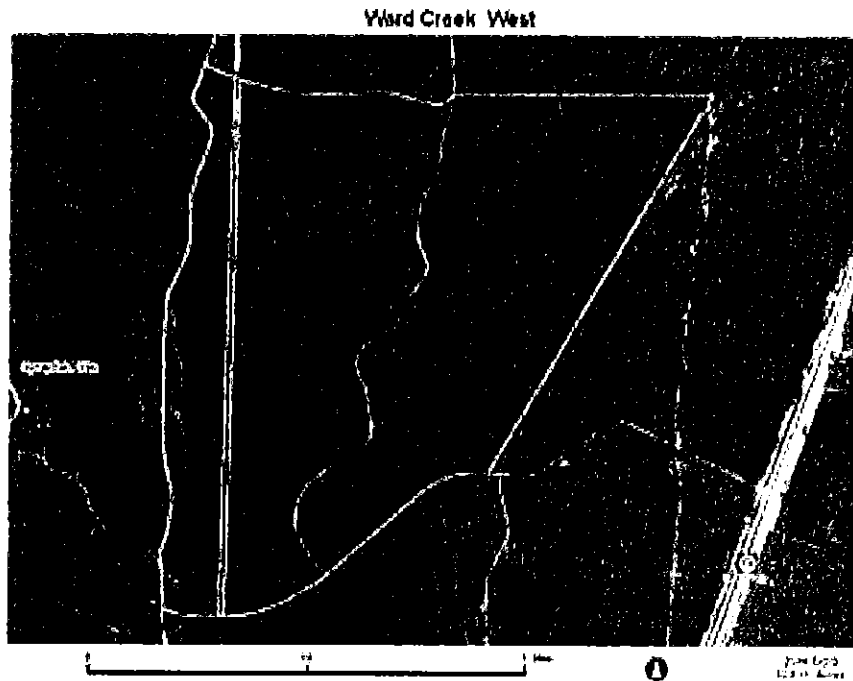


Figure 5-25. Ward Creek West

The goal of this project is restoration of hydric pine flatwoods (FLUCCS 625) from existing bedded pine plantation (FLUCCS 441). Pockets of mixed forested wetlands (FLUCCS 630) and adjacent saltwater marshes (FLUCCS 642) would also be perpetually preserved and managed for ecological integrity. The current condition consists of bedded slash pine plantation (FLUCCS 441) and associated ditching that was converted from historic hydric pine flatwoods (FLUCCS 625), with pockets of intact mixed forested wetlands (FLUCCS 630) and adjacent high-quality saltwater marshes (FLUCCS 642). Proposed work would include restoration of approximately 60 acres of hydric pine flatwoods (FLUCCS 625) via thinning of bedded slash pine, ditch plugs, seeding of herbaceous vegetation, prescribed fire and perpetual ecological management. Slash pine would be thinned to approximately 25-30 trees per acre. The property under consideration is approximately 620 acres.



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FDOT/ SR79, Steelfield Road to SR20

Sheet # 19 of 41 April 17, 2007

TABLE 6.4. ANTICIPATED AND PROPOSED TRANSPORTATION PROJECTS IN THE CHOCTAWHATCHEE RIVER AND BAY WATERSHED WITH ANTICIPATED WETLAND IMPACTS

| DOT/ ETDM # | SITE | COUNTY | ACTIVITY TYPE | ACRES ANTICIPATED WETLAND IMPACT | FIGURE |
|---------------------------------------------------------------------------|-------------------------------------------------------------------------|---------------------|--------------------------------------|----------------------------------|----------------------|
| Scheduled Transportation Projects (FDOT Environmental Inventory Projects) | | | | | |
| FIN 2179114 * | State Highway 79 – Steel Field Road to Bay-Washington County Line | Bay | Widening and Associated Improvements | 39.46 | Figure - |
| FIN 2179116 | State Highway 79 – Environmental Road/ State Road 20 | Washington | Widening and Associated Improvements | 1.28 | Figure - Figure - |
| FIN 2207731 | State Highway 79 – Environmental Road/ State Road 20 to Strickland Road | Washington | Widening and Associated Improvements | 2.09 | Figure - Figure - |
| FM 2206421 | US 98 (CR 30A-US 331) | Walton | Widening and Associated Improvements | 60 | Figure - Figure - |
| FM 2206371 | US 98 (Mack Bayou) | Walton | Widening and Associated Improvements | 21 | Figure - Figure - |
| FM 2206431 | US 98 (US 331-Peach Cr.) | Walton | Widening and Associated Improvements | 43 | Figure - Figure - |
| FM 2206631 | US 331 (Freeport Realignment) | Walton | New Roadway | 9.40 | Figure - Figure - |
| FM 2207841 | US 90 (Choctaw Bridge) | Washington & Holmes | Bridge Replacement | 3 | Figure - |
| FIN 4162401 | SR 79 (Open Creek Bridge) Washington Co. | Washington | Bridge Replacement | 2 | Figure - |
| FIN 4071671 | SR 79 (Holmes Creek Bridge & Approaches) | Washington | Bridge Replacement | 7.00 | Figure - |
| FM 220664-1-C8-01 | US 331 (US 98 to Choctaw-hatchee Bridge) | Walton | Widening and Associated Improvements | 4.29 | Figure - |
| FM 220773-4-52-01 | SR 79 (Strickland Road to north of Reedy Creek) | Washington | Widening and Associated Improvements | 6.00 | Figure - |

* For ETDM projects, impacts are based on GIS Analysis of wetlands within 200 feet of roadway sections and utilize data from the National Wetlands Inventory. Proposed impacts for FDOT Projects are delineated.

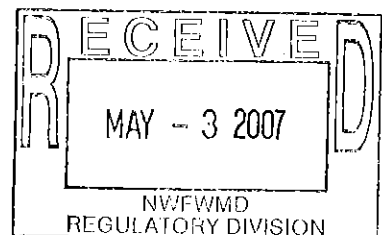


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SAJ-2006-4624 (IP-DEB)

FDOT/ SR79, Steelfield Road to SR20

Sheet # 20 of 41 April 17, 2007



6.3.1 Impacts on SR 79 from Steelfield Road in Bay Co. to Strickland Road in Washington Co.

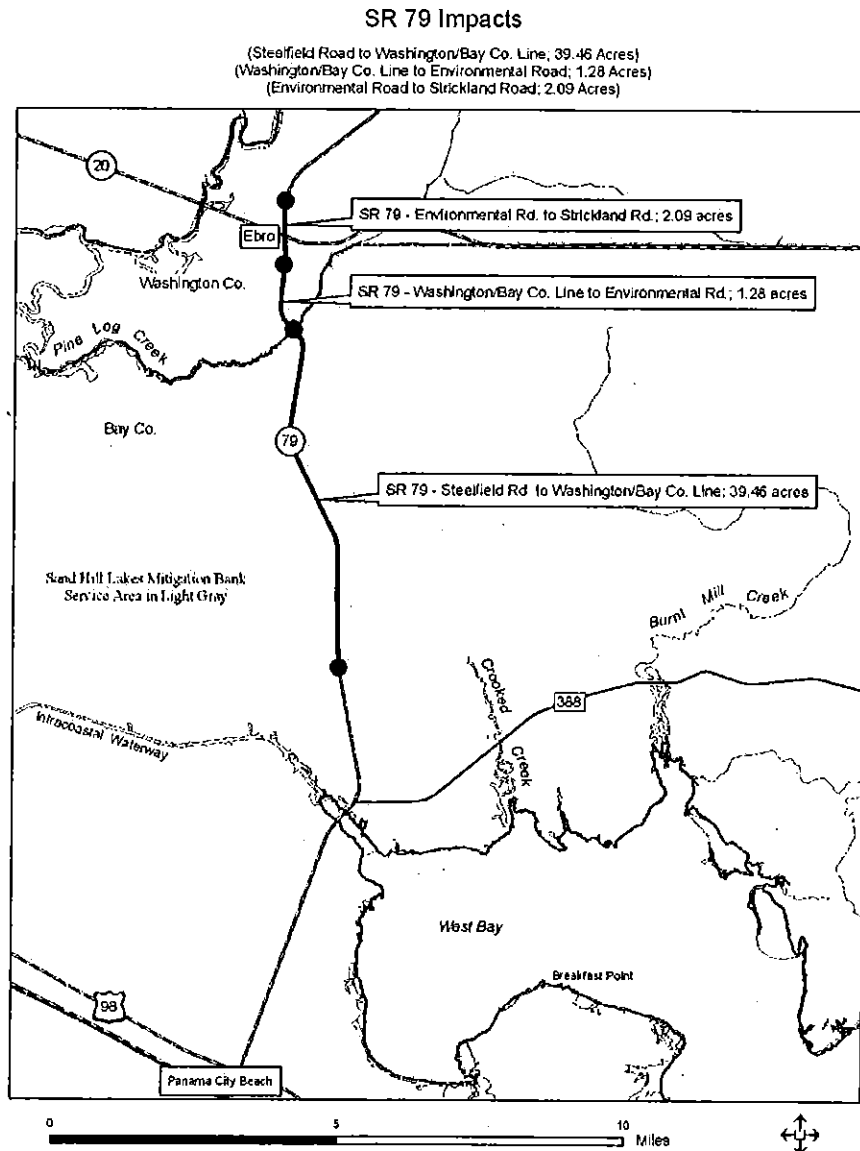


Figure -. SR 79 Impacts from Steelfield Road to Strickland Road

Per the FDOT District-3 Environmental Impact Inventory (FY 2006-2009) provided to the NFWFMD on April 28, 2006, widening of SR 79 from Steelfield Road in Bay County north to Strickland Road in Washington County will impact 42.83 acres of wetlands. Divided into three segments, the first extends from Steelfield Road to the Washington/Bay County line, and will impact 19.73 acres of high-quality FLUCCS 630 – Wetland Forested Mixed and another 19.73 acres of high-quality FLUCCS 640 – Vegetated Non-Forested Wetlands. The second segment extends from the county line to SR 20, and will impact 0.64 acres of high-quality FLUCCS 630 –



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SAJ-2006-4624 (IP-DEB)

FDOT/ SR79, Steelfield Road to SR20

of wetlands. Wetland FLUCCS codes for the impacts have not been provided. The project designation is FM 220664-1-C8-01 / NW35.

6.4 St. Andrew Bay Watershed

St. Andrew Bay watershed has numerous planned road projects due largely to significant planned land development in the vicinity of Panama City and West Bay, including the Bay County Sector Plan and proposed airport relocation. Proposed project locations are listed in Table 6.5 and illustrated in Figure 6-12.

| TABLE 6.5. ANTICIPATED AND PROPOSED TRANSPORTATION PROJECTS IN THE ST. ANDREW BAY WATERSHED WITH ANTICIPATED WETLAND IMPACTS | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|----------|--------------------------------------|----------------------------------|----------------------|
| DOT/ ETDM # | SITE | COUNTY | ACTIVITY TYPE | ACRES ANTICIPATED WETLAND IMPACT | FIGURE |
| Proposed Transportation Projects (ETDM) | | | | | |
| ETDM 2854 | SR 22 (Wewa Hwy) | Bay | Widening and associated improvements | 35 | Figure - Figure - |
| ETDM 2853 | Baldwin Rd | Bay | Widening and associated improvements | 31 | Figure - Figure - |
| ETDM 2856 | 23rd Street (SR 368) | Bay | Widening and associated improvements | 6 | Figure - Figure - |
| ETDM 7559 | Gulf Coast Parkway | Bay/Gulf | New roadway | 302 | Figure - Figure - |
| SAI FL200410050098 | Stumphole | Gulf | Realignment; New bridge | 37 | Figure - Figure - |
| Scheduled Transportation Projects (FDOT Environmental Inventory Projects) | | | | | |
| FIN 2179114 * | SR 79 (Steel Field Road to Wash./Bay Co. Line) | Bay | Widening and associated improvements | 20 | Figure - Figure - |
| FM 2178641 | US 98 (@Thomas Dr.) | Bay | Bridge approach improvements | 3 | Figure - Figure - |
| FM 2179481 | SR 77 (CR 2300-Mill Creek) | Bay | Widening and associated improvements | 27 | Figure - Figure - |
| FM 2206441 | US 98 (Peach Cr.-Bay County Line) | Walton | Widening and associated improvements | 57 | Figure - Figure - |
| FM 2179471 | SR 77 (N. Bay-CR 2300) | Bay | Widening and associated improvements | 11 | Figure - Figure - |
| FM 2180031 | SR 79 (US 98-W.Bay Bridge) | Bay | Widening and associated improvements | 14 | Figure - Figure - |
| FM 2179482 | SR 77 (Mill Cr-SR 20) | Bay | Widening and associated improvements | 5 | Figure - Figure - |
| FM 217911-3-52-01 | SR 79 (CR 388 to Steel Field Road). | Bay | Widening and Associated Improvements | 8.53 | |
| * For ETDM and Stumphole projects, impacts are based on GIS Analysis of wetlands within 200 feet of roadway sections and utilize data from the National Wetlands Inventory. Proposed impacts for FDOT Projects are delineated. | | | | | |



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SAJ-2006-4624 (IP-DEB)

FDOT/ SR79, Steelfield Road to SR20

8.1 Mitigation Credit Ledger

| Table 8.2. Mitigation Credit Ledger by Watershed | | | | |
|--------------------------------------------------|-----------------------------------|------------------------|--------------|-----------------------------|
| Mitigation Project | Estimated Credits to be Developed | Current Credit Balance | | |
| | | Developed Credits | Credits Used | Credits Currently Available |
| Perdido River and Bay Watershed | | | | |
| IP Lands – Perdido | TBD | TBD | TBD | TBD |
| Perdido Pitcher Plant Preserve | TBD | TBD | TBD | TBD |
| Sorrento Road Wetlands | TBD | TBD | TBD | TBD |
| | | | | |
| Totals: | | | | |
| Pensacola Bay System | | | | |
| Yellow River Ranch | 70 | 20 | 20 | 50 |
| Jones Swamp (overall) | 1,000 | 16 | 16 | 296 |
| Jones Swamp (Regan-Woodbury Preserve) | 300 | 0 | 0 | 0 |
| Brewer Tract | 8 | 8 | 8 | 0 |
| Rogers Tract | 3 | 3 | 3 | 0 |
| Bluff Springs | 38 | 25 | 25 | 13 |
| Escambia River Beaver Control | 1 | 1 | 1 | 0 |
| Shoal River Wetlands | 300 | 0 | 0 | 0 |
| Woodbine Tract | TBD | TBD | TBD | TBD |
| | | | | |
| Totals: | | | | |
| Choctawhatchee River and Bay Watershed | | | | |
| Devils Swamp | 250 | 200 | 200 | 50 |
| Live Oak Point | 10 | 6 | 6 | 4 |
| Lost Lake | 2 | 2 | 2 | 0 |
| * Sand Hill Lakes Mitigation Bank | 298 | 57 | 57 | 241 |
| Lafayette Creek | 100 | 9 | 9 | 91 |
| Holmes Creek Acquisitions | TBD | TBD | TBD | TBD |
| | | | | |
| Totals: | | | | |
| St. Andrew Bay Watershed | | | | |
| Lynn Haven | 1 | 1 | 1 | 0 |
| * Ward Creek | 25 | 0 | 0 | 0 |
| Ward Creek West | 40 | 0 | 0 | 0 |
| St. Andrew Bay Area Acquisitions | TBD | TBD | TBD | TBD |
| | | | | |

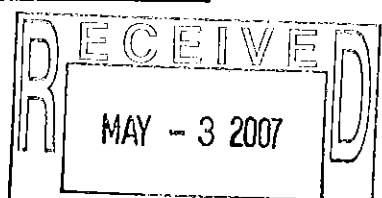


US Army Corps
of Engineers

SAJ-2006-4624 (IP-DEB)

FDOT/ SR79, Steelfield Road to SR20

Sheet # 23 of 41 April 17, 2007





6. the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SPECIFIC CONDITIONS:

1. If the approved permit drawings conflict with the specific conditions, then the specific conditions shall prevail.
2. If during the progress of this project prehistoric or historic artifacts, such as pottery or ceramics, stone tools or metal implements, dugout canoes, or any other physical remains that could be associated with Native American cultures or early colonial or American settlement are encountered at any time within the project site area, the permitted project should cease all activities involving subsurface disturbance in the immediate vicinity of such discoveries. The permittee, or other designee, shall contact the Florida Department of State, Division of Historical Resources, Review and Compliance Section at (850) 245-6333 or (800) 847-7278, as well as the appropriate permitting agency office. Project activities should not resume without verbal and/or written authorization from the Division of Historical Resources. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the proper authorities notified in accordance with Section Chapter 872.05, Florida Statutes.
3. At least 48 hours and no more than one week prior to commencement of work authorized by this permit, the permittee shall notify the Department of Environmental Protection, Submerged Lands & Environmental Resources Program, Compliance and Enforcement Section, Panama City Branch Office, 2353 Jenks Avenue, Panama City, Florida 32405, in writing. The Department telephone number for reporting problems, malfunctions or exceedances under this permit is (850) 872-4375 during normal working hours.
4. All wetland areas or water bodies that are outside the specific limits of construction authorized by this permit must be protected from erosion, siltation, scouring and/or dewatering. Turbidity barriers shall be installed prior to any excavation or placement of fill material and shall be maintained in effective condition at all locations until construction is completed and disturbed areas are stabilized. Thereafter, the permittee must remove the barriers. At no time shall there be any discharge in violation of the water quality standards in Chapter 62-302, Florida Administrative Code.

Turbidity/erosion controls shall be installed prior to any clearing, excavation or placement of fill material and shall be maintained in an effective condition at all locations until construction is completed, disturbed areas are stabilized, and turbidity levels have fallen to less than 29 NTU's above background. The permittee shall be responsible for ensuring that erosion control devices/procedures are inspected/maintained daily during all phases of construction authorized by this permit. Once these conditions are met, the turbidity and erosion control devices shall be removed within 14 days. Staked filter cloth shall be positioned at the edge of the permitted fill slopes where they are adjacent to wetlands in order to prevent turbid run-off and erosion.

5. All storage or stockpiling of tools or materials (i.e. lumber, pilings, etc.) shall be limited to uplands or within the impact areas authorized by this project. In addition, all equipment being utilized shall be limited to operation and storage in uplands or within the impact areas authorized by this permit.

6. In accordance with Rule 62-312.020 (16), Florida Administrative Code, (as adopted in 62-330.100(1)) "riprap" shall consist of unconsolidated boulders, rocks, or clean concrete rubble with no exposed reinforcing rods or similar protrusions. The riprap shall be free of sediment, debris and any toxic or otherwise deleterious substance. The riprap shall have at least a six inch diameter.

7. Construction activity shall be confined to the authorized impact areas only. Any unauthorized impacts to adjacent wetlands as a result of construction activities shall be reported by the permittee and its consultants/contractors to the Compliance and Enforcement Section of the Submerged Lands and Environmental Resource Program at (850) 872-4375, within 48 hours of discovering the unauthorized impact.

8. Dredging within Waters of the State for the purpose of providing backfill is specifically prohibited.

9. This permit shall be readily available at the project site to any duly authorized representative of the Department, the U.S. Army Corps of Engineers, or any empowered law enforcement officer. A copy of this permit and associated drawings shall be clearly posted and remain on site at all times during the activities.

10. In addition to a consolidated wetland resource permit you are required to obtain a stormwater treatment permit from the Department for the project site.

11. All cleared vegetation, excess lumber, scrap wood, trash, garbage, and any other type of debris shall be removed from the wetlands/waters of the state within 14 days of completion of the work authorized in this permit.

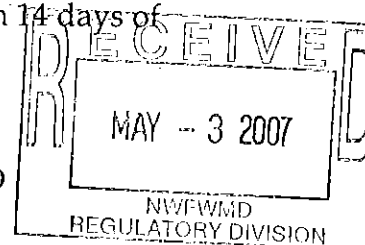


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12. The terms, conditions, and provisions of the required easement shall be met. Construction of this activity shall not commence on sovereign submerged lands, title to which is held by the Board of Trustees of the Internal Improvement Trust Fund, until all required easement documents have been executed to the satisfaction of the Department.

13. This permit shall be readily available at the project site to any duly authorized representative of the Department, the U.S. Army Corps of Engineers, or any empowered law enforcement officer. A copy of this permit and associated drawings shall be clearly posted and remain on site at all times during the activities.

14. Prior to construction, the limits of the proposed impact area shall be clearly flagged and staked by the agent and/or the contractor in the beginning phase of construction. All construction personnel shall be shown the location(s) of all wetland areas outside of the construction area to prevent encroachment from heavy equipment into these areas.

Mitigation Conditions:

15. Mitigation shall be associated with the Regional Mitigation Plan pursuant to OGC #99-1877 and Senate Bill 1986 (Chapter 373.4137, F.S.).

RIGHTS OF AFFECTED PARTIES:

This permit and the one year consent to use sovereign submerged lands, in pursuant to 18-21.005(1)(c)(14) Florida Administrative Code, to perform the activity on the specified sovereign submerged lands with the understanding that the activity shall require the applicable form of authorization as specified in 18-21 F.A.C. within one year of issuance of this consent to use, are hereby granted. This action is final and effective on the date filed with the Clerk of the Department unless a sufficient petition for an administrative hearing is timely filed under sections 120.569 and 120.57 of the Florida Statutes as provided below. If a sufficient petition for an administrative hearing is timely filed, this action automatically becomes only proposed agency action on the application, subject to the result of the administrative review process. Therefore, on the filing of a timely and sufficient petition, this action will not be final and effective until further order of the Department.

Mediation is not available.

A person whose substantial interests are affected by the Department's action may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and



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**FRESHWATER MUSSEL SURVEY PROTOCOL FOR THE SOUTHEASTERN
ATLANTIC SLOPE AND NORTHEASTERN GULF DRAINAGES IN FLORIDA AND
GEORGIA**



**United States Fish and Wildlife Service,
Ecological Services and Fisheries Resources Offices**

**Georgia Department of Transportation,
Office of Environment and Location**

DRAFT - July 2005

**Stacey Carlson, Alice Lawrence¹, Holly Blalock-Herod²,
Katie McCafferty³, and Sandy Abbott⁴**



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ABSTRACT

Within the Southeastern Atlantic Slope and Northeastern Gulf Drainages of Florida and Georgia, the U.S. Fish and Wildlife Service (Service) has identified a need for a standardized mussel survey protocol that can be used across physiographic provinces. The Service and Georgia Department of Transportation (GDOT) worked cooperatively to develop this DRAFT Mussel Sampling Protocol (Protocol) to ensure that it fulfills the dual objectives of the Service and GDOT. However, its intended use is for all agencies and applicable field biologists. This Protocol is designed to serve as a tool to qualitatively determine if federally protected species, including candidates, are present within an area. The Protocol ensures a level of consistency and comparability among surveys and should be applied for all mussel surveys that are funded, permitted, or requested by the Service in this area. It establishes minimum qualifications of surveyors, discusses permit requirements, suggests preliminary research needs, details a standard operating procedure for qualitative surveys, and provides guidance for deliverables. The standard operating procedure outlines a method for determining a prescribed search area (PSA) to ensure that appropriate stream coverage is achieved among various projects while searching for mussels. Surveyors may choose to bypass the qualitative survey (if the area is known to support listed species), and opt for a statistically valid quantitative survey. A brief discussion and reference are provided to address quantitative sampling designs.

I. INTRODUCTION

The Endangered Species Act (ESA) requires consultation with the Service for activities that are authorized, funded, or carried out by a Federal agency that may affect federally listed or candidate species or critical habitat. The Service consults with many local, State, and Federal agencies, as well as private entities, regarding the conservation and protection of federally listed and candidate species. The Service's role in coordinating with various entities in order to protect threatened, endangered, or candidate freshwater mussels has significantly increased as instream construction, maintenance, and relicensing of new and existing structures has become more commonplace. Therefore, this Protocol is intended to provide standard operating procedures for establishing the presence/absence of federally listed or candidate species within a project area and documenting potential impact(s) of projects on these species, as well as ensuring that the most conservative measures are being taken to protect threatened, endangered, and candidate species.

The need for this Protocol stems from increasing impacts to streams in the Southeast due to urban expansion, development, and highway construction, as well as the need for a reporting framework to ensure quality data are collected. It is intended to be used for surveys that determine the presence/absence of federally protected and candidate mussels, their communities, and/or the impacts to these mussels that would occur as the result of highway construction, impoundments, pipeline crossings, dredging, channelization, and riparian land-use practices. These activities can alter stream characteristics, causing sediment



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that stream type and a high proportion of potential impacts (i.e., increased sedimentation and altered flow rates) from the specific project. The upstream PSA length should be an appropriate distance to locate representative mussel species from that basin and associated habitats that are subsisting in a "less" impaired area than the downstream habitats. Additionally, the upstream PSA should be long enough to determine appropriate habitat types and locations if mussel relocation is required.

A standardized survey is important in creating comparable and consistent survey efforts, as well as providing quality assurance. The methods outlined in this draft Protocol were created to be specific, but flexible, to account for the site-specific nature of mussel surveys. Please note that this draft Protocol is a dynamic document subject to change and will be updated as relevant data become available. Specific survey methods will be field-tested in 2004 and 2005 for feasibility and applicability in determining the presence/absence of federally protected and candidate mussel species within a potential project area. The Protocol will be posted on the Georgia (www.athens.fws.gov) and Florida Ecological Services websites (www.fws.gov/panamacity) with a comment page to send comments on revised versions and/or updated species-related data. There will also be a page documenting substantial changes to the Protocol where applicable. In addition, the Service is currently developing educational programs and materials, including a mussel identification workshop, as well as Florida/Georgia mussel guides, posters and pamphlets.

Goals

- 1) Provide standardized procedures and recommendations for survey methods used to determine presence/absence of threatened, endangered, or candidate mussel species.
- 2) Provide standardized procedures and recommendations for mussel surveys when additional quantitative information is necessary to determine project impacts on threatened, endangered, or candidate mussel species within the project area.
- 3) Provide comparable and consistent mussel survey methods, which will also allow for expanding the mussel survey Geographic Information Systems (GIS) database and updating Protocol procedures.

II. STANDARD OPERATING PROCEDURES

A. Surveyor Qualifications

Personnel who will be conducting surveys should have sufficient knowledge within the basin they propose to survey. This includes species-specific biology and ecological requirements, and the ability to identify freshwater mussel species from the basin. A mussel surveyor should have sufficient experience, which includes documented field-time, and the ability to demonstrate skills in independently executing survey methods and locating and identifying federally protected and candidate freshwater mussel species. Furthermore, a surveyor should be able to document experience in the safe-care and handling of threatened, endangered, or candidate mussels. Individuals familiar with

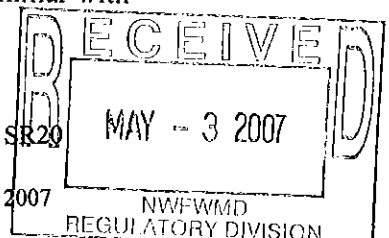


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for technical assistance regarding listed and candidate species, accepted survey methodologies, and timing of the survey.

Additional consideration should be given to prevent the spread or introduction of nonindigenous species while conducting surveys. Before moving between basins, all gear, including, but not limited to, wetsuits, collecting bags, boats and trailers, must be washed and dried and deemed free of mud and aquatic plants. Boats and trailers must also be scrubbed and washed down with chlorine bleach, and live wells must be emptied over dry land or in the basin where the water was collected, especially when they have been in basins where zebra mussels have been detected. The website for the Service's Aquatic Nuisance Species Task Force is provided for additional information (www.anstaskforce.gov).

D. Survey Methods

Qualitative and quantitative methods are commonly used for mussel surveys. Qualitative methods typically provide presence/absence data and may provide relative abundance and species diversity if the Protocol methods are followed. Qualitative surveys have been demonstrated to produce more robust species lists, especially when the presence of a rare species is in question (Miller and Payne 1993, Strayer *et al.* 1997, Vaughn *et al.* 1997). Quantitative surveys can provide a multitude of data related to population demography and are necessary if an impact analysis is needed. Furthermore, both qualitative and quantitative methods provide information that may be pertinent in compliance with the National Environmental Policy Act and the ESA.

This draft Protocol defines and utilizes qualitative and quantitative survey methods in the following manner. Qualitative surveys are presence/absence surveys using tactile and visual search methods, where catch per unit effort (CPUE) can be calculated based on PSA. These surveys generally do not include the use of quadrat and/or substrate removal methods. For this Protocol, the purpose of conducting qualitative surveys is to provide resource agencies with presence/absence data, assemblage richness, and an indication of relative abundances and recruitments. An indication of recruitment can be ascertained from measuring the smallest specimen found for each federally protected and candidate mussel species located. Qualitative surveys will be recommended at ALL project sites with perennial streams. A second, quantitative, survey may be appropriate at a later date if federally protected species are found within the project area.

Quantitative surveys use abundance-based methods, such as, quadrats and excavation to determine densities and more absolute recruitment data. A quantitative survey could be recommended if the Service needs information in addition to the qualitative survey data to adequately assess potential impacts to the protected species within the project area. The recommendation for a quantitative survey will occur on a case-by-case basis and will require consultation or conferencing with the Service following a qualitative survey if federally protected or candidate mussels may be affected. The Service will review the



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sustain cumulative impacts from a project, in addition to a buffer zone upstream and downstream of the project site. The length of each buffer zone should be determined using Section (E) of this Protocol. Surveying should be conducted from downstream to upstream to minimize disturbance (i.e., turbidity) and should be conducted from bank to bank.

The qualitative survey should begin by conducting a visual search to examine dead shells along stream shorelines and all exposed areas. The visual search on the bank(s) should be conducted in addition to a tactile (hand-grubbing should be 1-2 inches into substrate to increase detection of more deeply buried mussels) search and, if possible, visual search for individuals within the water. These should be used in conjunction with the following techniques: 1) for areas less than an arm's length in depth, mask and snorkel combined with hand grubbing should be used. In some streams, mask and snorkel is not appropriate and/or feasible due to turbid conditions and extreme low flows, in which case, only hand-grubbing would be sufficient. The use of view buckets is not appropriate due to the inconsistent nature of water clarity but may be used as a supplemental method. 2) For areas greater than an arm's length in depth, SCUBA diving equipment should be used (divers should follow all applicable safety regulations).

One color photograph should be taken of each live mussel species found during the survey. If individuals of a native mussel species are located, they should be identified and enumerated, up to the first 100 individuals. If live federally protected or candidate species are located, they should be identified, enumerated, and measured for length. If more than 100 individuals of a single federally protected or candidate species are detected, measure lengths for the first 100 individuals and count the remaining individuals. Shells should be measured with calipers to the nearest 0.1 mm for length. Shell length is measured as the greatest distance from the anterior to the posterior shell margin (Appendix A). To minimize stress, all mussels should be measured while in the water or remain in a mesh collecting bag kept in the water and measured and photographed one-at-a-time. Mussels should not be exposed to air any longer than it takes to actually measure and photograph the animal. The federally protected and candidate species must be placed, unharmed, to appropriate habitats in the area of collection. The mussel should be placed on the substrate and left to appropriately burrow into the correct direction, position, and depth. The surveyor should only retain shells that no longer contain a live individual (separate State and Federal permits are necessary to retain shells). Relict shells of federally protected species (only) should be enumerated/estimated on the data sheet.

Justifications as to why the standard operating procedures were not followed should be included in the final report, as well as any correspondence or communication with the Service regarding these deviations. The surveyor should collect general information regarding the survey area at the time of the survey. At a minimum, information that should be collected is indicated on the recommended data sheet.

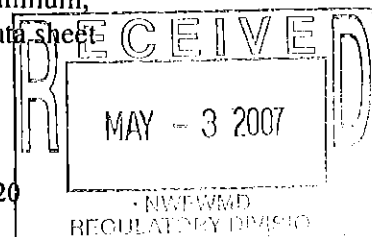


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The minimum lengths should incorporate appropriate mussel habitat(s), such as gravel and cobble substrate, islands, sand bars, muddy sand substrates around tree roots, sand/limestone, and pools, riffles, and runs, etc. If appropriate habitat(s) is not included in the minimum length, the surveyor should extend the PSA (within reason) to locate and search appropriate habitat(s). Surveyors should also survey any unique habitats that may be outside of the PSA. Additionally, if the surveyor determines the minimum length does not encompass all direct/indirect impacts associated with the project, they should extend lengths as necessary.

III. DELIVERABLES

A. Early Coordination or Conferencing

Early coordination or conferencing with the Service and DOT should take place prior to the survey and is an important aspect in determining whether appropriate survey techniques are being adhered to and/or ensuring that deviations from this Protocol will be accepted by the Service and DOT. At this stage, the surveyor may contact the Service for technical assistance regarding the project location, mussel species in the area, project impacts, survey methodologies, and length of the PSA. The Service office responsible for the area in which the survey will be conducted should be contacted for technical assistance. All correspondences regarding technical assistance to the lead Service office should be copied to the Service aquatic biologist in the appropriate region, as well as the contact person within the company or department for which the survey is being conducted.

If there are no deviations from the Protocol or need for technical assistance from the Service, it is recommended that the surveyor provide the Service with the basic information below and time frames the mussel survey will be conducted. This information can be informally provided to the Service via a brief letter and/or email, preferably 30 days prior to the start of the survey. Should the surveyor choose not to provide the Service with this information and not to engage in early coordination, the surveyor should be aware that the survey report may not be sufficient and a second survey may be requested.

Information to include in early coordination:

1. Preliminary Research

State the purpose of the survey, and list the Federal species of concern, candidate species, and threatened and/or endangered species that may be expected to occur in the drainage basin in which the stream(s) to be surveyed is located. Include the information required in II. C.



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timing of the survey and determination of PSA. Written correspondences and/or emails can be included as appendices but should be explained as necessary.

3. References

Include all literature sources used in preparation for the survey and for the survey reporting including but not limited to journal articles, unpublished papers, and personal communication.

C. Distribution

Please send one copy of the final report (including copies of original field data sheets) directly to the:

U.S. Fish and Wildlife Service
Panama City Field Office
c/o Holly Blalock-Herod
1601 Balboa Ave.
Panama City, Florida 32405

Site-specific physical, chemical, and biological data will be incorporated into a consolidated GIS database that tracks mussel populations at survey sites. The database was established to serve as a host for data collected during mussel sampling/surveying in order to: 1) provide one system to combine records from various reports and published literature; 2) track ongoing survey sites and current population trends; 3) identify locations of past and present communities that support(ed) federally listed or other species considered imperiled; 4) determine where data gaps exist; and 5) aid in the decision-making process concerning habitat restoration, long-term monitoring, and permitting/consultation issues.

Additional report copies should be sent to:

The lead U.S. Fish and Wildlife Service office;

Georgia Department of Natural Resources
Natural Heritage Program
2117 U.S. Highway 278 SE
Social Circle, Georgia 30025-4714
ATTN: Brett Albanese;

Marston Science Library
University of Florida
c/o Vernon Kisling,
P.O. Box 117001



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Please send comments or questions to one or all of the authors at:

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³Katherine McCafferty; Georgia Department of Transportation, Office of Environment and Location, 3993 Aviation Circle, Atlanta, GA 30336; katie.mccafferty@dot.state.ga.us

⁴Sandy Abbott; U. S. Fish and Wildlife Service, Ecological Services, P.O. Box 52560, Fort Benning, GA 31905-2560; Sandy_Abbott@fws.gov



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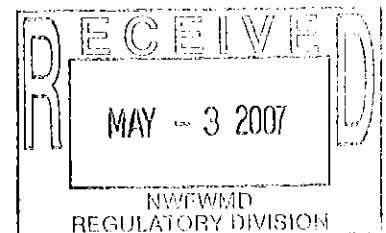


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APPENDIX A

Shell Measurement Diagram



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APPENDIX B

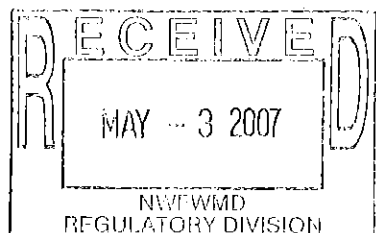
Recommended Field Data Sheets



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|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Other Site Features* | Unpaved road/path on bank None <input type="checkbox"/> Us <input type="checkbox"/> Ds <input type="checkbox"/> Rt <input type="checkbox"/> <input type="checkbox"/> Lt <input type="checkbox"/> <input type="checkbox"/> | Pipe Discharge None <input type="checkbox"/> Us <input type="checkbox"/> Ds <input type="checkbox"/> Rt <input type="checkbox"/> <input type="checkbox"/> Lt <input type="checkbox"/> <input type="checkbox"/> | Trash Debris None <input type="checkbox"/> Us <input type="checkbox"/> Ds <input type="checkbox"/> Rt <input type="checkbox"/> <input type="checkbox"/> Lt <input type="checkbox"/> <input type="checkbox"/> Midstream <input type="checkbox"/> | Rock Ledge None <input type="checkbox"/> Us <input type="checkbox"/> Ds <input type="checkbox"/> Rt <input type="checkbox"/> <input type="checkbox"/> Lt <input type="checkbox"/> <input type="checkbox"/> | Stream Access None <input type="checkbox"/> Us <input type="checkbox"/> Ds <input type="checkbox"/> Rt <input type="checkbox"/> <input type="checkbox"/> Lt <input type="checkbox"/> <input type="checkbox"/> Condition |
| | Fence Presence None <input type="checkbox"/> Us <input type="checkbox"/> Ds <input type="checkbox"/> Rt <input type="checkbox"/> <input type="checkbox"/> Lt <input type="checkbox"/> <input type="checkbox"/> Crossing <input type="checkbox"/> <input type="checkbox"/> | Stream Barrier Present Waterfall <input type="checkbox"/> Us <input type="checkbox"/> Ds <input type="checkbox"/> Beaver dam <input type="checkbox"/> <input type="checkbox"/> Manmade Imped <input type="checkbox"/> <input type="checkbox"/> Dam <input type="checkbox"/> <input type="checkbox"/> Other <input type="checkbox"/> <input type="checkbox"/> | Power Lines None <input type="checkbox"/> Us <input type="checkbox"/> Ds <input type="checkbox"/> Rt <input type="checkbox"/> <input type="checkbox"/> Lt <input type="checkbox"/> <input type="checkbox"/> Crossing <input type="checkbox"/> <input type="checkbox"/> Cell phone tower <input type="checkbox"/> | Other Road Xing None <input type="checkbox"/> Upstream <input type="checkbox"/> Downstream <input type="checkbox"/> Condition | Railroad Xing None <input type="checkbox"/> Upstream <input type="checkbox"/> Downstream <input type="checkbox"/> Condition |
| Site Road Crossing | Road Type** Primary <input type="checkbox"/> Secondary <input type="checkbox"/> | Road Condition Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> | Crossing Type Paved bridge <input type="checkbox"/> Wood bridge <input type="checkbox"/> Unpaved bridge <input type="checkbox"/> Crossing Paved box culvert <input type="checkbox"/> Condition How many? Unpaved box culvert <input type="checkbox"/> # blocked? Paved pipe culvert <input type="checkbox"/> Abraded <input type="checkbox"/> Downstream drop-off? Unpaved pipe culvert <input type="checkbox"/> Rusted <input type="checkbox"/> | | |
| | Bridge Construction None <input type="checkbox"/> Current <input type="checkbox"/> Recent <input type="checkbox"/> | | | | |
| Weather Conditions | Present Heavy rain <input type="checkbox"/> Steady rain <input type="checkbox"/> Scattered showers <input type="checkbox"/> Clear/sunny <input type="checkbox"/> % Cloud cover <input type="checkbox"/> | Past 24 hrs Heavy rain <input type="checkbox"/> Steady rain <input type="checkbox"/> Scattered showers <input type="checkbox"/> Clear/sunny <input type="checkbox"/> % Cloud cover <input type="checkbox"/> | Wind None <input type="checkbox"/> Light breeze <input type="checkbox"/> Strong wind <input type="checkbox"/> | Heavy rain in past 7 days Yes <input type="checkbox"/> No <input type="checkbox"/> Air Temperature: Est. <input type="checkbox"/> Act. <input type="checkbox"/> | |
| | Photo Info | Photo #: Up or Downstream: Rt or Lt bank: Bearing: GPS point: Height of Camera: Compass reading: | Photo #: Up or Downstream: Rt or Lt bank: Bearing: GPS point: Height of Camera: Compass reading: | Photo #: Up or Downstream: Rt or Lt bank: Bearing: GPS point: Height of Camera: Compass reading: | Photo #: Up or Downstream: Rt or Lt bank: Bearing: GPS point: Height of Camera: Compass reading: |
| Notes | EPA Habitat Score: _____ | | | | |
| | NRCS Habitat Score: _____ Is the stream on the 303(d) list? No Yes - Which criteria were violated? _____ Designated Use: _____ | | | | |

* = Right and left are determined by looking upstream.

**= Primary: Interstate, state highways, main county roads; Secondary: smaller county and unpaved roads.



US Army Corps of Engineers

SAJ-2006-4624 (IP-DEB)

FDOT/ SR79, Steelfield Road to SR20

List of other aquatic species observed, including invasive species, and their abundance:

Explain/describe any deviations from protocol:

Include sketch map, using back of page if necessary. Include north arrow, flow directions, label any locations where listed species were collected, indicate and label any unique characteristics or instream structures.



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SAJ-2006-4624 (IP-DEB)

FDOT/ SR79, Steelfield Road to SR20

Sheet # 40 of 41 April 17, 2007

ACF Freshwater Mussels

page ___ of ___

Field Number: _____

Date: _____

County: _____

Locality: _____

Surveyors: _____

Native Species

Unionidae

| Live | Shell | Live | Shell |
|-------|-----------------------------------------------------------|-------|-------------------------------|
| _____ | _____ | _____ | _____ |
| | <i>Alasmidonta triangulata</i> | | <i>Pleurobema pyriforme</i> |
| _____ | <i>Amblema</i> | | |
| | <i>nelserii</i> | | <i>Pyganodon cataracta</i> |
| _____ | <i>Anodonta heardi</i> | | <i>Pyganodon grandis</i> |
| _____ | <i>Anodontoides radiatus</i> | | <i>Quadrula infucata</i> |
| _____ | <i>Elliptio arctata</i> | | <i>Strophitus subvexus</i> |
| _____ | <i>Elliptio chipolaensis</i> | | <i>Toxolasma paulus</i> |
| _____ | <i>Elliptio</i> | | |
| | <i>complanata</i> | | <i>Uniomerus carolinianus</i> |
| _____ | <i>Elliptio crassidens</i> | | <i>Utterbackia imbecillis</i> |
| _____ | <i>Elliptio fraterna</i> | | <i>Utterbackia peggyae</i> |
| _____ | <i>Elliptio icterina</i> | | |
| _____ | <i>Elliptio nigella</i> | | <i>Villosa lienosa</i> |
| _____ | <i>Elliptio purpurella</i> | | <i>Villosa vibex</i> |
| _____ | <i>Elliptoldeus sloatianus</i> | | <i>Villosa villosa</i> |
| _____ | <i>Glebula rotundata</i> | | |
| _____ | <i>Lampsilis binominata</i> | | |
| _____ | <i>Lampsilis straminea claibornensis</i> | | |
| _____ | <i>Lampsills subangulata (Hamiota subangulata)</i> | | |
| _____ | <i>Lampsilis teres</i> | | |
| _____ | <i>Lasmigona subviridis</i> | | |
| _____ | <i>Medionidus penicillatus</i> | | |
| _____ | <i>Megaloniaias</i> | | |
| _____ | <i>nervosa</i> | | |

Introduced Species

Corbiculidae

_____ *Corbicula fluminea*



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