Florida Department of Environmental Protection
Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

April 8, 2011

Mr. Daniel Van Nostrand
Ecological Resource Consultants, Inc.
100 Amar Place
Panama City Beach, FL 32413

Dear Mr. Van Nostrand:

re. Permit # 227473-001 (modification -011), Bay County
Breakfast Point Mitigation Bank

The request to modify this permit has been received and reviewed by Department staff. The modification is to expand the mitigation service area, adjust the mapping and description of the target ecological communities, re-assess the credit evaluation by the Uniform Mitigation Assessment Methodology (UMAM – Rule 62-345, F.A.C.), and update conditions regarding construction, success criteria and schedules. Because this major modification revises most of the permit figures, specific conditions and attachments, it will be duly noticed and the attached revised permit will replace the original permit.

Background:
The project was initially issued as a separate mitigation component (Appendix A) of St. Joe Company's Department-authorized Ecosystem Management Agreement (EMA) for Bay and Walton Counties, effective October 11, 2004, and the federal Regional General Permit (RGP)(SAJ-2004-1861). Though incorporated in these documents, the project was provided the separate permit tracking number referenced above and was required to meet the provisions of Section 373.4136, Florida Statutes and Chapter 62-342, F.A.C. for the implementation and operation of a mitigation bank. However, because the mitigation bank was authorized for use only within the geographic boundaries of the EMA/RGP, its review and assessment were somewhat specialized within those parameters. The modification request is to separate the mitigation bank permit from the EMA agreement (with a corresponding EMA amendment) for the purpose of expanding the service area and allowing its use for impact permits not associated with the EMA/RGP. The assessment of this modification also included the remapping of native communities and assessment areas to correct some errors in the initial mapping, and a determination of the amount of mitigation credit through the application of UMAM.

Native Communities and Conditions:
The site consists of a ~5,040 ac. parcel (divided into four phases) in Bay County situated in a low-lying peninsula extending north into the West Bay portion of St. Andrews Bay (HUC 03140101). The site drains east, north, and west into West Bay through bayous and marsh shoreline. Its southern boundary connection to the mainland is adjacent to silviculture land and residential development areas as shown in Figure 1 of the attached permit.

The native communities are described below and shown in Figure 4 of the attached permit. The southern area (mostly in Phase IV) is typical of northwest Florida lowlands with sandy soils and oligotrophic, seepage hydrology. The peninsula area is a more dynamic and mosaic mix of flatwoods, basins, and cypress depressions with coastal influence.

For the purpose of credit assessment, the communities on this site are described as: mesic flatwoods, wet prairie/wet flatwoods, cypress/mixed forested, coastal flatwoods, cypress depressions, and coastal basin marsh. These communities were further divided into planted or non-planted (with commercial slash pine) assessment areas, based on their condition in 2004 when the original permit was issued. In addition to the pine planting, which typically included bedding, there has been a significant history of cypress harvest at the site.

Anticipated Results:
The mitigation plan has not significantly changed since initial permitting. Community enhancements focus on the elimination of pine plantations by removal of most of the slash pine, breaking up the bedding and reduction of the overgrown shrub layer by mechanical treatments and a rigorous fire management program. Much of the initial vegetation reduction has been completed in Phases 1 and 2 of the bank; however, the UMAM assessment assumes the "current condition" present at the time of initial permitting and as apparent in portions of Phases 3 and 4. The initial mechanical treatment of pine and shrubs along with prescribed burns have had good results, with monitoring showing trending toward target communities.

The community names and configurations have changed from the original permit based, in part, on monitoring data collected since activities have begun and on reference sites. With the revised descriptions and additional data, the interim and final success criteria have also been revised.

Permit Modification
Breakfast Point Mitigation Bank
Permit Modification #227473-011

Credit assessment:
The UMAM analysis resulted in a total potential of 1,011.28 credits that are allocated as: 301.88 Wet Prairie/Wet Flatwoods credits, 272.03 Cypress/Mixed Forested credits, and 437.37 Coastal Flatwoods credits. The release schedule of the permit has been changed to account for the revised credit types and numbers, but the milestones and percentages are the same.

Service Area:
The mitigation service area (MSA) for the Breakfast Point Mitigation Bank includes portions of Bay, Calhoun, and Gulf Counties north and south of the Intracoastal Waterway and within the St. Andrews Bay Watershed as depicted on Figure 2. The MSA reflects the Corps of Engineers MSA adopted on November 19, 2009, and is generally bounded by sub-watershed or ecoregion boundaries within the St. Andrews Bay Hydrologic Unit Codes (HUC). The northern boundary of the service area principally excludes the sandhill ecoregion provinces. However, coastal plain planted pine or fire suppressed wet prairie and cypress or mixed forest are common throughout the service area, including the site of another proposed Ecoregion Management Area north of West Bay.

Notice:
This modification and permit can be viewed at the EMA website: http://www.dep.state.fl.us/northwest/StJoeEMA/joeema.htm The Department reviewed the major modification as a stand-alone permit. It is the Department's intent to issue this permit modification pursuant to the requirements of Sections 373.4135 and 373.4136, F.S. and Rules 62-342, F.A.C and 62.345, F.A.C. By copy of this letter and attached permit, we are notifying interested parties of the modification. However, the Department has determined that the proposed activity, because of its size, potential effect on the environment or the public, controversial nature, or location, is likely to have a heightened public concern or likelihood of request for administrative proceedings. Therefore, pursuant to Section 403.815 F.S. and 62-312.060(14) F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Permit Modification. The notice is required to be published one time within 30 days, in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place and all counties within the mitigation service area. The applicant shall provide proof of publication to:

Department of Environmental Protection
Bureau of Submerged Land and Environmental Resources
2600 Blair Stone Road, MS 2500
Tallahassee, Florida 32399

The proof of publication shall be provided to the above address within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time shall be grounds for denial of the permit.

Sincerely,

John A. Coates, P.E.
Deputy Director
Division of Water Resource Management

Attachments: Notice, Permit with Figures and Attachments

cc (by email):
Thomas Estes, St. Joe Company
Andy Joslyn, DEP NW District Office
Duncan Cairns, Northwest Florida Water Management District
Jon Griffin, U. S. Army Corps of Engineers, Jacksonville
Ted Martin, US Fish & Wildlife Service, Panama City
Ted Hoehn, FFWCC, Tallahassee
Mike Dentzau, BDI, Inc.

CERTIFIED MAIL NUMBER
RETURN RECEIPT REQUESTED

State of Florida
Department of Environmental Protection
NOTICE OF PERMIT MODIFICATION

The Department of Environmental Protection gives notice of its issuance of a major modification of wetland resource/mitigation bank permit for the Breakfast Point Mitigation Bank permit (#0227473-001) issued to St. Joe Company, c/o Mr. Daniel Van Nostrand, authorized agent, Ecological Resource Consultants, Inc., 100 Amar Place, Panama City Beach, FL, 32413. The project includes the restoration, enhancement, and preservation of ecological communities described in the permit as Wet Prairie/Wet Flatwoods, Cypress/Mixed Forest, Coastal Flatwoods, Cypress Depression, Coastal Basin Marsh, and Mesic Flatwoods. These community types are variations of the Florida Natural Areas Inventory (FNAI), 2009 communities Wet Prairie/Seepage Slope, Wet Flatwoods, Basin Swamp, Basin Marsh, Dome Swamp, and Mesic Flatwoods and are roughly equivalent to FLUCCS codes 411, 626, 630, 641, 642, and 643. BPMB is intended to be used as mitigation for future unavoidable impacts to wetlands typical of these habitats within the mitigation service area (MSA). Restoration and enhancement will be accomplished by replacing and maintaining culverts, installing ditch blocks and low water crossings, reducing woody shrubs and planted pine density, decreasing bedding impacts, and implementing a long-term management program including frequent prescribed burns. The mitigation was assessed using the Uniform Mitigation Assessment Method (UMAM) (Chapter 62-345, F.A.C.) as having a potential 1,011.28 total credits that are allocated as 301.88 Wet Prairie/Wet Flatwoods credits, 272.03 Cypress/Mixed Forested credits, and 437.37 Coastal Flatwoods credits.

The 5,040 acre site is located in Sections 11-15, 23, and 24 of Township 3S, Ranges 16W and Sections 7, 8, 17-21, and 28 of Township 6S, Range 15W in Bay County, Florida. The BPMB is located north of Panama City Beach within the West Bay portion of St. Andrews Bay. Its mitigation service area (MSA) incorporates portions of Bay, Gulf and Calhoun Counties.

A person whose substantial interests are affected by the Department's permitting decision may petition for an administrative proceeding (hearing) in accordance with Sections 120.569 and 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000, within 21 days of publication of this notice. Petitioner shall

mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Sections 120.569 and 120.57, Florida Statutes.

The Petition shall contain the following information: (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is located; (b) A statement of how and when each petitioner received notice of the Department's action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action (changes to the conditions placed on this permit); (d) A statement of the material facts disputed by Petitioner, if any; (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action (changes to the conditions placed on this permit); (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action (changes to the conditions placed on this permit); and (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action.

Under rule 62-110.106(4), F.A.C, a person whose substantial interests are affected by the Department's action may also request an extension of time to file a petition for an administrative hearing. The Department may, for good cause shown, grant the request for an extension of time. Requests for extension of time must be filed with the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, before the petition deadline. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon. If a request is filed late, the Department may still grant it upon a motion by the requesting party showing that the failure to file a request for an extension of time before the deadline was the result of excusable neglect.

Persons whose substantial interests will be affected by the permit have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 21 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Sections 120.569 and 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Mediation is not available.

Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard, Jr.
Secretary

WETLAND RESOURCE/MITIGATION BANK PERMIT

Permit 0227473-001, issued 10/11/04
The St. Joe Company
c/o Thomas Estes
133 S. Watersound Parkway
Panama City Beach, FL 32413

Project: Breakfast Point Mitigation Bank
Modification Number: 0227473-011
Modification Date: April 8, 2011
Expiration Date: Perpetual
County: Bay

This permit is issued under the authority of Part IV of Chapter 373, F.S., and Chapter 62-342, Florida Administrative Code (F.A.C.). The activity is not exempt from the requirement to obtain this mitigation bank/wetland resource permit. Pursuant to operating agreements executed between the Department and the Water Management Districts, as referenced in Chapter 62-113, F.A.C., the Department is responsible for reviewing and taking final agency action on this activity.

This permit also constitutes certification of compliance with water quality standards under Section 401 of the Clean Water Act, 33 U.S.C. 1341, and a finding of consistency with Florida's Coastal Zone Management Program, as required by Section 307 of the Coastal Management Act.

A copy of this authorization also has been sent to the U.S. Army Corps of Engineers (USACOE) for review. The USACOE may require a separate permit. Failure to obtain this authorization prior to construction could subject you to enforcement action by that agency. You are hereby advised that authorizations also may be required by other federal, state, and local entities. This authorization does not relieve you from the requirements to obtain all other required permits and authorizations.

The above named permittee is hereby authorized to construct the work shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof. This permit is subject to the limits, conditions, and locations of work shown in the attached drawings, and is also subject to the attached General Conditions and Specific Conditions, which are a binding part of this permit. You are advised to read and understand these drawings and conditions prior to commencing the authorized activities, and to ensure the work is conducted in conformance with all the terms, conditions, and drawings. If you are utilizing a contractor, the contractor also should read and understand these drawings and

conditions prior to commencing the authorized activities. Failure to comply with all drawings and conditions shall constitute grounds for revocation of the permit and appropriate enforcement action. Operation of the facility is not authorized except when determined to be in conformance with all applicable rules and with the general and specific conditions of this permit, as specifically described below.

PROJECT DESCRIPTION:

This permit modification significantly alters the Breakfast Point Mitigation Bank (BPMB) authorized by Attachment A of the Ecosystem Management Agreement (EMA) for Bay and Walton Counties, effective October 11, 2004. As modified and incorporated herein, the project is on a 5,040 (+/-) acre parcel divided into four phases. The project includes the restoration, enhancement, and preservation of ecological communities described in the permit as Wet Prairie/Wet Flatwoods, Cypress/Mixed Forest, Coastal Flatwoods, Cypress Depression, Coastal Basin Marsh, and Mesic Flatwoods. These community types are variations of the Florida Natural Areas Inventory (FNAI), 2009 communities Wet Prairie/Seepage Slope, Wet Flatwoods, Basin Swamp, Basin Marsh, Dome Swamp, and Mesic Flatwoods and are roughly equivalent to FLUCCS codes 411, 626, 630, 641, 642, and 643. BPMB is intended to be used as mitigation for future unavoidable impacts to wetlands typical of these habitats within the mitigation service area (MSA). Restoration and enhancement will be accomplished by replacing and maintaining culverts, installing ditch blocks and low water crossings, reducing woody shrubs and planted pine density, decreasing bedding impacts, and implementing a long-term management program including frequent prescribed burns. The mitigation was assessed using the Uniform Mitigation Assessment Method (UMAM) (Chapter 62-345, F.A.C.) as having a potential 1,011.28 total credits that are allocated as 301.88 Wet Prairie/Wet Flatwoods credits, 272.03 Cypress/Mixed Forested credits, and 437.37 Coastal Flatwoods credits.

PROJECT LOCATION:

The 5,040 (+/-) acre BPMB is in Sections 11-15, 23, and 24 of Township 3S, Ranges 16W and Sections 7, 8, 17-21, and 28 of Township 6S, Range 15W in Bay County, Florida. The site is bounded on the east, north and west by the St. Andrews Bay and the south by private property that is primarily owned by St. Joe Company. The BPMB is located north of Panama City Beach and extends northward to West Bay (Figure 1). The shoreward edge of the BPMB consists of expansive salt marshes, tidal flats and pine islands that surround the peninsula. The BPMB is located within the St. Andrews Bay Watershed (HUC 03140101). Its mitigation service area (MSA) incorporates portions of Bay, Gulf and Calhoun Counties (Figure 2).

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to sections 403.141, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, are required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:

a. Have access to and copy any records that must be kept under conditions of the permit;
b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
c. Sample or monitor any substances or parameters at any location reasonable necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

a. A description of and cause of noncompliance; and
b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules. A reasonable time for compliance with a new or amended surface water quality standard, other than those standards addressed in rule 62-302.500, F.A.C., shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard.

11. This permit is transferable only upon Department approval in accordance with rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes Certification of Compliance with State Water Quality Standards (Section 401, PL 92-500).

14. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
c. Records of monitoring information shall include:

1. the date and georeferenced point of sampling or measurements;
2. the person responsible for performing the sampling or measurements;
3. the dates analyses were performed;
4. the person responsible for performing the analyses;
5. the analytical techniques or methods used; and
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: Please note that some specific conditions may further define or substitute for some of the requirements of the general conditions listed above.

Agency Provisions

1. The permittee is hereby advised that Florida law states: "No person shall commence any excavation, construction, or other activity involving the use of sovereign or other lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund or the Department of Environmental Protection under Chapter 253, until such person has received from the Board of Trustees of the Internal Improvement Trust Fund the required lease, license, easement, or other form of consent authorizing the proposed use." Pursuant to Florida Administrative Code Rule 18-14, if such work is done without consent, or if a person otherwise damages state land or products of state land, the Board of Trustees may levy administrative fines of up to $10,000 per offense.

2. If historical or archaeological artifacts are discovered at any time within the project site the permittee shall immediately notify the Bureau of Historic Preservation at (800) 847-7278, Division of Historical Resources, R. A. Gray Building, 500 S. Bronough St., Tallahassee, Florida 32399-0250.

3. Unless otherwise specified, all reports, notices and other information required for this permit shall be submitted to the Florida Department of Environmental Protection, Office of Submerged Lands and Environmental Resources, MS 2500, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

4. This mitigation bank permit shall automatically expire five years from the date of issuance if the permittee has not recorded a conservation easement in accordance with the permit and Rule 62-342.750 (2) F.A.C. Except as provided above, this mitigation bank permit shall be perpetual unless revoked or modified.

Commencement Requirements

5. At least 48 hours prior to commencement of the construction authorized by this permit, the permittee shall notify the Department in writing of this commencement.

6. Project Oversight. Prior to commencement of any construction activities, the permittee shall retain a Qualified Mitigation Supervisor (QMS) (a person or persons) to oversee all aspects of mitigation bank site implementation, management, monitoring, and corrective actions in this permit until final success criteria are met and a long-term management entity is identified.

a. Although the permittee will have the ultimate responsibility, the QMS shall have the contractual obligation to ensure that the mitigation bank work is conducted in accordance with the permit.

b. The QMS team will be lead by a division of the permittee company, St. Joe Ecological Services, in consultation with the St. Joe Timberlands division and an ecological consulting firm. St. Joe Timberlands and St. Joe Ecological Services include certified foresters and certified wildlife biologists. Within 30 days of issuance of the modified permit, the permittee shall submit the names, responsibilities, and qualifications of the QMS team members and lead contact person retained to oversee the mitigation work, along with documentation that the individuals are authorized and qualified to oversee this work. The QMS team will not be authorized without the Department's written approval.

c. Within 30 days of the discharge of any approved QMS member, the permittee shall submit to the Department for its review the name and supporting documentation of an alternative.

d. The permittee shall have the approved qualified QMS team review the conditions of this permit that pertain to environmental improvement. The purpose of this review is to ascertain whether any criteria need to be modified to ensure ecological success. If the Department concurs that any proposed modifications would improve the likelihood of mitigation success, the permittee shall submit the modification request to the Department for processing.

7. Protection and Preservation. Prior to construction or release of credits, the Breakfast Point Mitigation Bank property, or phase thereof, shall be preserved and protected in accordance with a conservation easement (CE) granted to the Department of Environmental Protection and recorded in the Public Records of Bay County. Conservation easements have been recorded for Phases 1 and 2. Upon commencement of Phase 3 and 4, conservation easements will be recorded for these phases.

After recording the CE, the permittee shall also provide the following:

a. A title insurance policy for the easement updated to the date of conveyance.
b. Subordination, release, or joinder agreements for any lien or title exception on the property, as identified by the Title Commitment, unless the Department determines that such lien or exception does not adversely affect the ecological viability of the Bank.
c. A survey of the conservation easement signed by a Florida registered land surveyor.
d. A clerk-of-the-court certified copy of the conservation easement.

8. Security and Hunting. Prior to credit release, the site shall be secured at all entrances with gates and the boundary of the site shall be marked with conservation easement signs. Signs shall indicate the project name and DEP and Corps permit numbers, as detailed in Attachment A. The permittee will be responsible for all site maintenance and monitoring. The permittee shall approve and be responsible for any use of the site for hunting purposes, and such purposes must follow the restrictions provided in the security and hunting plan (Attachment A). All vehicular access is limited to roads, except as required for completion of permitted restoration and/or enhancement activities.

9. Financial Assurance. Prior to construction or release of credits for the bank or Phase thereof, the permittee shall provide the Department with the updated financial responsibility mechanisms required by Rule 62-342.700 F.A.C. For each phase, the permittee shall secure financial assurance for construction activities, monitoring, maintenance and reporting prior to success, and for long-term management activities after the bank has reached success.

a. The permittee shall establish the financial assurance for the construction and implementation in the form of a performance bond payable into a contemporaneously established Standby Trust Account. The amount of the bond is based on the 110% of the estimated costs for construction, monitoring and maintenance prior to success. The permittee may request a partial reduction in the amount of the implementation assurance after the successful completion of significant mitigation activities and an updated cost estimate. The permittee may be released from its implementation financial assurance when the bank or phase has reached success and the long-term management trust has been funded.

b. The permittee shall establish the financial assurance for long-term management in the form of a bond together with the establishment of a standby trust to receive payments for long-term management. It is anticipated that a portion of credit proceeds shall be placed in the trust, but, regardless of sales, the long-term management trust fund shall be fully funded for Phases 1 and 2 by January 2016 or within 5 years of phase initiation. The permittee may request a reduction in the bond as the trust becomes funded in cash.

c. All cost-estimates shall be reviewed and appropriate financial responsibility instrument adjustments shall be conducted every two years in accordance with Rule 62-342.700 (11) F.A.C. and prior to final credit release.

d. The Department may draw upon the financial mechanisms required for the bank when the permittee has materially failed to comply with the terms and conditions of the permit and continues to be in noncompliance after thirty (30) days written notice has been provided to the permittee.

e. The interest earned from the principal deposited in the perpetual management trust may be withdrawn for use by the permittee or Department-authorized operating entity for long-term management purposes once the mitigation bank has been determined to have attained success criteria and received the final credit release. Disbursement shall be made by the trustee at the written direction of the Department in accordance with the trust agreement.

Mitigation Activities

Existing plant communities are shown in Figures 4A and 4B and the following table, are based on site conditions at the time of permitting. Habitat enhancement relies on the successful completion of the mitigation plan, as depicted in Figure 5 and the following conditions. The target communities are shown on Figures 6A, 6B and 7, and described in Attachment C.

Plant Community	Phase 1 Acreages	Phase 2 Acreages	Phase 3 Acreages	Phase 4 Acreages	Total Acreages for PC
Coastal Basin Marsh (non-planted)	2.50	340.43	92.75	0.00	435.68
Cypress Depression-planted	30.68	43.16	0.00	19.22	93.06
Cypress Depression-non-planted	1.11	40.31	0.00	36.26	77.67
Cypress/Mixed Forested planted	279.20	0.00	1.57	0.00	280.77
Cypress/Mixed Forested nonplanted	161.10	0.00	0.68	0.04	161.82
Coastal Flatwoods planted	526.48	1613.37	584.94	0.00	2724.80
Coastal Flatwoods non-planted	74.87	67.58	17.46	1.25	161.16
Wet Prairie/ Flatwoods - planted	59.42	0.00	0.00	155.87	215.29
Mesic Flatwoods planted	120.73	362.39	95.64	162.80	741.56
Mesic Flatwoods non-planted	11.66	16.22	26.88	0.03	54.79
ROAD	20.02	47.68	13.03	9.67	90.40
TOTALS	***1,287.78***	***2,531.14***	***832.94***	***385.13***	***5,037.00***

10. Community restoration activities are as follows:

    a. Pine and Bedding Removal. Within the bank there are approximately 4,055 acres of upland and wetland slash pine (*Pinus elliottii*) plantation as shown in Figures 4a and 4b. Portions of these plantations have been harvested in Phases 1, 2, and 4. In remaining planted stands, the slash pine shall be thinned to less than 100 trees/ac. in a manner that is consistent with "Silviculture Best Management Practices for Florida", 1993, Florida Department of Agriculture and Consumer Services, 98 pp., herein referenced as "Silviculture BMPs". Pine harvesting will be conducted, under the supervision of the QMS team, in a manner such that mechanical work and skidder trails will be perpendicular to bedding rows in order to reduce bed height and break up any drainage effect of the furrows with only temporary effect on groundcover. The initial pine thinning allows for adequate tree density to provide enough needle-cast fuel for subsequent fires. Ultimate target density (as indicated in Specific Condition 23) may require additional thinning using hand-felling, girdling techniques or during the brush reduction detailed below rather than by a separate mechanical harvest. Harvesting will be documented with ground and/or aerial photographs, and reported in the semi-annual status reports.

    b. Woody Vegetation Reduction. After harvest activities, coverage of woody shrubs and remaining slash pine will be reduced with prescribed fire (as described in Specific Condition 12) and mechanical means in Wet Prairie/Wet Flatwoods, Coastal Flatwoods, Coastal Basin Marsh, and Mesic Flatwoods at the discretion and oversight of the QMS team and certified burn specialist. Fire will be allowed to burn into the Cypress/Mixed Forest and Cypress Depressions; however, it is not expected that these communities will burn on frequent intervals. Mechanical clearing will be used to promote herbaceous cover and to carry fire without crown damage as directed by the QMS where prescribed burning alone is not likely to achieve success. For the purposes of this permit, "woody shrubs" for shrub reduction includes those species, typically reduced by fire to coppice, such as titi (*Cyrilla racemifolia, Cliftonia monophylla*), gallberry (*Ilex glabra*), fetterbush (*Leucothoe racemosa, Lyonia* spp.), yaupon (*Ilex vomitoria*) and wax myrtle (*Myrica cerifera*) that tend to become dominant and reduce the diversity of herbaceous species and desirable trees and shrubs in a fire suppressed system. The following types of mechanical treatment will be employed:
        i. *Mowing / "bush hogging"* will primarily be used to maintain roads;
        ii. *Mulching & Chipping/ "Gyrotracking"* will be used along roads to reduce fire suppressed woody shrubs, especially titi, that has reached sub-canopy height;

iii. *Roller-chopping/ "hydro-axing"* will be used where the size and density of the trees and shrubs can be chopped without significant sub-surface soil disturbance such as tip-up mounds (generally <15cm stems and < 500 tress/ac);

iv. *Walkdown* will be used in bedded areas with little groundcover, and will be conducted to decrease bedding.

Mechanical treatments will be documented by ground and/or aerial photography, and reported in the semi-annual status reports.

11. Exotic and nuisance vegetation control. A survey for exotic coverage shall be completed following harvest, mechanical treatment and the first prescribed fire. Any areas of infestation by species listed by the Florida Exotic Pest Plant Council (FLEPPC), (Attachment B) shall be GPS-located and treated under the direction of the QMS by appropriate herbicide application and/or physical removal. The results of the survey and treatment shall be documented and submitted to the Department with the semi-annual status report.

12. Fire Management Plan. Prescribed fire shall be implemented in accordance with this condition and the Fire Management Plan (Attachment D) to attain the proposed enhancement and as a long-term management tool to sustain the communities and ecological function. The site has initially been divided into 10 burn units determined using existing roads/trails (Figure D1). All Units will be burned as frequently as fuel and weather conditions allow, but the Department must be contacted if a burn is not initiated within 3 years. Fire will burn into all wetland systems when conditions allow and when it would not result in a catastrophic situation. Each prescribed burn will be supervised by a certified burn specialist. In the semi-annual status report following each prescribed burn conducted at the bank, the permittee shall submit documentation, signed by the QMS and certified burn specialist, providing a summary of the unit(s) and acres treated and an assessment of burn success, including photographs. A successful burn will have approximately 80% cover or more within the Wet Prairie/Wet Flatwoods, Coastal Flatwoods, Coastal Basin Marsh, and Mesic Flatwoods. The burn will be assessed using GPS points and ground and/or aerial photography.

13. Supplementary Planting. Longleaf pine (*Pinus palustris)* will be planted in areas where it was likely to have historically occurred but was replaced by slash pine plantation. These areas are depicted on Figure 5 and were based on elevation contours and soil types; however, field verification of planting areas may indicate some inappropriate areas. Any areas not planted will be reported by the QMS. In suitable areas, longleaf pines will be planted at a density of 150-400 trees per acre at the next suitable planting season after harvest per phase. Introduction of longleaf pine is to provide for a mix of species typical of historic conditions. If required, the longleaf pine may be thinned to meet the target stems per acre.

14. Hydrologic Enhancements. Hydrologic enhancement include the installation of 2 water control culverts, replacement/maintenance of 11 culverts, installation of 8 hardened low water crossings, and installation of two ditch blocks in accordance with the construction drawings and the Hydrologic Restoration Plan (Attachment E).

a. Low Water Crossings: Eight low-water crossings will replace existing culverts and trail roads that were constructed through wetlands. The existing culverts and fill roads (~12-20 ft. wide) shall be excavated to ~6-8 inches below grade, and the depression lined by stabilizing fabric and rubble stone to match the existing, natural grade on either side of the road. One existing low water crossing in phase 2 will be repaired/maintained as needed.
b. Water Control Culverts: Three new water control culverts will be installed on the western portion of the site (Phases 2) to divert water from the north side of the existing trail road to the south side in an effort to restore historical basin connections.
c. Culvert Maintenance/Replacement: Eleven culverts throughout the site will either be replaced or maintained. The invert elevations of the replaced culverts will be maintained to avoid flooding.
d. Ditch Blocks – Two ditch blocks will be installed on the northwestern portion of the site in Phase 2 to block water from passing through the ditch and discharging off-site. An additional ditch block will be installed along the north-south road in the northeastern portion of Phase 2 Any fill necessary for the ditch fill shall be construction grade clean sand material void of exotic vegetation and deleterious substances.
e. Turbidity measures: Best management practices for the control of turbidity and erosion shall be implemented during all work on site. All construction activities shall be conducted in accordance with state and federal NPDES regulations as set forth in Section 403.0885, F.S., Chapter 62-621.300(4), F.A.C. and an approved Stormwater Pollution Prevention Plan (SWPPP). The graded areas shall be stabilized within 48 hours of attaining final grades and at any other time necessary to prevent erosion, siltation and turbid discharges.
f. Prior to credit release associated with this construction, the permittee shall submit as-built drawings and arrange a post-construction site visit that includes the Department, QMS, and any IRT members that are available to review the activities. The permittee shall submit a summary of the site visit with the annual progress report to facilitate future compliance reviews.

15. Work schedule. Restoration activities are ongoing within some phases, followed by continued monitoring and management until success. The following table shows the anticipated sequence and timing anticipated for each phased activity. Variation in this schedule may be authorized with concurrence of the Department upon written request from the permittee. Note: Phase 1 and 2 easements were recorded in 2006; Baseline monitoring was conducted on all phases and was submitted in January 2005 and has been conducted annually thereafter. The sequence of activities and dates provided are relative estimates to be used as guidelines. Variation in this schedule may be authorized with concurrence of the Department upon written request from the permittee.

Activity	Spec. Cond. #	Approx. Due Date from Phase Initiation
Record CE and Implement Security	7, 8	Initiation
Establishment of Financial Assurances	9	Initiation
Selection of Approved QMS	6	Initiation
Baseline Reporting	27, 29	Complete
Initial Harvesting and Mechanical	10a,b	1 year - 3 years*
Semi-Annual Inspection/Reporting	28	Every 6 months - perpetual
First Prescribed Fire	12	2 years - 3 years*
Hydrological Improvements	13	1 year - 2 years
Annual Monitoring and Reporting	27, 29	fall/winter
Exotic / Invasive Review	11	After harvest/fire - ongoing
Mechanical Preparation for Burn	10b	As needed
2nd Prescribed Fire	12	3-5 years*
Annual Monitoring / Reporting	27, 29	Annually
Mechanical maintenance (if necessary)	10b	3 years - 5 years*
3rd Prescribed Fire	12	4 years - 6 years*
Additional Annual Monitoring / Reporting until success per phase	27, 29	Annually (anticipate 5-8 years)
Long term management per SC 26 - Upon success determination & funding of trust; perpetual		

*Site will be burned whenever weather and fuel conditions allow (see Att. D)

Banking Operations

16. This permit authorizes the permittee to implement a mitigation bank. The permittee is obligated to perform certain actions described herein. Failure to timely and completely comply with all of the conditions of this permit may result in a revocation or suspension of the permit, and release and withdrawal of mitigation credits may be suspended. If the permittee has not attained a modification for final credit release within 10 years after each phase is initiated, or otherwise obtained a permit modification to revise the schedule, figures, criteria, credit assessment, or management to adjust for revised expectations, in accordance with the permit re-assessment in Specific Condition 20, any potential credits that have not been released shall be forfeited, and the annual monitoring (Specific Condition 27) discontinued.

17. As specified in Rule 62-342.470(4) F.A.C., if at any time the bank is not in material compliance with the terms of this permit, no mitigation credits may be withdrawn. Mitigation credits shall again be available for withdrawal if the permittee comes back into compliance.

18. Assessment of Credits. The total number of potential of credits was determined using the UMAM, with descriptions and calculations detailed in Attachments C. The 1,011.28 total potential credits for the bank are allocated as 301.88 Wet Prairie/Wet Flatwoods credits, 272.03 Cypress/Mixed Forested credits, and 437.37 Coastal Flatwoods credits. These credits will be released and withdrawn in accordance with Specific Conditions 20 and 21.

Before authorization of the BPMB, five DEP permits (#03-018839-001, #03-0190081-001, #03-0199808-004, #03-0201291-001, and #03-0215227-001) were issued with mitigation on the project site, as shown in Figures 8 and 9. This acreage was incorporated into the mitigation bank in a modification dated October 26, 2005, for management and success, but no credit was generated by these acres. The current UMAM assessment included the acreage in the assessment, but credits from those acres are deducted in the attached ledger (Attachment H). Figure 8 also shows a Management Exclusion Zone (to be used as a control area for academic or regulatory study) authorized in a March 25, 2008 permit modification.

19. Ledger. In order to track credit releases and withdrawals, a ledger shall be kept by both the permittee and the Department indicating all potential, released, withdrawn and available credits. The current modified ledger is attached as Attachment H and is based on the revised UMAM assessment described above.

20. Credit Release Schedule. Mitigation credits will be released for use according to the following Credit Release Schedule. The credit release timetable is an estimation only. All credit releases shall be allocated as Cypress/Mixed Forested, Coastal Flatwoods, and Wet Prairie/Wet Flatwoods credits according to the following table.

Release Activity	Special Condition	% Credits Released / Total	Phase 1			Phase 2			Phase 3			Phase 4		
Credit Type			Cy/F	CFW	WP/WF	Cy/F	CFW	WP/WF	Cy/F	CFW	WP/WF	Cy/F	CFW	WP/WF
Record Conservation Easement, Financial Assurances	7, 8, & 9	10% / 101.13	7.10	11.31	7.89	13.38	21.31	14.87	4.64	7.39	5.16	2.18	3.48	2.43
Logging, Selective Clearing, Brush Reduction, Exotic Control	10 & 11	20%/ 202.26	14.20	22.61	15.78	26.76	42.62	29.73	9.28	14.78	10.32	4.37	6.96	4.85
Prescribe Burn	12	15%/151.69	10.65	16.96	11.83	20.07	31.96	22.30	6.96	11.09	7.74	3.28	5.22	3.64
Hydrologic Improvements	13	5%/ 50.56	3.55	5.65	3.94	6.69	10.65	7.43	2.32	3.70	2.58	1.09	1.74	1.21
Performance Standards, Year 1 attained	24	10% / 101.13	7.10	11.31	7.89	13.38	21.31	14.87	4.64	7.39	5.16	2.18	3.48	2.43
Performance Standards, Year 2 attained	24	10% / 101.13	7.10	11.31	7.89	13.38	21.31	14.87	4.64	7.39	5.16	2.18	3.48	2.43
Performance Standards, Year 3 attained	24	10% / 101.13	7.10	11.31	7.89	13.38	21.31	14.87	4.64	7.39	5.16	2.18	3.48	2.43
Performance Standards, Year 4 attained	24	10% / 101.13	7.10	11.31	7.89	13.38	21.31	14.87	4.64	7.39	5.16	2.18	3.48	2.43
Performance Standards, Final attained	23	10% / 101.13	7.10	11.31	7.89	13.38	21.31	14.87	4.64	7.39	5.16	2.18	3.48	2.43
Total Credits	1011.28		70.99	113.06	78.88	133.79	213.08	148.66	46.42	73.92	51.58	21.84	34.79	24.27
Total Credits per Phase			262.93			495.53			171.92			80.90		

Note: The highlighted credits above have been released; see attached Ledger (Attachment H).

Upon completion of a credit release activity, the permittee may submit a minor modification request (with fee), along with supporting documentation, for the release of the appropriate number of credits. The Department shall review the documentation and perform a compliance review of the permit, prior to the issuance or denial of the minor modification to release credits. An updated ledger indicating the additional available credits shall be attached to the minor modification.

Prior to the modification request for the fourth interim credit release of any phase, the permittee shall meet with the Department to re-evaluate permit figures and criteria to determine if the phase/site is expected to attain success criteria in the allotted timeframe, and to determine the restoration requirements and schedule for the "Management Exclusion Area". Based on this evaluation, the permittee shall submit a modification request to the Department for any necessary figure, criteria, credit assessment or release schedule revisions prior to the release of additional credits.

21. Mitigation Credit Withdrawal. Withdrawal of the mitigation bank credits as mitigation for wetland impacts shall be accomplished though a minor modification of this permit. Modification requests for credit withdrawal shall not require a modification fee. Modification requests shall be made in writing to the Office of Submerged Lands and Environmental Resources in Tallahassee within 60 days of issuance of the permit or agency action requiring credits. Minor modification requests shall only be submitted by the bank permittee. The modification request shall include:

a. a complete list of all Department or NWFWMD (District) permits (or other applicable regulatory actions) that require mitigation credits from the Breakfast Point Mitigation Bank,
b. the permit number (or other regulatory action), issue date and agency contact,
c. an identification of the number and type of wetland credits required under each of these permits.

Minor modification approvals for credit withdrawal shall be issued only to the bank permittee. An updated mitigation bank credit ledger sheet shall be included by the Department as an attachment to each minor modification approval for credit withdrawal.

Impact permits issued under EMA/RGP Agreements shall have the number of required credits determined using the methods set forth in the EMA/RGP Agreements, and shall be identified on the state ledger (Attachment H) as an EMA/RGP project. Unless otherwise stipulated in the impact permits issued under EMA/RGP Agreements, for ledger tracking purposes, credits required for "high quality" (EMA1) or "unconverted" (EMA2) impacts will be debited for the state ledger from the Cypress/Mixed Forested credit type; credits required for "low quality" (EMA1) impacts will be debited from the Coastal Flatwoods credit type; credits required for "converted" (EMA2) impacts will be debited from the Wet Prairie/Flatwoods credit type. All other uses of BPMB credits will have their credit requirements determined by the methods required for the specific agency action (permit or consent order) requiring the credits, including UMAM.

22. Mitigation Service Area. The mitigation service area (MSA) is the geographic area within which adverse impacts may be offset by the bank. The MSA for the Breakfast Point Mitigation Bank includes portions of Bay, Calhoun, and Gulf Counties north and south of the Intracoastal Waterway and within the St. Andrews Bay Watershed as depicted on Figure 2. The MSA reflects the Corps of Engineers MSA adopted on November 19, 2009, and is generally bounded by sub-watershed or ecoregion boundaries within the St. Andrews Bay Hydrologic Unit Codes (HUC). MSA boundaries are available as a data layer upon request from the St. Joe Company or the Department or the Department (Northwest District Office) website. Credits may be

appropriate for use as mitigation for unavoidable impacts to wetlands typical of natural or disturbed communities as described in Attachment C. However all determinations of appropriateness are made by the impact reviewer on a case-by-case basis. Credits are not allowed for use outside of the MSA, except as stipulated in Sec. 373.4136(6)(d), F. S. Impacts within the range of Panama City crayfish (generally east of the bank site on the Panama City side of Hathaway Bridge) may require alternative or additional mitigation in accordance with guidance from Florida Fish and Wildlife Conservation Commission.

Success Criteria

23. Final Success. The overall goal of the mitigation bank is to reduce the planted pine and fire-suppressed plant communities shown in Figure 4 to their native condition, as described by FNAI and in Attachment C, as shown in Figures 6 and 7, and as documented by the criteria below. The bank, or phase thereof, will be deemed successful when all of the following criteria, in addition to the community descriptions in Attachment C, have been met for a period of at least one full year without intervention in the form of eradication of undesirable species, prescribed fire, or mechanical maintenance.

a. **Entire Site**:
   1) At least three successful prescribed burns have been completed in accordance with Specific Condition 12;
   2) Plants are reproducing naturally, either by normal or typical vegetative reproduction or through seedling establishment, growth, and survival;
   3) All wetland target communities shall meet wetland delineation criteria as defined by Ch. 62-340, F.A.C.;
   4) Coverage by category I and II invasive exotic plant species (pursuant to the most current FLEPPC list at www.fleppc.org - Attachment B is current list) shall not exceed 1% total coverage per acre;
   5) Nuisance species including, but not limited to *Typha, Rubus*, and vines such *Vitis* and *Smilax*, are <5% cover per acre (10% in uplands); and
   6) Vegetation species composition (per Attachment G and criteria below) and relative abundance and cover is consistent with or annually trending toward that of its reference FNAI community and appropriate community descriptions in Attachment C.

b. **Mesic Flatwoods** shall have:
   1) At least 30 native, non-canopy species per transect (including coppice shrubs);
   2) Less than 20% bare ground and leaf litter (combined);
   3) At least 60% relative cover with herbaceous species (less than 40% relative cover with woody shrubs);
   4) At least 80% shrubs reduced to coppice <2m in height;
   5) An average of 10-70 pine trees per acre;

c. **Coastal Flatwoods** shall have:
1) At least 10 native, non-canopy, wetland (FACW or OBL) species per transect (including coppice shrubs);
2) Less than 20% bare ground, leaf litter and water (combined);
3) At least 70% relative cover with herbaceous species (less than 30% relative cover with woody shrubs);
4) At least 80% shrubs reduced to coppice <2m in height;
5) Less than 30 trees per acre, excluding cypress; approximately 20% of this community type contains a canopy of greater than 30 trees per acre due to the reticulation of forested and herbaceous wetlands.

d. **Wet Prairie/Wet Flatwoods** shall have:
1) At least 40 native, non-canopy, wetland (FACW or OBL) species per transect (including coppice shrubs);
2) Less than 20% bare ground, leaf litter and water (combined);
3) At least 70% relative cover with herbaceous species (< 30% woody shrubs);
4) At least 80% shrubs reduced to coppice <2m in height;
5) An average of less than 30 trees per acre, excluding cypress;

e. **Coastal Basin Marsh**
1) 5 or more native wetland (FACW or OBL) species per transect;
2) At least 80% shrubs reduced to coppice <2m in height;
3) At least 60% relative cover with herbaceous species;
4) Less than 30 trees per acre; excluding cypress, tupelo, and pop ash.

f. **Cypress/Mixed Forested** shall have:
1) 10 or more native, non-canopy, wetland (FACW or OBL) species per transect (trees, shrubs, herbs combined);
2) An average of 10 or more trees per acre.

g. **Cypress Depression** shall have:
1) 10 or more native wetland (FACW or OBL) species per transect (trees, shrubs, herbs combined);
2) An average of more than approximately 10 trees per acre.

h. **Compliance:**
1) The permittee has conducted inspections, monitoring and management, including the appropriate schedule of prescribed burns, as defined in Specific Condition 12, and has submitted all required reports to the satisfaction of the Department;
2) All security measures are established and in working order; and
3) An updated long term management plan as defined in Specific Condition 26.c. and a long term management entity has been submitted and approved, and the long term management trust fund has been funded in compliance with Specific Condition 9.b.

i. **UMAM Assessment**: Using monitoring data and reports and in conjunction with the permittee and available members of the IRT, the Department shall inspect the site and conduct a UMAM analysis to ensure that all communities have reached, or are expected to reach and maintain, the "with mitigation" community descriptions in Attachment C and UMAM scores in Attachment C Table, under the permitted management requirements in Specific Condition 26.

24. Interim release criteria. Progressive environmental enhancement or trending toward success provides environmental lift for which credit may be released incrementally prior to achieving all the final success criteria. For any phase, credits will be released only after at least one year has passed since the previous interim release for the phase, and whenever inspection and representative monitoring data provided in Annual Reports indicate that the following criteria are met and are to be maintained under the required management plan:

a. Exotic species are maintained or trending towards 1% cover or less;
b. Harvesting and mechanical clearing was conducted (Specific Condition 10);
c. Prescribed fires are being conducted as required in Specific Condition 12;
d. Woody shrubs have been reduced and maintained in coppice;
e. Construction has been conducted in accordance with Specific Condition 14;
f. All communities are trending toward the descriptions in Attachment C as evidenced during inspection and in the qualitative transects;
g. There is a 10% decrease in bare ground/leaf litter/water from the previous year – or - it is approaching/attaining final success for the community;
h. There is a 10% increase in relative cover of herbaceous species from the previous year - or - it is approaching/attaining final success for the community;
i. There is a 10% increase in species richness from the previous year - or - it is approaching/attaining final success for the community;
j. To attain the third interim release criteria, at least two successful fires shall have been documented;
k. To attain the fourth interim release criteria, the Department shall re-assess and modify, as necessary, permit conditions and the "Management Exclusion Area" (Phase 4 only) restoration and schedule; and
l. The project is in compliance with the permit.

25. Turbidity Monitoring. Monitoring during construction is intended to detect turbidity in excess of state water quality standards pursuant to C. 62-302, F.A.C. Turbidity shall be measured with a portable turbidimeter daily within surface water adjacent to construction areas. The background site shall be placed in un-affected waters. Compliance sites shall be within 10 feet of the turbidity curtain, and within any visible plume. The permittee shall stop work and immediately notify the Department if turbidity levels within waters of the state exceed state water quality standards.

26. Adaptive Management and Maintenance. Monitoring data, observation and the QMS's professional judgment will dictate the type of management activity used in each ecological community to ensure long-term success. Additional brush reduction, exotic species treatment, vegetation seeding or planting, along with fire management, may be required to achieve and maintain success in perpetuity. At a minimum, the permittee shall conduct quarterly inspections of the property until criteria for the 3rd interim credit release is attained and semi-annual inspections thereafter, for the purpose of assessing and correcting the following management or maintenance needs:

a. Reporting and timely maintenance, restoration, stabilization or repair of any damaged structures, fencing, signage, equipment, roads, erosion or dumping areas identified in the inspections;
b. Conducting prescribed burns in accordance with the Specific Condition 12 at a frequency and season optimal to promote desirable vegetation and wildlife, with a minimum of one growing season burn every 3 years;
c. Conducting exotic and nuisance plant control, as necessary, to maintain success criteria and avoid infestation of these species;
d. Removing feral/exotic animals that threaten the mitigation success;
e. Prior to final release, the permittee shall prepare a Department-approved, updated, stand-alone management plan for long-term management to be used as enforceable conditions for the long-term manager. The permittee may not transfer management responsibility until the final success criteria are met, a long-term manager is approved by the Department, and the long-term trust fund is fully funded.

27. Monitoring. Qualitative and quantitative monitoring of vegetation and community structure shall be required until the bank is determined to have achieved the success criteria in Specific Condition 23. The Department has reviewed and approved the proposed monitoring plan in Attachment F.

28. Progress Reports. In January and July, the permittee shall submit semi-annual status reports containing the following information regarding the project:

a. Dates that permitted activities were begun and completed;
b. Brief description and extent of work completed since the previous report;
c. Drawings indicating areas of construction or management implementation;
d. A description of problems encountered and solutions undertaken;
e. Inspection dates and findings;
f. Site management tasks and assessment reports (harvest/mechanical treatment/ fire/exotic surveys) undertaken, including dates; and
g. A brief description of the work and/or site management the permittee anticipates commencing, continuing or completing in the next six months;
h. A qualitative assessment of each community.

29. Annual Reports. The Annual Report is a summary of the yearly monitoring for success and an assessment of the degree to which the bank is attaining success. This report shall be submitted after completion of the fall vegetation monitoring in accordance with Specific Condition 27. This report is due in January and shall be submitted annually until the Bank site has been determined to be successful. The Annual Report that requests a determination of final success in accordance with Specific Condition 23 shall also include the following information:

a. a summary of all previous Annual Reports, including timeline graphics;
b. documentation of how and when each success criterion was attained;
c. a notation of management problems, adaptations and notable successes;
d. a summary of compliance submittals and/or enforcement actions during the implementation of the bank; and
e. any other information helpful for the continued success of the mitigation.

The Report requesting the final success determination shall be submitted to both the Department and the long-term manager.

Notice of Rights

A person whose substantial interests are affected by the Department's action may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000. Petitions filed by the permittee and the parties listed below must be filed within 21 days of receipt of this letter. Petitioner shall mail a copy of the petition to the permittee at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

The Petition shall contain the following information:

(a) The name, address, and telephone number of each petitioner, the permittee's name and address, the Department Permit File Number and the county in which the project is proposed;
(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
(c) A statement of how each petitioner's substantial interests are affected by the Department's action; or proposed action;
(d) A statement of the material facts disputed by petitioner, if any;
(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

Under rule 62-110.106(4), F.A.C, a person whose substantial interests are affected by the Department's action may also request an extension of time to file a petition for an administrative hearing. The Department may, for good cause shown, grant the request for an extension of time. Requests for extension of time must be filed with the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, before the petition deadline. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon. If a request is filed late, the Department may still grant it upon a motion by the requesting party showing that the failure to file a request for an extension of time before the deadline was the result of excusable neglect.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this letter. Persons whose substantial interests will be affected by any decision of the Department with regard to the permit have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 21 days of receipt of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition, the attached permit modification will be finalized. Upon timely filing of a petition or a request for an extension of time this permit modification will not be effective until further Order of the Department.

Any party to this letter has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000; and by filing a copy with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Notice of Permit Modification is filed with the Clerk of the Department.

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List of Attachments:
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B – FLEPPC Species List
C – Community Targets & UMAM
D – Fire Management Plan
E – Hydrology Plan Engineer Figures
F – Monitoring Plan
G – Appropriate Species Lists
H – Credit Ledger
I - References

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

John A. Coates, P.E.
Deputy Director
Division of Water Resource Management

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies this **PERMIT** was mailed before the close of business on 4/8/11
(date)

FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to 120.52(7) F. S.,
with the designated Department Clerk, receipt of which is hereby acknowledged.

Clerk 4/8/11 Date

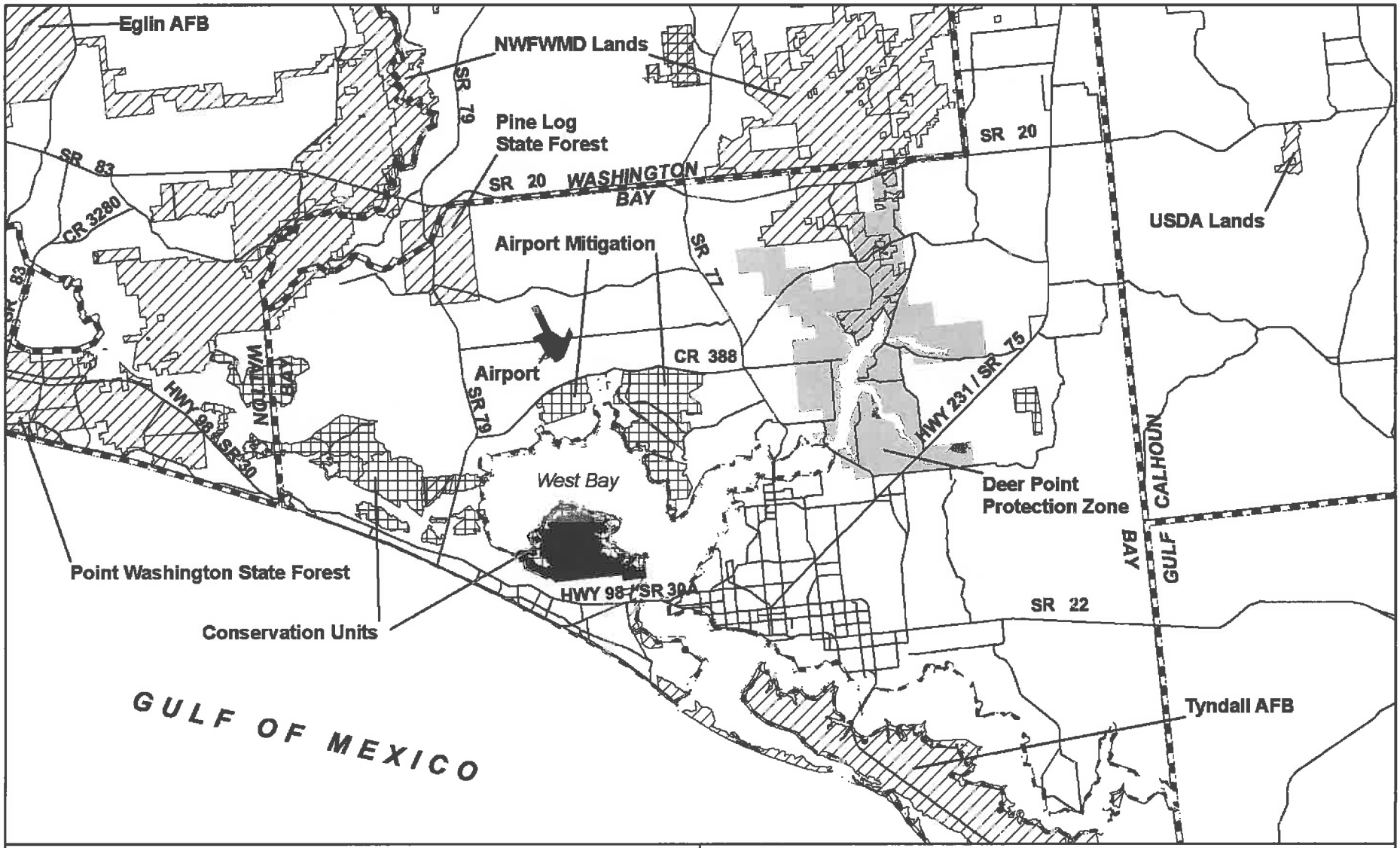
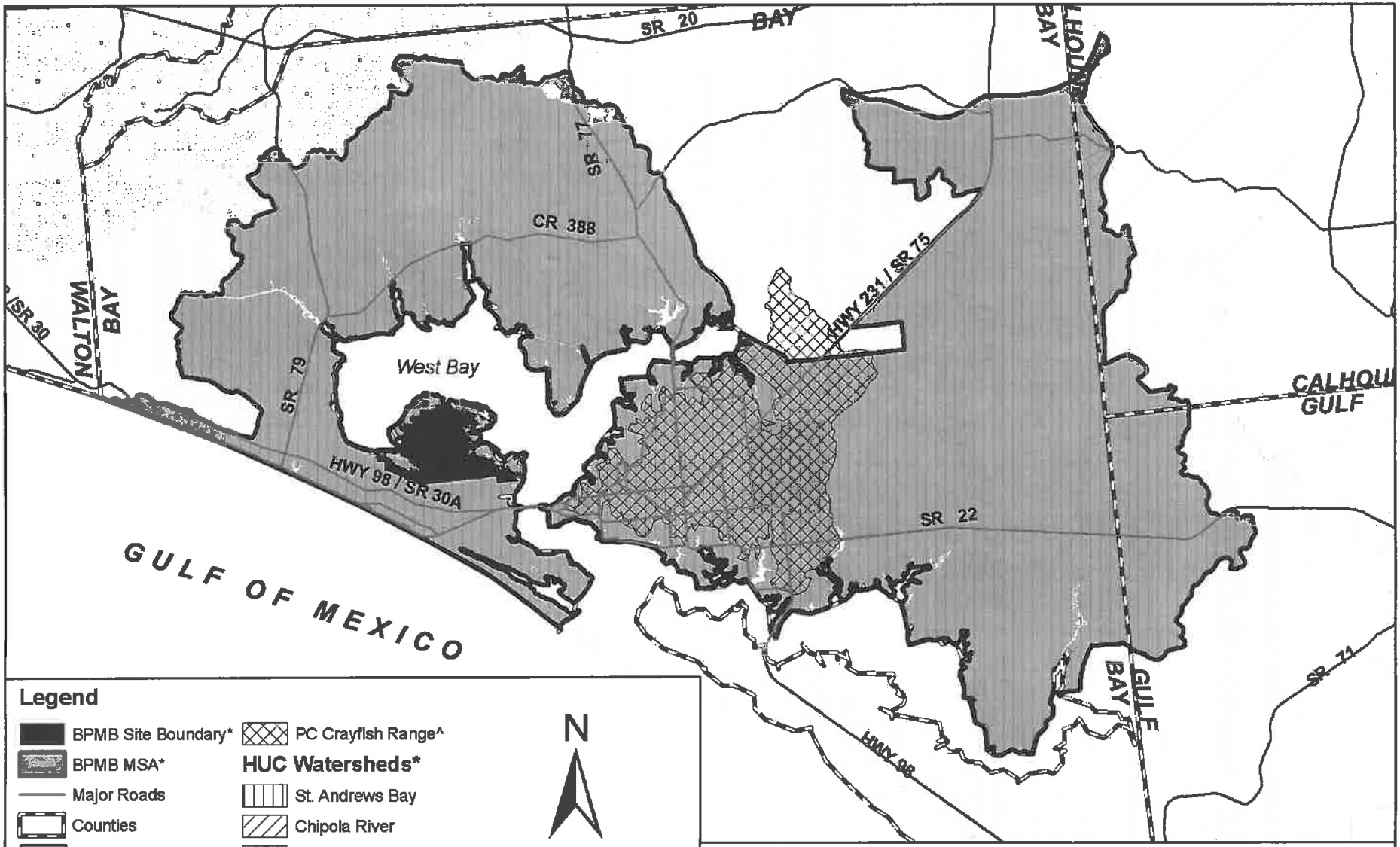


Figure 1: Location and Surrounding Land Use Map

Breakfast Point Mitigation Bank

erc Ecological Resource Consultants, Inc.

MKS 08.11.10
ERC #10-130



*Service area reflects Federally approved MSA which was generally based on USGS 12-digit watershed boundaries, EPA Ecoregion Level 4 data, and public lands. The individual bank boundary is available from St. Joe or FDEP at www.dep.state.fl.us.
^Although an impact may occur within the service area, this bank may not be appropriate for use as compensatory mitigation for the following: 1)Direct impacts to the Panama City Crayfish or 2) Impacts to the critical habitat of Federally listed species where that habitat is not found on the bank site

Figure 2: MSA Map

Breakfast Point Mitigation Bank

Ecological Resource Consultants, Inc.

dv 11.15.10
ERC #10-130

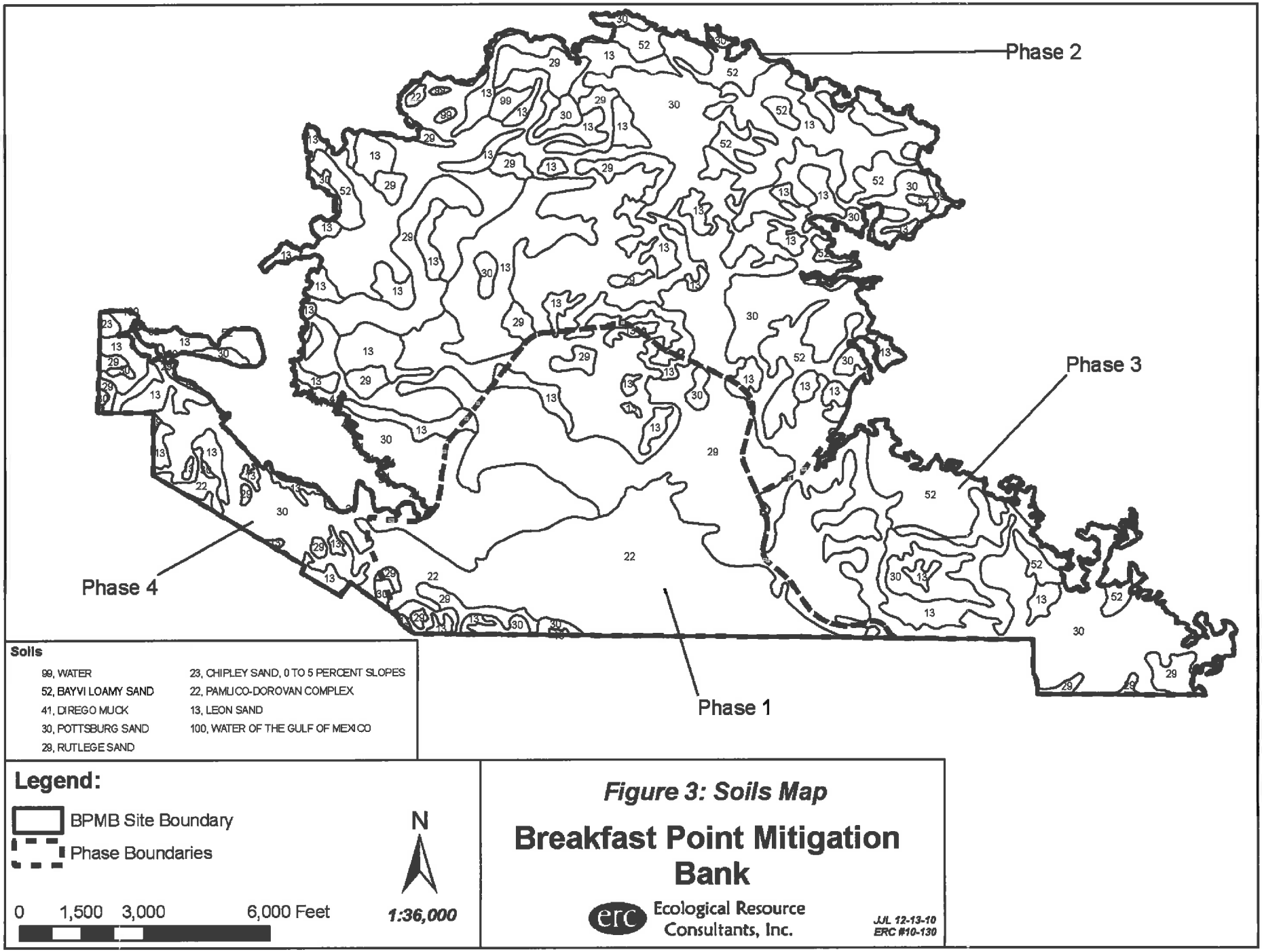
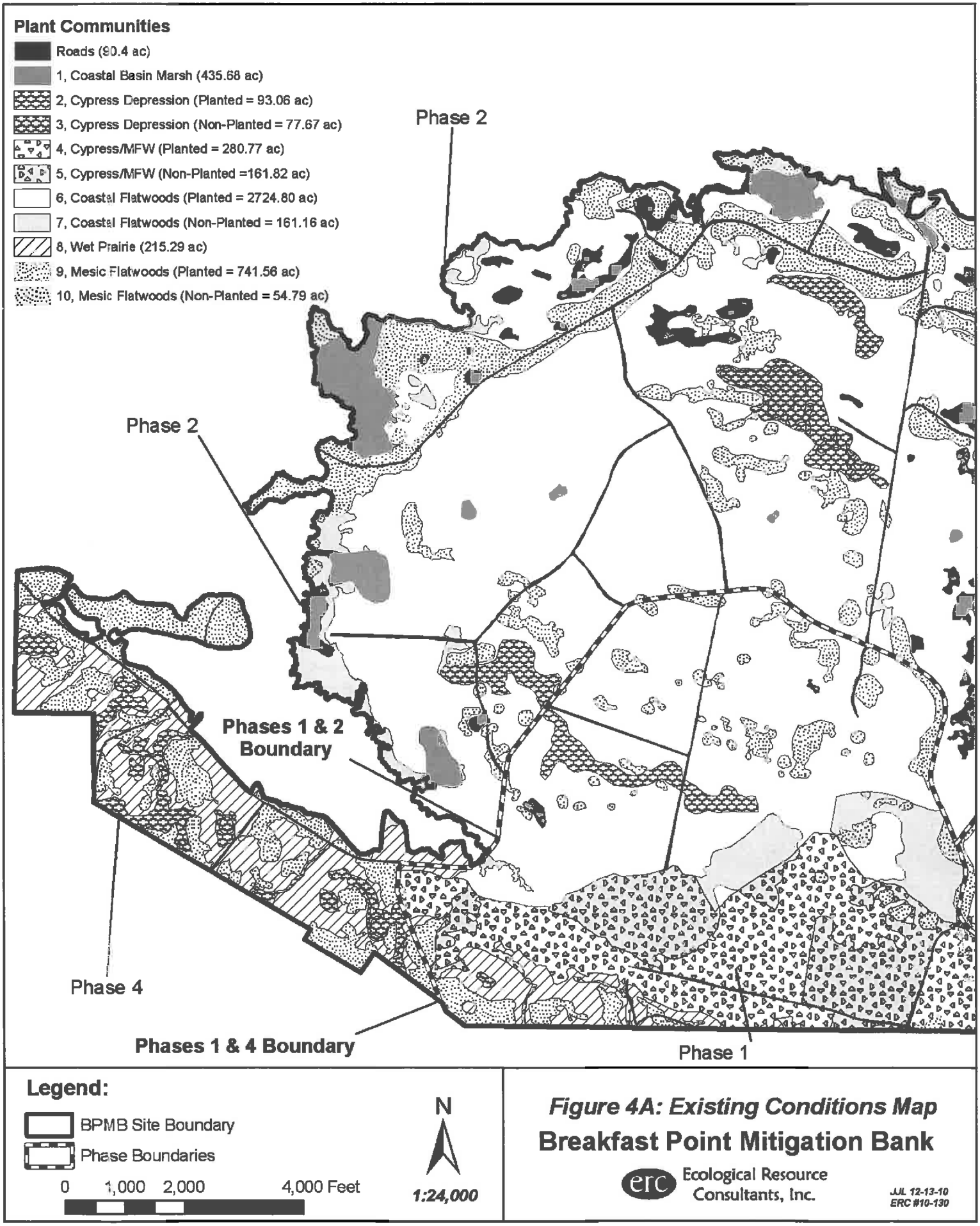


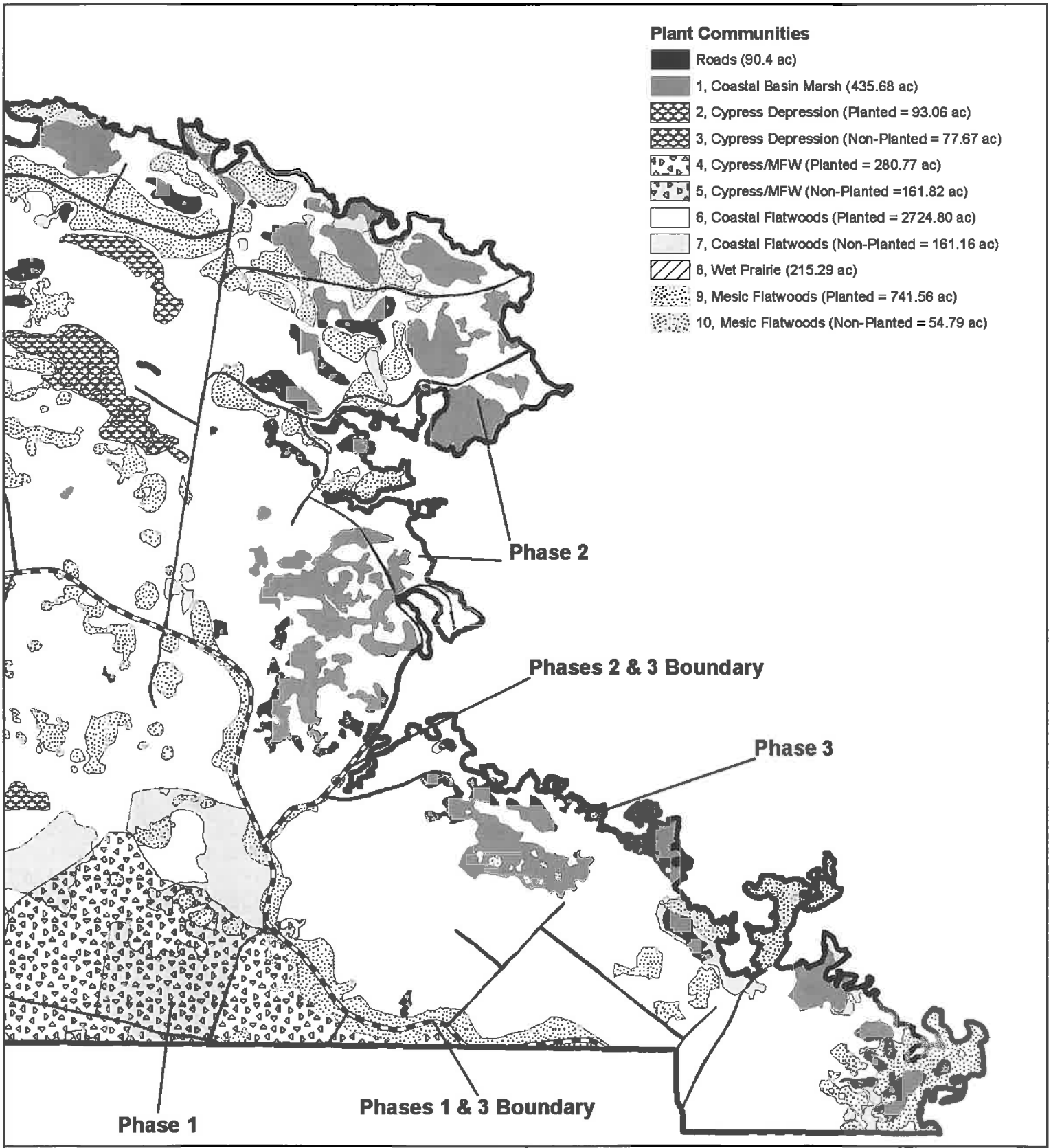
Figure 3: Soils Map

Breakfast Point Mitigation Bank

Ecological Resource Consultants, Inc.

JJL 12-13-10
ERC #10-130


Plant Communities
Roads (90.4 ac)
1, Coastal Basin Marsh (435.68 ac)
2, Cypress Depression (Planted = 93.06 ac)
3, Cypress Depression (Non-Planted = 77.67 ac)
4, Cypress/MFW (Planted = 280.77 ac)
5, Cypress/MFW (Non-Planted =161.82 ac)
6, Coastal Flatwoods (Planted = 2724.80 ac)
7, Coastal Flatwoods (Non-Planted = 161.16 ac)
8, Wet Prairie (215.29 ac)
9, Mesic Flatwoods (Planted = 741.56 ac)
10, Mesic Flatwoods (Non-Planted = 54.79 ac)
Phase 2
Phase 2
Phases 1 & 2 Boundary
Phase 4
Phases 1 & 4 Boundary
Phase 1
Legend:
BPMB Site Boundary
Phase Boundaries
0 1,000 2,000 4,000 Feet
N
1:24,000
Figure 4A: Existing Conditions Map
Breakfast Point Mitigation Bank
erc Ecological Resource Consultants, Inc.
JUL 12-13-10
ERC #10-130



Legend:

BPMB Site Boundary

Phase Boundaries

0 1,000 2,000 4,000 Feet

N

1:24,000

Figure 4B: Existing Conditions Map

Breakfast Point Mitigation Bank

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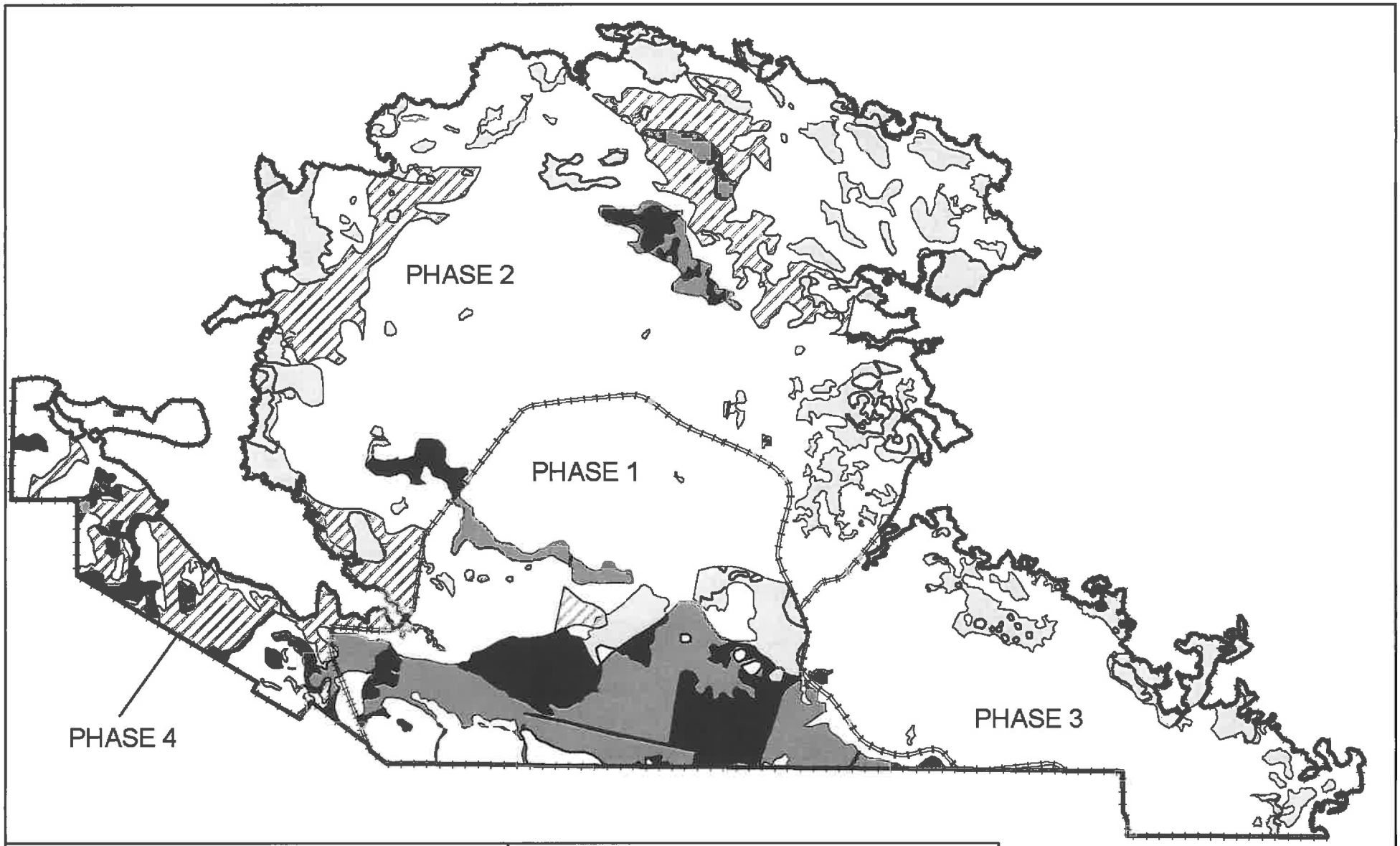
ERC #10-130



Legend:

- BPMB Site Boundary
- Phase Boundaries
- Roads
- LL Pine Planting Area
- Burn, Treat Invasives
- Burn, Mechanical, Treat Invasives
- Harvest, Burn, Treat Invasives
- Harvest, Burn, Mechanical, Treat Invasives

N

1:32,000

0 1,300 2,600 5,200 Feet

*Note: Portions of this work have been completed in phases 1,2,&4

Figure 5: Mitigation Plan Map

Breakfast Point Mitigation Bank

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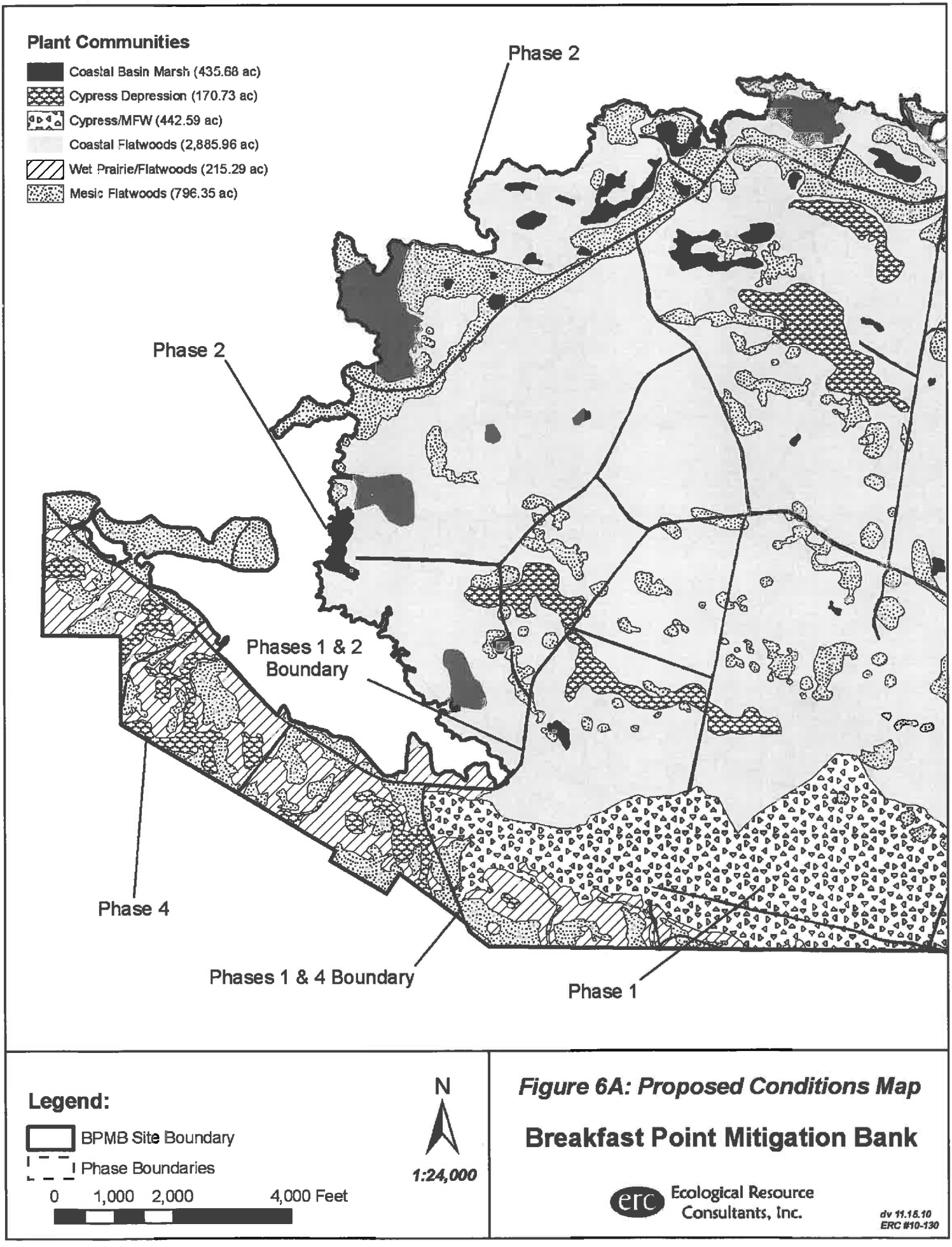
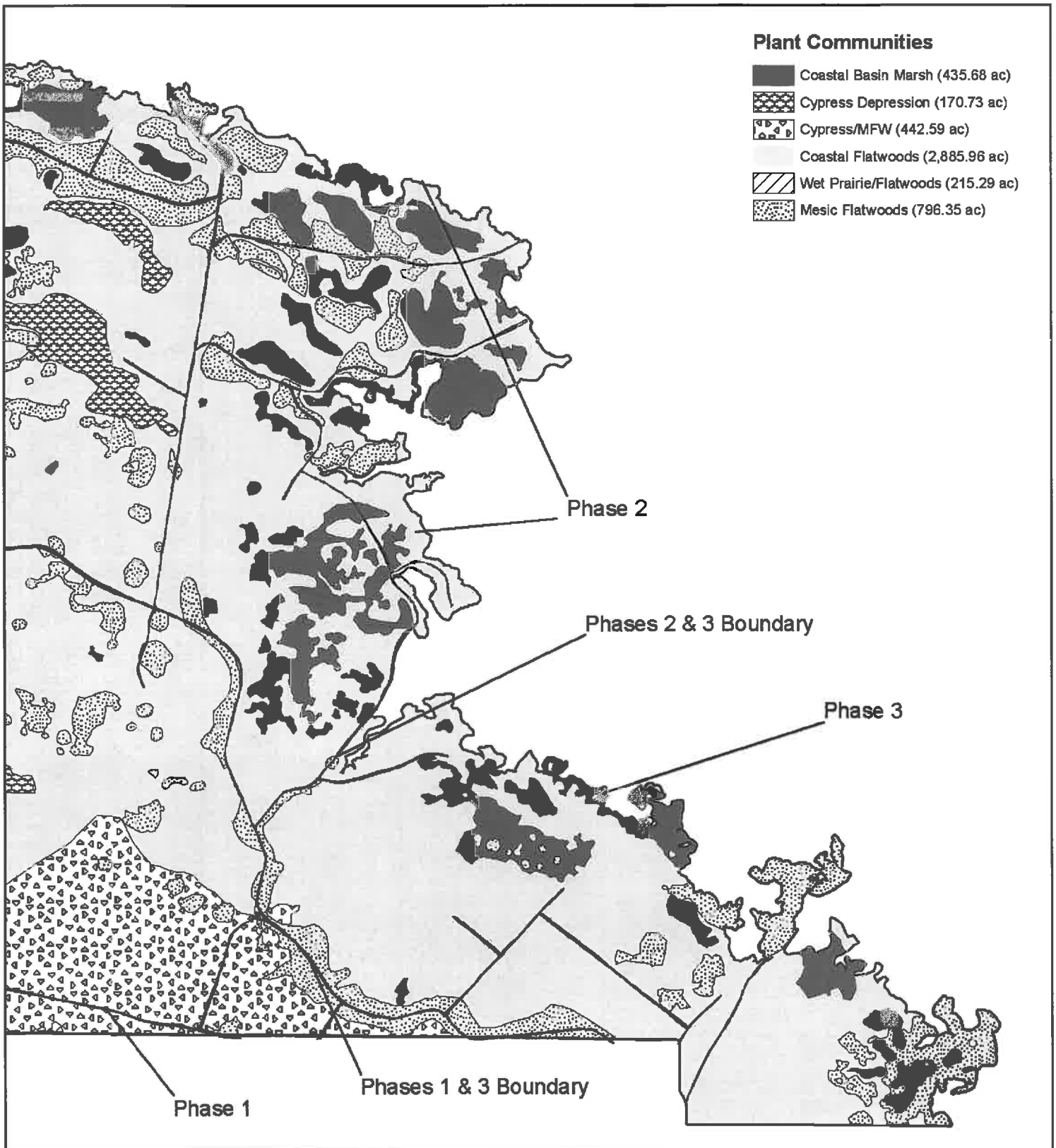
ERC #10-130


Plant Communities
Coastal Basin Marsh (435.68 ac)
Cypress Depression (170.73 ac)
Cypress/MFW (442.59 ac)
Coastal Flatwoods (2,885.96 ac)
Wet Prairie/Flatwoods (215.29 ac)
Mesic Flatwoods (796.35 ac)
Phase 2
Phase 2
Phases 1 & 2 Boundary
Phase 4
Phases 1 & 4 Boundary
Phase 1
Legend:
BPMB Site Boundary
Phase Boundaries
0 1,000 2,000 4,000 Feet
N
1:24,000
Figure 6A: Proposed Conditions Map
Breakfast Point Mitigation Bank
erc Ecological Resource Consultants, Inc.
dv 11.15.10
ERC #10-130



Legend:

BPMB Site Boundary

Phase Boundaries

0 1,000 2,000 4,000 Feet

N

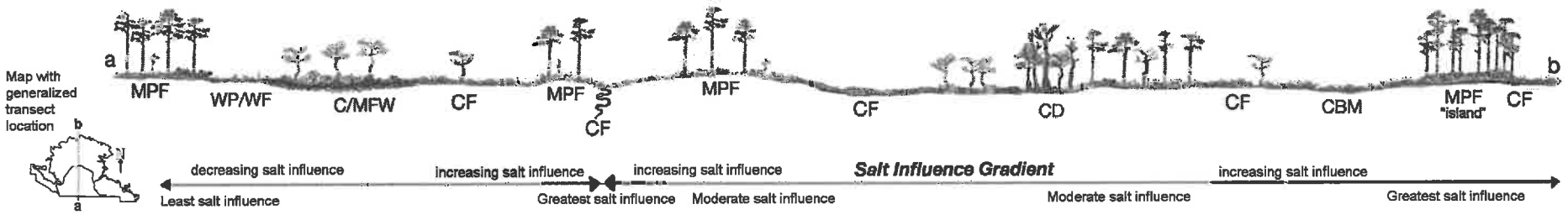
1:24,000

Figure 6B: Proposed Conditions Map

Breakfast Point Mitigation Bank

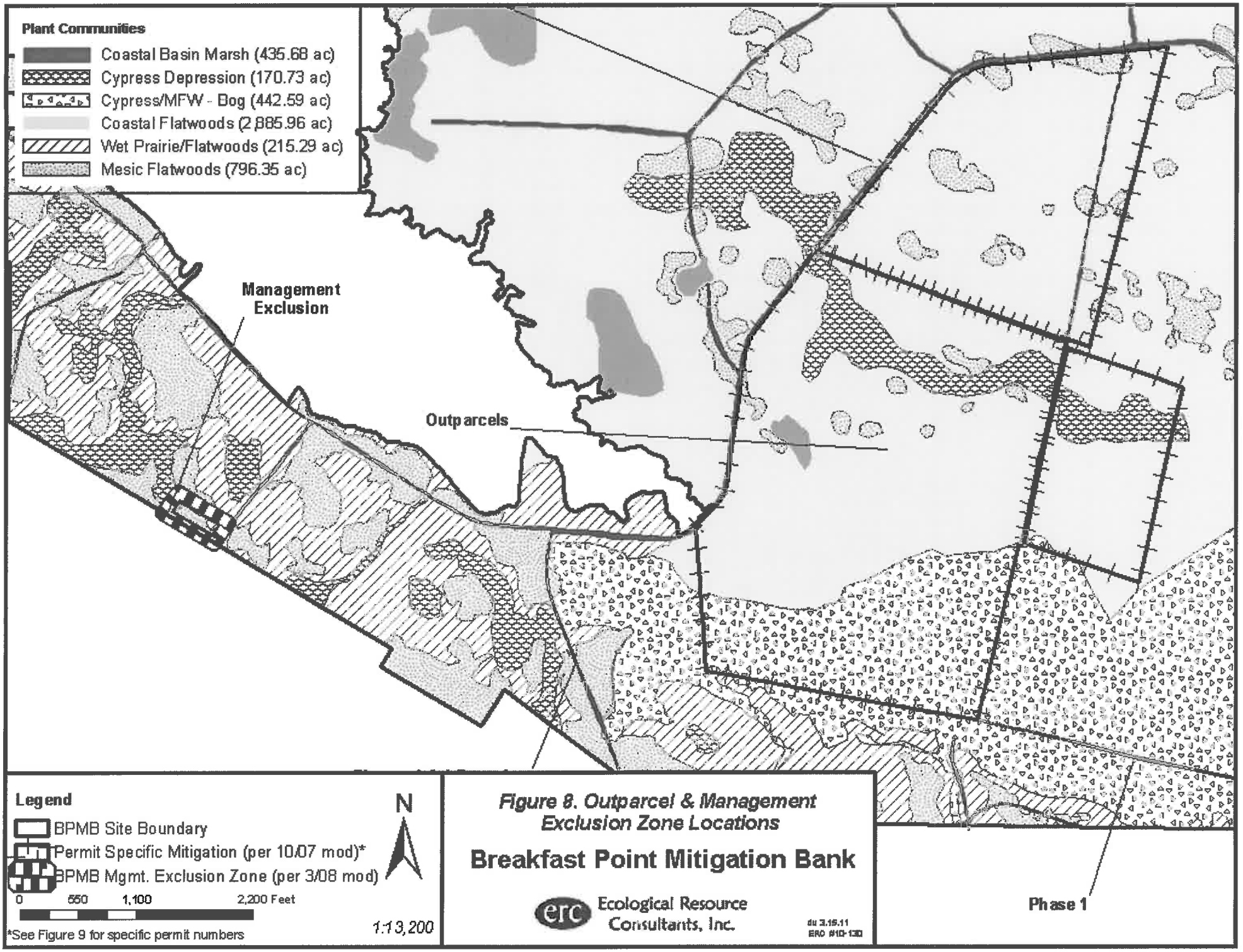
erc Ecological Resource Consultants, Inc.

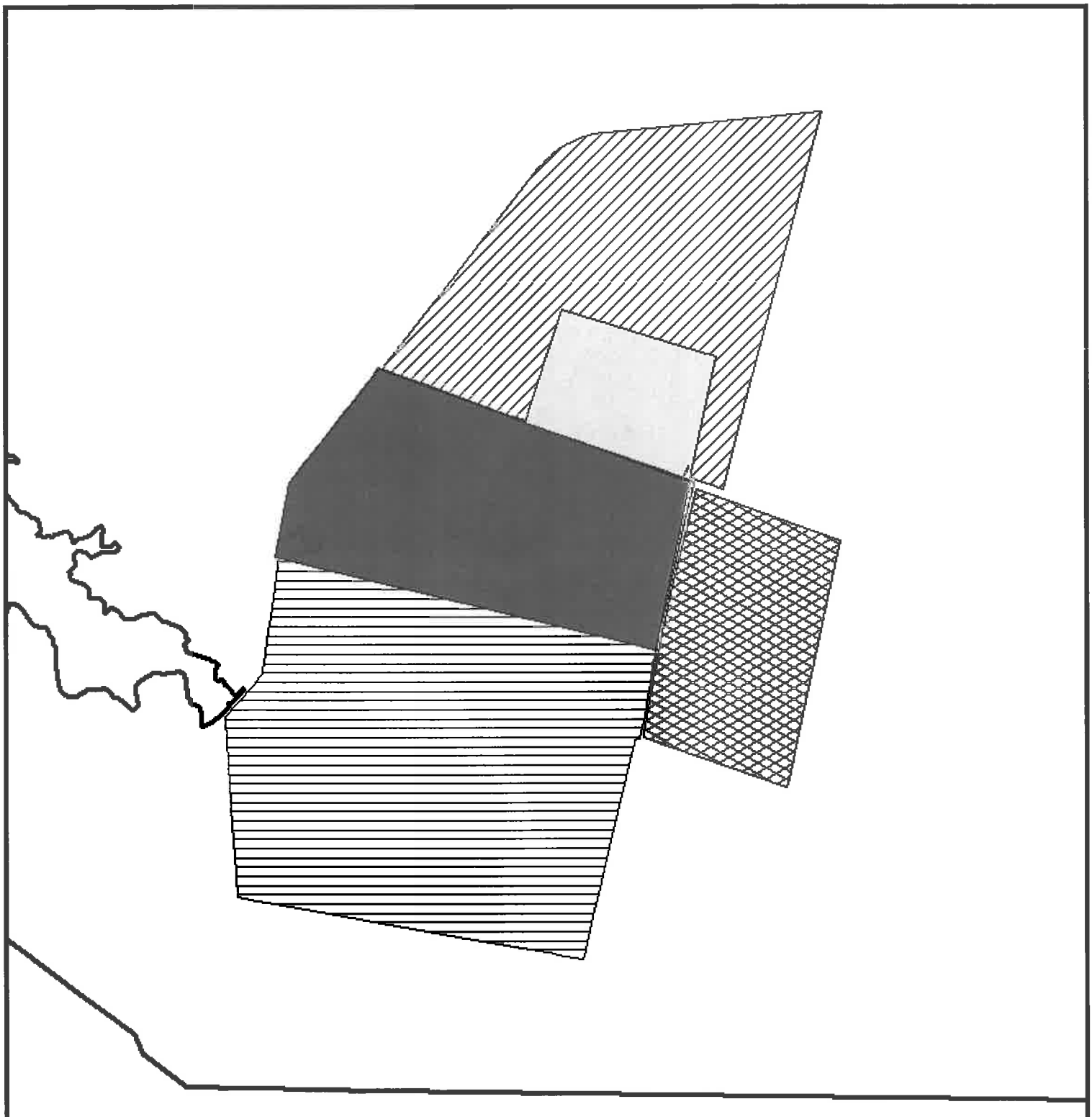
dv 11.16.10
ERC #10-130



	Mesic Pine Flatwoods **MPF**	Wet Prairie/ Wet Flatwoods **WP/WF**	Cypress/Mixed Forested Wetland **C/MFW**	Coastal Flatwoods **CF**	Cypress Depression **CD**	Coastal Basin Marsh **CBM**
Groundcover Richness	30 or more spp per transect	40 or more spp per transect	10 or more spp per transect	10 or more spp per transect	10 or more spp per transect	5 or more native spp/transect
Lifeform	80% shrubs reduced to coppice	80% shrubs reduced to coppice		80% shrubs reduced to coppice		60% relative coverage herbaceous
Herbaceous and Shrub Coverage	60% relative coverage herbaceous; 40% or less woody plants	70% relative coverage herbaceous; 30% or less woody plants		70% relative coverage herbaceous; 30% or less woody plants		Less than 30 trees/acre excluding cypress, tupelo and pop ash
Canopy Density	Approximately 10-70 trees/acre	Less than 30 trees/acre excluding cypress, tupelo and pop ash	10 or more trees per acre	Less than 30 trees per acre excluding cypress, tupelo and pop ash	10 or more trees per acre	
Invasive Exotic Species	Not to exceed 1% total coverage per acre	Not to exceed 1% total coverage per acre	Not to exceed 1% total coverage per acre	Not to exceed 1% total coverage	Not to exceed 1% total coverage per acre	Not to exceed 1% total coverage per acre
Bareground Leaf Litter Water Combined	Less than 20% bare ground and leaf litter (combined)	Less than 20% bare ground and leaf litter (combined)		Less than 20% bare ground and leaf litter (combined)		

Figure 7 - Depiction of Ecological Communities with Summary of Success Criteria


Plant Communities
Coastal Basin Marsh (435.68 ac)
Cypress Depression (170.73 ac)
Cypress/MFW - Bog (442.59 ac)
Coastal Flatwoods (2,885.96 ac)
Wet Prairie/Flatwoods (215.29 ac)
Mesic Flatwoods (796.35 ac)
Management Exclusion
Outparcels
Phase 1
Legend
BPMB Site Boundary
Permit Specific Mitigation (per 10/07 mod)*
BPMB Mgmt. Exclusion Zone (per 3/08 mod)
0 550 1,100 2,200 Feet
*See Figure 9 for specific permit numbers
1:13,200
N
Figure 8. Outparcel & Management Exclusion Zone Locations
Breakfast Point Mitigation Bank
Ecological Resource Consultants, Inc.
du 3.15.11
ERC #10-130



Legend

- BPMB Site Boundary
- Edgewater 03-0215227-001
- Home Depot 03-0199808-004
- Pier Park 03-010081-001
- Alf Coleman 03-0201291-001
- Beckrich 03-0183309-001

N

1:12,000

0 500 1,000 2,000 3,000 Feet

Figure 9. Outparcel Permit # Map

Breakfast Point Mitigation Bank

Ecological Resource Consultants, Inc.

dl 11.15.10
ERC #10-130

ATTACHMENT A - SECURITY, HUNTING, AND RECREATION PLAN

SECURITY

The Breakfast Point Mitigation Bank is located in a densely populated location in Bay County. The area will be adequately posted and access controlled via the establishment and maintenance of security gates to reduce the threat of trespass.

Gates

All entrance roads will be gated to control access (Figure A-1). Gates will be constructed of 4-inch steel channel and equipped with reflective tape. Gates will be locked and access permitted for St. Joe staff and their contractors, agency representatives, and hunting lease members and their guests only. Security housing around locks will be used to reduce the threat of illegal entry into the area.

Gates will be monitored bi-weekly by hunt club members. Monitoring will be a condition of the hunting lease agreement. Hunt club members are required to contact St. Joe staff (850-234-2204) within 24 hours of discovering a breach in gate security. Security gate damage will be repaired immediately.

Signs

The area boundary will be adequately posted with NO TRESPASSING signs indicating the site as an environmental conservation area and noting the DEP and Corps permit numbers. Signs will also be posted at each entry point. All designated roads are posted with signs. Hunt club members are responsible for placement of road signs. The condition of entry and road signs will be evaluated during bi-weekly security inspections by hunt club members. The inspection and evaluation of signs will be a condition of the hunting lease agreement. The same reporting protocol for gates also will apply for sign security checks. No trespassing signs also will be posted around the 750′ perimeter of all active eagle nests.

Additional

All unauthorized persons, signs of trespassing, and/or signs of illegal activities or disturbances (e.g., dumping, off-road driving, disturbance of restoration areas, yahooing) observed by hunt club members within the mitigation bank must be reported to St. Joe staff (850-234-2204) within 24 hours of discovery.

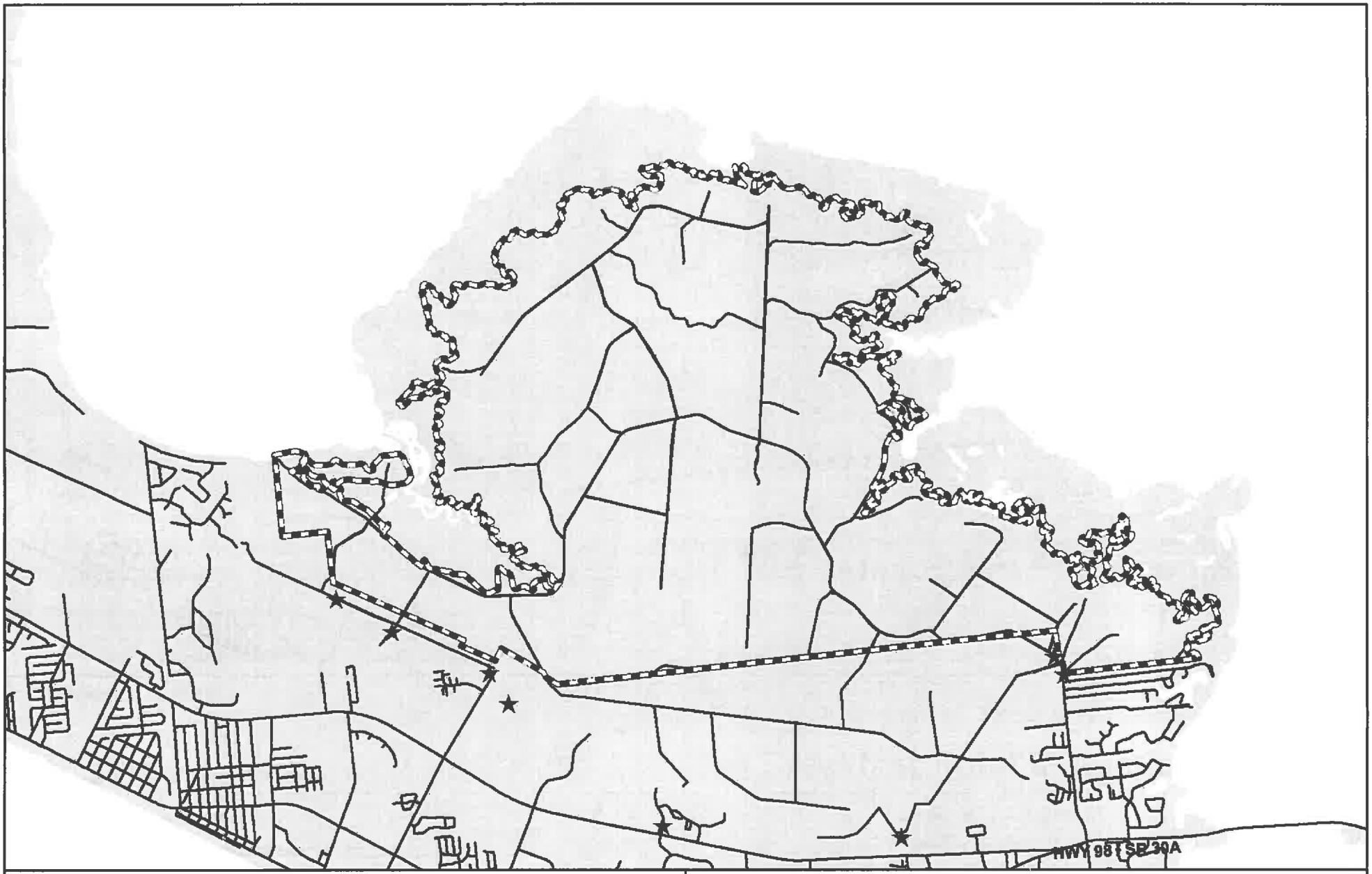
HUNTING CONDITIONS

1) Hunting leases will be reviewed every two years to assure that activities are not contrary to the overall mitigation bank goals. Hunting is being allowed because of the stewardship history and security benefits exhibited by the Hunt Clubs. These conditions are tied into the Mitigation Bank Security Plan.

Conditions are subject to modification pending evaluation of bi-annual reviews.

2) Hunting is limited to hunt club members and their supervised guests, and is limited to one hunter per 150 acres.
3) All club members and their guest must abide by all State and Federal laws and regulations regarding the taking of fish and wildlife. Additional restrictions on the taking and reporting of game species are specified below:
   a) Hunting is restricted to the following species:
      1. White-tailed deer
      2. Feral hog
      3. Wild turkey
      4. Gray squirrel
      5. Mourning and white-winged dove
      6. Coyote

      Only these species may be hunted. No other game or non-game species may be hunted, taken, harassed or otherwise disturbed. This applies to all other species including reptiles and amphibians.
   b) All leases are required to participate in a Quality Deer Management program that protects young bucks and the FWC antlerless deer program. Harvest regulations must require bucks to have at least one branched antler to be legal to take.
   c) The use of dogs to hunt deer and hogs is authorized during day light hours only. All dogs must be caught and removed from the area by the end of each day.
   d) Only adult male turkeys are legal to take.
   e) There is no size restriction, bag limit or season on the taking of feral hogs.
   f) All other legal game can be harvested according to State and Federal seasons and bag limits. Additional harvest restrictions may be established depending on harvest reports.
   g) An annual harvest report must be submitted to St. Joe Timberland Company no later than June 1 of each year.
4) No unauthorized modification or disturbance of habitats is allowed.
5) Off-road use of 4X4 or ATV vehicles is prohibited. Vehicles use is restricted to named/numbered roads. The only allowable uses for vehicles are hunting, fishing and security checks.
6) St. Joe Timberland Company shall convene an annual meeting with all hunt clubs leasing property within the area to educate club members on the goals of the mitigation bank, area regulations and review compliance with these conditions.
7) No hunting is allowed within 750 feet of any bald eagle nest. "No trespassing" signs will be posted along the perimeter of these zones.



Legend

★ Security Gates

BPMB Site Boundary

Roads

0 1,800 3,600 7,200 10,800 Feet

N

1:45,600

Figure A1: Security Plan Map

Breakfast Point Mitigation Bank

erc Ecological Resource Consultants, Inc.

dv 10.9.10
ERC #10-130

Florida Exotic Pest Plant Council's 2007 List of Invasive Plant Species

Purpose of the List: *To focus attention on —*

- the adverse effects exotic pest plants have on Florida's biodiversity and plant communities,
- the habitat losses from exotic pest plant infestations,
- the impacts on endangered species via habitat loss and alteration,
- the need to prevent habitat losses through pest-plant management,
- the socio-economic impacts of these plants (e.g., increased wildfires in certain areas),
- changes in the seriousness of different pest plants over time,
- the need to provide information that helps managers set priorities for control programs.

CATEGORY I

Invasive exotics that are altering native plant communities by displacing native species, changing community structures or ecological functions, or hybridizing with natives. *This definition does not rely on the economic severity or geographic range of the problem, but on the documented ecological damage caused.*

Scientific Name	Common Name	FLEPPC Cat.	Gov. List	Reg. Dist.
Abrus precatorius	rosary pea	I	N	C, S
Acacia auriculiformis	earleaf acacia	I		C, S
Albizia julibrissin	mimosa, silk tree	I		N, C
Albizia lebbeck	woman's tongue	I		C, S
Ardisia crenata (=*A. crenulata* misapplied)	coral ardisia	I		N, C, S
Ardisia elliptica (=*A. humilis* misapplied)	shoebutton ardisia	I	N	C, S
Asparagus aethiopicus (=*A. sprengeri*; *A. densiflorus* misapplied)	asparagus-fern	I		N, C, S
Bauhinia variegata	orchid tree	I		C, S
Bischofia javanica	bishopwood	I		C, S
Calophyllum antillanum (=*C. calaba* and *C. inophyllum* misapplied)	santa maria (names "mast wood," "Alexandrian laurel" used in cultivation)	I		S
Casuarina equisetifolia	Australian-pine, beach sheoak	I	P, N	N, C, S
Casuarina glauca	suckering Australian-pine, gray sheoak	I	P, N	C, S
Cinnamomum camphora	camphor tree	I		N, C, S
Colocasia esculenta	wild taro	I		N, C, S
Colubrina asiatica	lather leaf	I	N	S
Cupaniopsis anacardioides	carrotwood	I	N	C, S
Dioscorea alata	winged yam	I	N	N, C, S
Dioscorea bulbifera	air-potato	I	N	N, C, S
Eichhornia crassipes	water-hyacinth	I	P	N, C, S
Eugenia uniflora	Surinam cherry	I		C, S
Ficus microcarpa (*F. nitida* and *F. retusa* var. *nitida* misapplied)	laurel fig	I		C, S
Hydrilla verticillata	hydrilla	I	P, U	N, C, S
Hygrophila polysperma	green hygro	I	P, U	N, C, S
Hymenachne amplexicaulis	West Indian marsh grass	I		C, S
Imperata cylindrica (*I. brasiliensis* misapplied)	cogon grass	I	N, U	N, C, S
Ipomoea aquatica	waterspinach	I	P, U	C
Jasminum dichotomum	Gold Coast jasmine	I		C, S
Jasminum fluminense	Brazilian jasmine	I		C, S
Lantana camara	lantana, shrub verbena	I		N, C, S
Ligustrum lucidum	glossy privet	I		N, C
Ligustrum sinense	Chinese privet, hedge privet	I		N, C, S

FLEPPC List Definitions:

Exotic – a species introduced to Florida, purposefully or accidentally, from a natural range outside of Florida.

Native – a species whose natural range included Florida at the time of European contact (1500 AD).

Naturalized exotic – an exotic that sustains itself outside cultivation (it is still exotic; it has not "become" native).

Invasive exotic – an exotic that not only has naturalized, but is expanding on its own in Florida native plant communities.

Abbreviations:

Government List (Gov. List):

P = Prohibited by Florida Department of Environmental Protection;

N = Noxious weed listed by Florida Department of Agriculture & Consumer Services;

U = Noxious weed listed by U.S. Department of Agriculture.

Regional Distribution (Reg. Dist.):
N = north, C = central, S = south, referring to each species' current distribution in general regions of Florida (not its potential range in the state). Please refer to the map below.

Changes to the 2007 List:

Ludwigia peruviana added to list as Category I

Peruvian primrose willow (*Ludwigia peruviana*) is a shrub known from at least 48 Florida counties, from the Panhandle to the Keys. It is also known in the United States from North Carolina, Georgia, Alabama, Mississippi, and Texas. While always known as an aggressive weed in wetlands in Florida, there has been debate about its nativity. After an evaluation of available data, the Committee now agrees that this species was introduced into Florida, probably from South America, by the late 1800s, and has subsequently spread throughout the state and to other states. It can form monospecific stands in both disturbed and undisturbed wetlands, especially river and lake edges, and dramatically change ecosystem structure.

Tradescantia spathacea moved from Category I to Category II

Oyster plant (*Tradescantia spathacea*) is an herb known from at least 12 counties in southern Florida, although many populations have not been documented. A native of tropical America, this species was a very common ornamental plant decades ago, and is still grown occasionally for its green and purple foliage. The species spreads readily, both by vegetation offshoots and by seed. In urban areas, plants often appear on rooftops or on rock walls. It does spread into natural areas, but Committee members are unaware of sites where it has invaded natural areas and displaced native species to the extent of other Category I species. It has been moved to Category II.

Scientific Name	Common Name	FLEPPC Cat.	Gov. List	Reg. Dist.
Lonicera japonica	Japanese honeysuckle	I		N, C, S
Ludwigia peruviana	Peruvian primrosewillow	I		N, C, S
Lygodium japonicum	Japanese climbing fern	I	N	N, C, S
Lygodium microphyllum	Old World climbing fern	I	N	C, S
Macfadyena unguis-cati	cat's claw vine	I		N, C, S
Manilkara zapota	sapodilla	I		S
Melaleuca quinquenervia	melaleuca, paper bark	I	P, N, U	C, S
Mimosa pigra	catclaw mimosa	I	P, N, U	C, S
Nandina domestica	nandina, heavenly bamboo	I		N, C
Nephrolepis cordifolia	sword fern	I		N, C, S
Nephrolepis multiflora	Asian sword fern	I		C, S
Neyraudia reynaudiana	Burma reed, cane grass	I	N	S
Paederia cruddasiana	sewer vine, onion vine	I	N	S
Paederia foetida	skunk vine	I	N	N, C, S
Panicum repens	torpedo grass	I		N, C, S
Pennisetum purpureum	Napier grass	I		N, C, S
Pistia stratiotes	waterlettuce	I	P	N, C, S
Psidium cattleianum (=*P. littorale*)	strawberry guava	I		C, S
Psidium guajava	guava	I		C, S
Pueraria montana var. *lobata* (=*P. lobata*)	kudzu	I	N	N, C, S
Rhodomyrtus tomentosa	downy rose-myrtle	I	N	C, S
Rhynchelytrum repens (=*Melinis repens*)	Natal grass	I		N, C, S
Ruellia tweediana (= *R. brittoniana* , *R. coerulea*)	Mexican petunia	I		N, C, S
Sapium sebiferum (=*Triadica sebifera*)	popcorn tree, Chinese tallow tree	I	N	N, C, S
Scaevola taccada (=*Scaevola sericea, S. frutescens*)	scaevola, half-flower, beach naupaka	I	N	C, S
Schefflera actinophylla (=*Brassaia actinophylla*)	schefflera, Queensland umbrella tree	I		C, S
Schinus terebinthifolius	Brazilian pepper	I	P, N	N, C, S
Senna pendula var. *glabrata* (=*Cassia coluteoides*)	climbing cassia, Christmas cassia, Christmas senna	I		C, S
Solanum tampicense (=*S. houstonii*)	wetland nightshade, aquatic soda apple	I	N, U	C, S
Solanum viarum	tropical soda apple	I	N, U	N, C, S
Syngonium podophyllum	arrowhead vine	I		N, C, S
Syzygium cumini	jambolan plum, Java plum	I		C, S
Tectaria incisa	incised halberd fern	I		S
Thespesia populnea	seaside mahoe	I		C, S
Tradescantia fluminensis	white-flowered wandering jew	I		N, C
Urochloa mutica (= *Brachiaria mutica*)	Para grass	I		C, S

CATEGORY II

Invasive exotics that have increased in abundance or frequency but have not yet altered Florida plant communities to the extent shown by Category I species. ***These species may become ranked Category I, if ecological damage is demonstrated.***

Scientific Name	Common Name	FLEPPC Cat.	Gov. List	Reg. Dist
Adenanthera pavonina	red sandalwood	II		S
Agave sisalana	sisal hemp	II		C, S
Aleurites fordii (=*Vernicia fordii*)	tung oil tree	II		N, C
Alstonia macrophylla	devil tree	II		S
Alternanthera philoxeroides	alligator weed	II	P	N, C, S
Antigonon leptopus	coral vine	II		N, C, S
Aristolochia littoralis	calico flower	II		N, C, S

Scientific Name	Common Name	FLEPPC Cat.	Gov. List	Reg. Dist.
Asystasia gangetica	Ganges primrose	II		C, S
Begonia cucullata	wax begonia	II		N, C, S
Blechum pyramidatum	green shrimp plant, Browne's blechum	II		N, C, S
Broussonetia papyrifera	paper mulberry	II		N, C, S
Callisia fragrans	inch plant, spironema	II		C, S
Casuarina cunninghamiana	river sheoak, Australian-pine	II	P	C, S
Cecropia palmata	trumpet tree	II		S
Cestrum diurnum	day jessamine	II		C, S
Chamaedorea seifrizii	bamboo palm	II		S
Clematis terniflora	Japanese clematis	II		N, C
Cryptostegia madagascariensis	rubber vine	II		C, S
Cyperus involucratus (*C. alternifolius* misapplied)	umbrella plant	II		C, S
Cyperus prolifer	dwarf papyrus	II		C, S
Dalbergia sissoo	Indian rosewood, sissoo	II		C, S
Elaeagnus pungens	silverthorn, thorny olive	II		N, C
Epipremnum pinnatum cv. Aureum	pothos	II		C, S
Ficus altissima	false banyan, council tree	II		S
Flacourtia indica	governor's plum	II		S
Hemarthria altissima	limpo grass	II		C, S
Hibiscus tiliaceus (=*Taliparíti tiliaceum*)	mahoe, sea hibiscus	II		C, S
Ipomoea fistulosa (=*I. carnea* ssp. *fistulosa*)	shrub morning-glory	II	P	C, S
Jasminum sambac	Arabian jasmine	II		S
Kalanchoe pinnata	life plant	II		C, S
Koelreuteria elegans ssp. *formosana* (=*K. formosana; K. paniculata* misapplied)	flamegold tree	II		C, S
Leucaena leucocephala	lead tree	II	N	N, C, S
Limnophila sessiliflora	Asian marshweed	II	P, U	N, C, S
Livistona chinensis	Chinese fan palm	II		C, S
Melia azedarach	Chinaberry	II		N, C, S
Melinis minutiflora	Molassesgrass	II		C,S
Merremia tuberosa	wood-rose	II		S
Murraya paniculata	orange-jessamine	II		S
Myriophyllum spicatum	Eurasian water-milfoil	II	P	N, C, S
Nymphoides cristata	snowflake	II		C, S
Panicum maximum	Guinea grass	II		N, C, S
Passiflora biflora	two-flowered passion vine	II		S
Pennisetum setaceum	green fountain grass	II		S
Phoenix reclinata	Senegal date palm	II		C, S
Phyllostachys aurea	golden bamboo	II		N, C
Pittosporum pentandrum	Philippine pittosporum, Taiwanese cheesewood	II		S
Pteris vittata	Chinese brake fern	II		N, C, S
Ptychosperma elegans	solitaire palm	II		S
Rhoeo spathacea (see *Tradescantia spathacea*)				
Ricinus communis	castor bean	II		N, C, S
Rotala rotundifolia	roundleaf toothcup, dwarf Rotala,	II		S
Sansevieria hyacinthoides	bowstring hemp	II		C, S
Scleria lacustris	Wright's nutrush	II		C, S
Sesbania punicea	purple sesban, rattlebox	II		N, C, S
Solanum diphyllum	two-leaf nightshade	II		N, C, S
Solanum jamaicense	Jamaica nightshade	II		C
Solanum torvum	susumber, turkey berry	II	N, U	N, C, S

Changes to the 2007 List:

Melinis minutiflora
added to list as Category II

Molasses grass (*Melinis minutiflora*) is a grass known from at least 6 Florida counties, mostly along the lower eastern coast. It is native to Africa and western Asia and was originally introduced as a forage grass in southern Florida. While it has been known to be established for some time, its populations have been expanding recently into undisturbed natural areas, especially pine rocklands in Miami-Dade County. Once established, it forms locally dense stands and excludes other herbs and graminoids. The strong molasses smell given off by the plants makes it especially easy to identify, particularly when it is stepped on.

Rotala rotundifolia
added to list as Category II

Roundleaf toothcup (*Rotala rotundifolia*) is an aquatic herb known from at least three Florida counties in southern Florida (Broward, Lee, and Palm Beach). It is also introduced in Alabama. It is native to India and Southeast Asia. The species is commonly grown as an aquarium plant and has been introduced after aquarium grown plants were discarded into Florida wetlands. It has become established in canals and along rivers. It reproduces readily through sexual and asexual means and is expected to spread within the state. It is also known as dwarf rotala.

Use of the FLEPPC List

FLEPPC encourages use of the Invasive Species List for prioritizing and implementing management efforts in natural areas, for educating lay audiences about environmental issues, and for supporting voluntary invasive plant removal programs. When a non-native plant species is to be restricted in some way by law, FLEPPC encourages use of the List as a first step in identifying species worth considering for particular types of restriction. For more information on using the FLEPPC List of Invasive Plant Species, see *Wildland Weeds* Summer 2002 issue (Vol. 5, No. 3), pp. 16-17.

NOTE: Not all exotic plants brought into Florida become pest plants in natural areas. The FLEPPC List of Invasive Plant Species represents only about 10% of the 1,300+ exotic species that have been introduced into Florida and subsequently established outside of cultivation. Most escaped exotics usually present only minor problems in highly disturbed areas (such as roadsides). And there are other exotics cultivated in Florida that are "well-behaved" — that is, they don't escape cultivation at all.

www.fleppc.org

Scientific Name	Common Name	FLEPPC Cat.	Gov. List	Reg. Dist.
Sphagneticola trilobata (=*Wedelia trilobata*)	wedelia	II		N, C, S
Stachytarpheta cayennensis (=*S. urticifolia*)	nettle-leaf porterweed	II		S
Syagrus romanzoffiana (=*Arecastrum romanzoffianum*)	queen palm	II		C, S
Syzygium jambos	rose-apple	II		C, S
Terminalia catappa	tropical-almond	II		C, S
Terminalia muelleri	Australian-almond	II		C, S
Tradescantia spathacea (=*Rhoeo spathacea, Rhoeo discolor*)	oyster plant	II		S
Tribulus cistoides	puncture vine, burr-nut	II		N, C, S
Urena lobata	Caesar's weed	II		N, C, S
Vitex trifolia	simple-leaf chaste tree	II		C, S
Washingtonia robusta	Washington fan palm	II		C, S
Wedelia (see *Sphagneticola* above)				
Wisteria sinensis	Chinese wisteria	II		N, C
Xanthosoma sagittifolium	malanga, elephant ear	II		N, C, S

Citation example:
FLEPPC. 2007. List of Florida's Invasive Plant Species. Florida Exotic Pest Plant Council. Internet: http://www.fleppc.org/07list.htm or *Wildland Weeds* Vol. 10(4), Fall 2007.

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FLEPPC Database – The Florida Exotic Pest Plant Database contains over 6,000 sight records of infestations of FLEPPC Category I and Category II species in Florida public lands and waters. 360 species are recorded. Nearly all of the records are from local, state, and federal parks and preserves; a few records document infestations in regularly disturbed public lands such as highway or utility rights-of-way. Natural area managers and other veteran observers of Florida's natural landscapes submit these records, with many supported further by voucher specimens housed in local or regional herbaria for future reference and verification. New and updated observations can be submitted online at www.fleppc.org/EDDMapS/ This database, along with other plant-data resources such as the University of South Florida Atlas of Florida Vascular Plants at www.plantatlas.usf.edu, the Florida Natural Areas Inventory database at www.fnai.org, and The Institute for Regional Conservation Floristic Inventory of South Florida database at www.regionalconservation.org, provides important basic supporting information for the FLEPPC List of Invasive Plant Species.

Images of FLEPPC-listed species may be found at one or more of the following websites: University of South Florida Atlas of Florida Vascular Plants, www.plantatlas.usf.edu; the "Introduced Species" page on the University of Florida Herbarium website, www.flmnh.ufl.edu/herbarium/cat/digitalimagingprojects.htm; at Fairchild Tropical Garden's Virtual Herbarium, www.virtualherbarium.org/vhportal.html, The Robert K. Godfrey Herbarium at FSU, http://herbarium.bio.fsu.edu/index.php; and at the University of Florida's Center for Aquatic and Invasive Plants, http://plants.ifas.ufl.edu. Please note that greater success and accuracy in searching for plant images is likely if you search by scientific name rather than a common name. Common names often vary in cultivation and across regions. For additional information on plants included in this list, see related links and pages at www.fleppc.org.

ATTACHMENT C – COMMUNITY TARGETS AND UMAM ASSESSMENT

Background: Because of its coastal location, many of the communities on the Breakfast Point Mitigation Bank (BPMB) site share characteristics and species representing a blend of inland and coastal communities. As such, none of the common community classification systems (FLUCCS, FNAI, SCS's 26 Communities) are completely consistent with the communities found in much of the peninsula area of the bank. Therefore, the community names assigned to the site for the purpose of designating UMAM assessment areas and target descriptions, similar to historical native structure and vegetation, are provided below for this site.

Communities:

Mesic flatwoods are uplands distributed within the low, flat landscape of BPMB. They will be restored to historic conditions of a slash pine and longleaf pine canopy, in an open landscape with an appropriate groundcover, variably dominated by wiregrass (*Aristida* spp.), saw palmetto (*Serenoa repens*), gallberry (*Ilex glabra*), runner oak (*Quercus minima*), dwarf blueberry (*Vaccinium myrsinites*) and other fire-dependent grasses and forbs. Shrubs should be maintained in coppice with periodic fire.

The ***wet prairie/wet flatwoods*** community is found downslope of the mesic flatwoods in the southern-most, "mainland" portion of the site. The community's open canopy, when present, will consist of primarily pond cypress with lesser amounts of slash pine. The restored groundcover will contain a dense and diverse assemblage of wetland herbs dominated by a variety of *Rhynchospora* spp., wiregrass (*Aristida* spp.), *Eriocaulon* spp., *Carex* spp. and other grasses and forbs, all of which are adapted to frequent fire. Groundcover may also includes some unusual and endemic insectivorous species, such as pitcherplants and sundews, and rare endemics, such as Henry's spiderlily and Chapman's crownbeard. Shrubs should be maintained as small (typically <1.5 m), coppice shrubs and often include fetterbush (*Lyonia lucida),* chokeberry (*Aronia arbutifolia),* titi (*Cyrilla racemiflora*), gallberry (*Ilex glabra & I. coriacea*), wet prairie huckleberry (*Gaylussacia mosieri)* and endemic bear tupelo (*Nyssa ursina*).

The ***cypress/mixed forested wetlands*** are found in the basin and seepage area downslope of the mesic and wet flatwoods south of the peninsula. They share many species with the mesic and wet flatwoods, but burn with less frequency. When fire does burn into cypress/mixed forested wetlands, this landscape can become an open landscape with coppice shrubs of various heights, depending on fire intensity. This community is characterized by a sparse to moderately dense canopy of pond cypress, slash pine sweetbay, swampbay, or swamp tupelo, and a sub-canopy of myrtle-leaf holly (*Ilex myrtifolia*) or *Ilex cassine,* with tussocks and hummocks containing coppice shrubs, wetland grasses and forbs. The groundcover shares many prairie species such as: *Carex glaucescens, Rhynchospora* spp., and *Saccharum giganteum.*

Coastal flatwoods comprise most of the peninsula portion of the site and are described as a flat, wet landscape with a combination of floristic elements (mostly wetland groundcover species) typical of wet flatwoods and coastal basin marsh. There will be a generally open canopy (averaging <100 trees/ac.) of slash pine and/or pond cypress (*Taxodium ascendens*) with a groundcover of wetland grasses and forbs common to marsh and prairie, such as switch grass *(Panicum virgatum),* sawgrass (*Cladium jamaicense*), *Rhynchospora* spp. such as *R. plumosa, R. fascicularis, R. filifolia, R. microcarpa,* cordgrass (*Spartina patens),* rushes such as *Juncus roemarianus J. repens* and *J. marginatus,* umbrella grass *(Fuirena scirpoides),* and others. Broomgrass (*Andropogon glomeratus)* is often a conspicuous species in coastal flatwoods that have been recently logged, but will decrease in dominance over time.

Coastal basin marsh communities are largely treeless depressions within the coastal flatwoods (mostly near the perimeter of the peninsula near the bay) with long hydroperiods and areas of open water. Because of the brackish influence, the groundcover can be dominated by species such as cordgrass (*Spartina patens),* switch grass *(Panicum virgatum),* black needle rush *(Juncus roemarianus)* and sawgrass (*Cladium jamaicense*), but are also likely to contain *Saccharum giganteus, Iris tridentata,* and *Sagittaria lancifolia.*

Cypress depressions is the term used to describe the more heavily canopied and longer hydroperiod basin depressions found within the peninsular coastal flatwoods and the linear depressions found within the southern prairie and flatwoods area. Cypress depressions typically have a canopy dominated by pond cypress and slash pine. Some depressions also have canopy or subcanopy including swamp ash, red maple, sweetbay, swampbay, and swamp tupelo, myrtle-leaf holly and bear tupelo. Groundcover is dominated by sawgrass, switchgrass and cordgrass in peninsula cypress depressions, and by *Carex* spp. and *Rhynchospora* spp. within the southern linear depressions.

Overall, the landscape will be restored, principally by tree and shrub reduction and fire management, to an open, grassy landscape with various density of cypress, slash pine and longleaf pine that will resemble historic conditions as shown in the following photographs and Figure 7 of the permit.

The following photographs provide examples of structure within the range of expected outcomes for the named communities that reflect appropriate targets, but may vary in species and/or density of individual plants or strata.

Mesic flatwoods – open landscape, slash and longleaf pine canopy, reduced shrubs, relatively diverse groundcover of grasses, saw palmetto, gallberry and dwarf blueberry.

Coastal flatwoods – open landscape, slash pine, reduced shrub strata of yaupon holly, fetterbush, bear nyssa, saw palmetto, gallberry, low to moderately diverse groundcover of wetland graminoids, bushy goldenrod, and a variety of wildflowers.

Wet Prairie/Wet Flatwoods– open landscape, sparse canopy of pine and pond cypress, minimal shrub strata, diverse graminoid/forb groundcover.

Cypress/mixed forested wetlands – Mixed canopy of mostly slash pine and pond cypress, open shrub strata variously reduced to coppice, often dominated by *Hypericum*, groundcover can be floristically rich and much like wet prairie or coppice shrubs may dominate with less herbaceous diversity, see next photo.

Cypress/mixed forested wetlands – This is an example with a mixed and moderately dense canopy of pond pine, slash pine and pond cypress, shrub strata coppiced but open enough for a diversity of groundcover.

Cypress depression – Mixed canopy of pond cypress, slash pine, swamp tupelo and myrtle-leaf holly; shrub strata is often coppiced in ecotone. Groundcover is sparse to moderately dense in the interior depending on the hydroperiod, light availability and management. Most of the groundcover diversity is typically found in the ecotone of cypress depression swamps.

A different expression of ***cypress depression*** found more in the peninsula – reticulated, mixed canopy of pond cypress, slash pine. Groundcover, often dominated by sawgrass, cordgrass and switchgrass is often moderately dense.

Coastal basin marsh (foreground) – No canopy or a few scattered pond cypress, slash pine, pop ash and myrtle-leaf holly in ecotone; minimal shrubs in ecotone. Groundcover is sparse to moderately dense in the interior, depending on the water depth and influence of salinity.

UMAM Assessment Areas:
This site was divided into 6 basic community types – ***mesic flatwoods, coastal flatwoods, coastal basin marsh, wet prairie/wet flatwoods, cypress depression,*** and ***cypress/mixed forest,*** as previously described. Most of the site was planted in slash pine plantation, but some areas were not planted (~940 acres out of the total 5,000 acres). Thus, the mesic flatwoods, coastal flatwoods, cypress/mixed forest, and cypress depression communities each have 2 assessment areas: "planted" and "non-planted"; all of the wet prairie/wet flatwoods is considered "planted", and all of the coastal basin marsh is "non-planted" (see UMAM Summary Table).

General Part II scoring:
Location and Landscape: In general, because of its connectivity with the bay, its relatively un-developed neighboring communities, its variety of natural or "to be restored" community types, and its lack of significant barriers to wildlife movement, the landscape scores generally lie within the moderate to optimal range in the current condition and optimal (***coastal basin marsh, cypress/mixed forest,*** and non-planted areas) or near-optimal (all other assessment areas) in the with-mitigation condition. Most non-planted areas had a 1 point lift, whereas most planted areas had a 2-3 point lift. ***Wet prairie/wet flatwoods*** received a 4 point lift because of the impact of the high density pine within and surrounding that area, including its southern boundary.

Hydrology: In general, the hydrology would clearly support the natural communities, with hydroperiods little altered from historic patterns. Principally, the impacts to hydrology are directly associated with the silviculture itself, with bedding causing unnatural microtopography-related hydrology shifts and the pine altering water uptake and availability. Most of these effects are less pronounced on this flat terrain that has little or no drainage capacity. Some additional hydrologic impact may be associated with the monitoring roads and ditches, but since these areas were not within credit-earning assessment areas and their effects are thought to have a very limited area of impact, these alterations did not have a significant effect on scoring. Again, the with-mitigation conditions are scored as optimal, with only the planted ***cypress/mixed forest, coastal flatwoods,*** and ***wet prairie/wet flatwoods*** scoring a near-optimal 9, associated with residual impacts from bedding. The ***coastal basin marsh*** assessment area received no hydrology lift, planted areas generally received 1 point of lift for the break-up of the bedding and tree removal, and ***wet prairie/wet flatwoods*** receiving 2 points of lift because of the current more intensive bedding and planting.

Community Structure: The principal components of the structure variable in this environment are: appropriate plant species; appropriate diversity and distribution of these species; appropriate vertical structure (i.e., canopy and groundcover); and the ability of the vegetation to carry and withstand fire. Most of the site had been planted in slash pine, and the planted wetland areas were bedded. Survivorship of planted pine is poor in a few of the lowest areas of the ***coastal flatwoods*** and ***cypress depressions***.

Plantation management had the greatest effect within the ***mesic flatwoods*** and ***wet prairie/wet flatwoods*** (with current condition score of 4), higher areas of the ***coastal flatwoods*** (current score of 5), and in portions of the ***cypress depression*** (current score of 6). Where planting did not occur or was significantly ineffective, current condition scores ranged from 8 to 9 based upon the degree of vegetation alteration from fire suppression.

Time Lag and Risk: Highly altered areas are expected to attain the scored structure within 5-10 years (assessed time lag) after the final success criteria and credit releases are attained over a period of about 10 years. The uplands community were not assigned time-lag because the community structure scores are expected to be met by final release. Although fire management will be used site-wide (i.e., no community will be restricted from fire), its importance and frequency is diminished in the ***cypress depression, cypress/mixed forest,*** and ***coastal basin marsh*** communities. Where fire is the integral enhancement and long-term management tool, a risk factor of 1.25 was assessed due to the risk of obtaining appropriate fire permits, wildfire intervention, and other management constraints.

Credit types:
Community enhancement is combined into 3 credit types for use within the service area: Wet Prairie/Flatwoods, representing a predominantly freshwater and diverse groundcover with some pine and cypress, Coastal Flatwoods, representing a similar structure but with less diverse, salt-tolerant herbaceous species, and Cypress/Mixed Forested, representing predominantly freshwater forested systems.

Within the coastal flatwoods assessment area previously discussed, periodic storms and natural microtopography result in a highly reticulated and somewhat dynamic mosaic of expressions with indistinct boundaries, including areas of increased cypress density and areas of principally freshwater prairie-like groundcover. For this reason, credits derived from the coastal flatwoods assessment area acreage were assigned, by an estimated percentage, to the different credit types (40% as Wet Prairie/Flatwoods credits, 40% as Coastal Flatwoods credits, and 20% Cypress/Mixed Forested credits). Likewise, the credits derived from mesic flatwoods were assigned to the different credit types proportional to the acreage of the wetland communities they support. Coastal basin marsh credits are assigned to Coastal Flatwoods, cypress depression and cypress/mixed forest credits are assigned to Cypress/Mixed Forested, and Wet prairie/wet flatwoods credits are assigned to Wet Prairie/Flatwoods credits.

The following UMAM Summary Table provides the assessment areas, scoring, and credit type summary.

Attachment C Table - UMAM Summary

Assessment Areas	FLUCCS	AREA (acres)	SCORE						UMAM W/OUT MIT.	UMAM WITH MIT.	DELTA	TIME LAG	RISK	P	RFG	CREDIT
			AND LANDSCAPE		WATER ENVIRONMEN		COMMUNITY STRUCTURE									
			W/OUT or CUR.	WITH MIT.	W/OUT or CUR.	WITH MIT.	W/OUT or CUR.	WITH MIT.								
Coastal Basin Marsh non-planted	641	435.68	9.00	10.00	10.00	10.00	8.00	10.00	0.90	1.00	0.10	1.00	1.00	1.00	0.10	**43.57**
Cypress Depression planted	641 / 621	93.06	7.00	10.00	8.00	10.00	6.00	9.00	0.70	0.97	0.27	1.14	1.00		0.23	**21.77**
Cypress Depression non-planted	641 / 621	77.67	7.00	10.00	9.00	10.00	8.00	10.00	0.80	1.00	0.20	1.00	1.00		0.20	**15.53**
Cypress/Mixed Forested planted	621/ 631	280.77	7.00	10.00	8.00	9.00	6.00	9.00	0.70	0.93	0.23	1.14	1.00		0.20	**57.47**
Cypress/Mixed Forested non- planted	621/ 631	161.82	7.00	10.00	9.00	10.00	7.00	9.00	0.77	0.97	0.20	1.14	1.00		0.18	**28.39**
Coastal Flatwoods planted	625/ 626	2,724.80	7.00	10.00	7.00	9.00	5.00	9.00	0.63	0.93	0.30	1.14	1.25		0.21	**573.64**
Coastal Flatwoods non-planted	625/ 626	161.16	7.00	10.00	9.00	10.00	6.00	9.00	0.73	0.97	0.23	1.00	1.25		0.19	**30.08**
Wet Prarie/Flatwoods planted	643/ 626	215.29	5.00	9.00	7.00	9.00	4.00	9.00	0.53	0.90	0.37	1.25	1.25		0.23	**50.52**
Mesic Flatwoods planted	411	741.56	7.00	9.00			4.00	8.00	0.55	0.85	0.30	1.00	1.25		0.24	**177.97**
Mesic Flatwoods non-planted	411	54.79	8.00	10.00			6.00	9.00	0.70	0.95	0.25	1.00	1.00	0.90	0.23	**12.33**
ROAD		90.40	N/A													**0.00**
TOTALS		**5,037.00**														**1011.28**

Credit Types

Coastal Flatwoods Credits =	**437.37**	**Wet Prairie/Flatwoods Credits =**	**301.88**	**Cypress/Mixed Forested Credits =**	**272.03**
from coastal basin marsh:	43.57	from wet prairie/flatwoods:	50.52	from cypress/mixed forested:	85.86
from coastal flatwoods (40%):	241.49	from coastal flatwoods (40%):	241.49	from cypress depression:	37.30
from uplands (proportional):	152.31	from uplands (proportional):	9.8717	from coastal flatwoods (20%):	120.75
				from uplands (proportional):	28.12

ATTACHMENT D – FIRE MANAGEMENT PLAN

Executive Summary

Ten burn units have been designated within the four phases of the Breakfast Point Mitigation Bank (BPMB); prescriptions are included with this synopsis. The principle objective of fire is for the restoration of native communities by the reduction of woody shrubs and the stimulation of native grass and herb seeding and growth. The general prescription is to burn as frequently as fuel and weather conditions allow, and recognizing that the stated objectives are best served with a growing season fire and when water levels promote a relatively hot fire for shrub reduction. However, frequent fire (~2 year rotation) is generally preferable to delaying burns until optimal conditions (spring drought). Restoration burning is targeted to have higher frequency (2-3 years) while long-term management fire may delay a year or so to optimize the opportunity for a growing season burn. Fire will generally be allowed to burn into all wetland systems when conditions allow without resulting in a catastrophic situation.

The conditions of the prescription are intended to inhibit succession of woody species, promote fire-adapted species, and stimulate seed production of desirable herbs. Along with ecological considerations, the prescription has been written to comply with Florida's open-burning laws and liability considerations. Preservation of life and property by safe implementation of prescribed fire is the primary consideration of the Prescribed Burn Manager.

General description of burn units

Ten burn units delineated by existing roads or natural breaks are established for this project (Figure D-1). The burn units are of a size that allows a more manageable application of fire than that of a large, single burn unit. Burns will be conducted in each unit when specific contingencies (listed below) for burn units have been met. Prescribed burns simulating natural fire events will be integral in restoring and maintaining the desired vegetative communities and ecotypes within the project site. Some burn units extend to offsite St. Joe lands that are identified as Conservation Units in the Ecosystem Management Agreement (EMA) to avoid placing an artificial fire break across native communities. Internal lines within the burn units will not be established except, as necessary, to avoid more intensive wildfire management or as required for obtaining burn authorizations for ecologically-appropriate coverage or schedule. Any naturally occurring fire or those fires that burn outside of prescription will be deemed 'wildfires'. Any fire lines or ecological damage that results from extinguishing such fires shall be restored by the Permittee within two weeks of its occurrence. All burn units shall have the same overall burn objectives and schedule, except for the delayed restoration area described as the "Management Exclusion Area" in Figure 8 of permit.

Primary resource objectives

The objective of this burn plan is to apply fire to the project area to facilitate replacement of planted pine community with several different vegetative communities including: mesic pine flatwoods, wet prairies, coastal flatwoods, basin marshes, and dome swamps. The burns are intended to mimic natural burn frequencies and the burn objectives are best described as ecological. The initial burns are intended to exhibit high intensity to consume standing biomass, kill woody vegetation and to encourage the growth of fire-dependent grasses and forbs. Later burns are intended to maintain the restoration, and further the long term ecological objectives of the mitigation plan. Burn coverage of 80% or more in uplands and wet prairie is the criterion by which mitigation credits will be released.

Burn application contingencies

1. Burn units containing stands of merchantable timber will be thinned to the specifications in the mitigation bank thinning plan.
2. A fire line must be established along the common boundary of Unit 1 and the Bayside Trailer Park. Burning of Unit 1 is contingent upon the successful execution of an easement to Bayside Trailer Park for the fire line. If not obtained, a fire line must be established on the St. Joe side of the common boundary.
3. Unit 1 should be burned after units west of this unit. Burning will be conducted under *southeast winds* to avoid smoke management concerns
4. A letter of permission from Gulf Coast Community College to St. Joe to conduct a burn on their property is required prior to burning. GCCC owns the northeast tip of Breakfast Point (Section 22 of Township 3 South – Range 15 West). This approval is expected, but if it is not received, a fire line must be established.
5. A fire line on the southeast boundary between Burn Unit 10 and the Arnold High School Parcel must be established prior to burning.
6. A fire line on the western boundary of Burn Unit 10 must be established prior to burning the unit completely. A road exists that can be used as a fire line to isolate the western end of the unit allowing the eastern portion to be burned provided the Arnold HS fire line is in place.
7. A letter of permission from the private land owner in the southwest corner (owner unknown) of burn Unit 10 is required prior to burning, otherwise additional fire lines will be needed.
8. A letter of permission from Florida DEP allowing St. Joe to burn state sovereign lands (marshes) is required prior to burning any coastal burn unit.

9. It must be determined that the bald eagle nest located in Unit 6C is not active before any restoration activities may be accomplished within a 750-foot radius of the nest. If the nest is active, then activities must be accomplished during the non-nesting season. In addition, aerial ignition will not be employed within Burn Unit 6C. It must be determined that smoke from a prescribed burn will not affect the bald eagle nest before burning within the secondary zone around the bald eagle nest during the nesting season.
10. Any naturally occurring fire or those fires that burn outside of prescription will be deemed 'wildfires'. Any ecological damage that results from extinguishing such fires shall be restored by the bank sponsor within two weeks of its occurrence.

Site preparation
Before conducting a prescribed burn in burn unit 6C, a radius of at least 10 feet around the bald eagle nest tree, more if burning to reduce woody growth, will be raked or mowed to prevent fire attacking the tree (USFWS 2003). Other methods that may be used to reduce risk to the tree include lightly scraping off loose bark from ground to breast height and performing a preparation burn around the nest tree before the rest of the burn unit is ignited (USFWS 2003).

[1] The USFWS concurs in their Biological Opinion (USFWS 2004) with the conservation measures described in the Biological Assessment for the bald eagle (*Haliaeetus leucocephalus*) nest within the BPMB (WilsonMiller 2004). As described in the BA, all restoration activities, including burning, within the primary zone (750-foot radius around the nest) will be performed outside the nesting season, and the non-nesting season will be determined by observing nest activity. Nesting season is typically October through May, depending on locality.

Roads and natural features were used to delineate ten units. A permanent firebreak that utilizes existing features will be maintained along the southern boundary (dragline ditch, road and swamp presently run along the southern boundary. In light of the ecological objectives of this management activity, disking will be utilized in lieu of plowing. Disking will cause minimal soil disturbance while exposing enough mineral soil to serve as a firebreak.

Safety considerations
Numerous safety zones are present including the internal loop road, a deep swamp on the south, and West Bay. All personnel present at the burn will carry Personal Protective Equipment (PPE). All radio communications will utilize plain language. Signs will be available for posting on U.S. Highway 98 in the event conditions cause low visibility on this roadway. All adjacent landowners will be contacted in writing at least thirty days prior to burn.

Prescription
The parameters below are included as an example. However, to insure compliance with Florida's open burn laws, event-specific prescriptions will be drafted and filed prior to each burn. The parameters identified in each prescription may differ from those listed below at the discretion and judgment of the Prescribed Burn Manager.

Burn schedule and chronology
The burn units will be burned on a two/four-year rotation. The growing season burns will be timed to insure maximum kill of woody species. All subsequent burns also will be growing season burns.

In the mitigation bank, the initial burn will be fired in eight burn units labeled in Figure D-1. Burn unit boundaries utilize existing man-made and natural features which diminishes the need for additional fire lines. Expected removal of some of this infrastructure will eventually allow an uninterrupted landscape. Subsequent burns may occur in units different from those presented in this plan.

Chronology: To achieve the requirements of the mitigation bank authorization, the following chronology will be implemented:

Burn Unit 7, Burn Unit 6, Burn Unit 9, Burn Unit 8, Burn Unit 5, Burn Unit 3, Burn Unit 2, Burn Unit 4, Burn Unit 10, Burn Unit 1. Prescriptions for each burn unit are presented below. Fire lines and/or easements must be in place prior to burning Units 1 and 10

Prescription Unit 1 – 1474 acres

Parameter	Low	High
Temperature	55°	90°
Relative Humidity	40°	80°
Wind Direction	South-Southeast	South
Wind Speed (20' forecast)	5 mph	15 mph
Transport wind	10 mph	NA
Mixing Height	1640	NA
Dispersion Index (Day)	35	70
Burn method – **Aerial Ignition**	Backing	Strip Head

Prescription Unit 2 – 950 acres

Parameter	Low	High
Temperature	55°	90°
Relative Humidity	40°	80°
Wind Direction	Southwest	South
Wind Speed (20′ forecast)	5 mph	15 mph
Transport wind	10 mph	NA
Mixing Height	1640	NA
Dispersion Index (Day)	35	70
Burn method – **Aerial Ignition**	Backing	Strip Head

Prescription Unit 3 – 368 acres

Parameter	Low	High
Temperature	55°	90°
Relative Humidity	40°	80°
Wind Direction	Southwest	South
Wind Speed (20′ forecast)	5 mph	15 mph
Transport wind	10 mph	NA
Mixing Height	1640	NA
Dispersion Index (Day)	35	70
Burn method – **Aerial Ignition**	Backing	Strip Head

Prescription Unit 4 – 825 acres

Parameter	Low	High
Temperature	55°	90°
Relative Humidity	40°	80°
Wind Direction	SW to SE	South
Wind Speed (20′ forecast)	5 mph	15 mph
Transport wind	10 mph	NA
Mixing Height	1640	NA
Dispersion Index (Day)	35	70
Burn method – **Aerial Ignition**	Backing	Strip Head

Prescription Unit 5 – 534 acres

Parameter	Low	High
Temperature	55°	90°
Relative Humidity	40°	80°
Wind Direction	Southwest	South
Wind Speed (20′ forecast)	5 mph	15 mph
Transport wind	10 mph	NA
Mixing Height	1640	NA
Dispersion Index (Day)	35	70
Burn method – **Aerial Ignition**	Backing	Strip Head

Prescription Unit 6 – 363 acres

Parameter	Low	High
Temperature	55°	90°
Relative Humidity	40°	80°
Wind Direction	Southeast	South
Wind Speed (20′ forecast)	5 mph	15 mph
Transport wind	10 mph	NA
Mixing Height	1640	NA
Dispersion Index (Day)	35	70
Burn method – Hand Ignition	Backing	Strip Head

Prescription Unit 7 – 781 acres

Parameter	Low	High
Temperature	55°	90°
Relative Humidity	40°	80°
Wind Direction	Southwest	South
Wind Speed (20′ forecast)	5 mph	15 mph
Transport wind	10 mph	NA
Mixing Height	1640	NA
Dispersion Index (Day)	35	70
Burn method – **Aerial Ignition**	Backing	Strip Head

Prescription Unit 8 – 998 acres

Parameter	Low	High
Temperature	55°	90°
Relative Humidity	40°	80°
Wind Direction	SE to SW	South
Wind Speed (20′ forecast)	5 mph	15 mph
Transport wind	10 mph	NA
Mixing Height	1640	NA
Dispersion Index (Day)	35	70
Burn method – **Aerial Ignition**	Backing	Strip Head

Prescription Unit 9 – 493 acres

Parameter	Low	High
Temperature	55°	90°
Relative Humidity	40°	80°
Wind Direction	SE to SW	South
Wind Speed (20′ forecast)	5 mph	15 mph
Transport wind	10 mph	NA
Mixing Height	1640	NA
Dispersion Index (Day)	35	70
Burn method – **Aerial Ignition**	Backing	Strip Head

Prescription Unit 10 – 639 acres

Parameter	Low	High
Temperature	55°	90°
Relative Humidity	40°	80°
Wind Direction	Southwest	South
Wind Speed (20' forecast)	5 mph	15 mph
Transport wind	10 mph	NA
Mixing Height	1640	NA
Dispersion Index (Day)	35	70
Burn method – **Aerial Ignition**	Backing	Strip Head

Smoke management screening

This prescription has passed smoke screening provided wind prescriptions for each burn unit are employed. Based on fuel type and burn unit area (7,425 acres) a smoke sensitive radius of 5 miles is warranted. This zone includes several important highways and two public schools. Prescriptions for the eastern and southern burn units are sensitive to these features.

Note: Burn objectives can be accomplished only under prescribed wind direction for each unit. Smoke screening can be cleared under all but northerly winds, which may reduce visibility on US Highway 98 and Panama City Beach. The timing of the burn is critical to ecological objectives and will be the over-riding parameter.

Burn Assessment

A record of the prescribed burning of Breakfast Point Mitigation Bank is recorded by photographs distributed throughout the bank at fixed intersections and crossroads within a particular burn unit. After the initial baseline photo documentation is recorded, additional archival photos will be taken within 4 weeks of a prescribed fire at the fixed points as shown in Exhibit D-1. After each prescribe burn event at the bank a certified prescribed fire applicator will survey the burn blocks to determine the extent and thoroughness of the prescribe burn. Burn unit photographs will be used to support the observations of the certified prescribed fire applicator. All burn unit photographs will be archived for future comparison. In addition, photographs taken at fixed points along the qualitative transects will support burn block observations determined and recorded by the certified prescribed fire applicator.

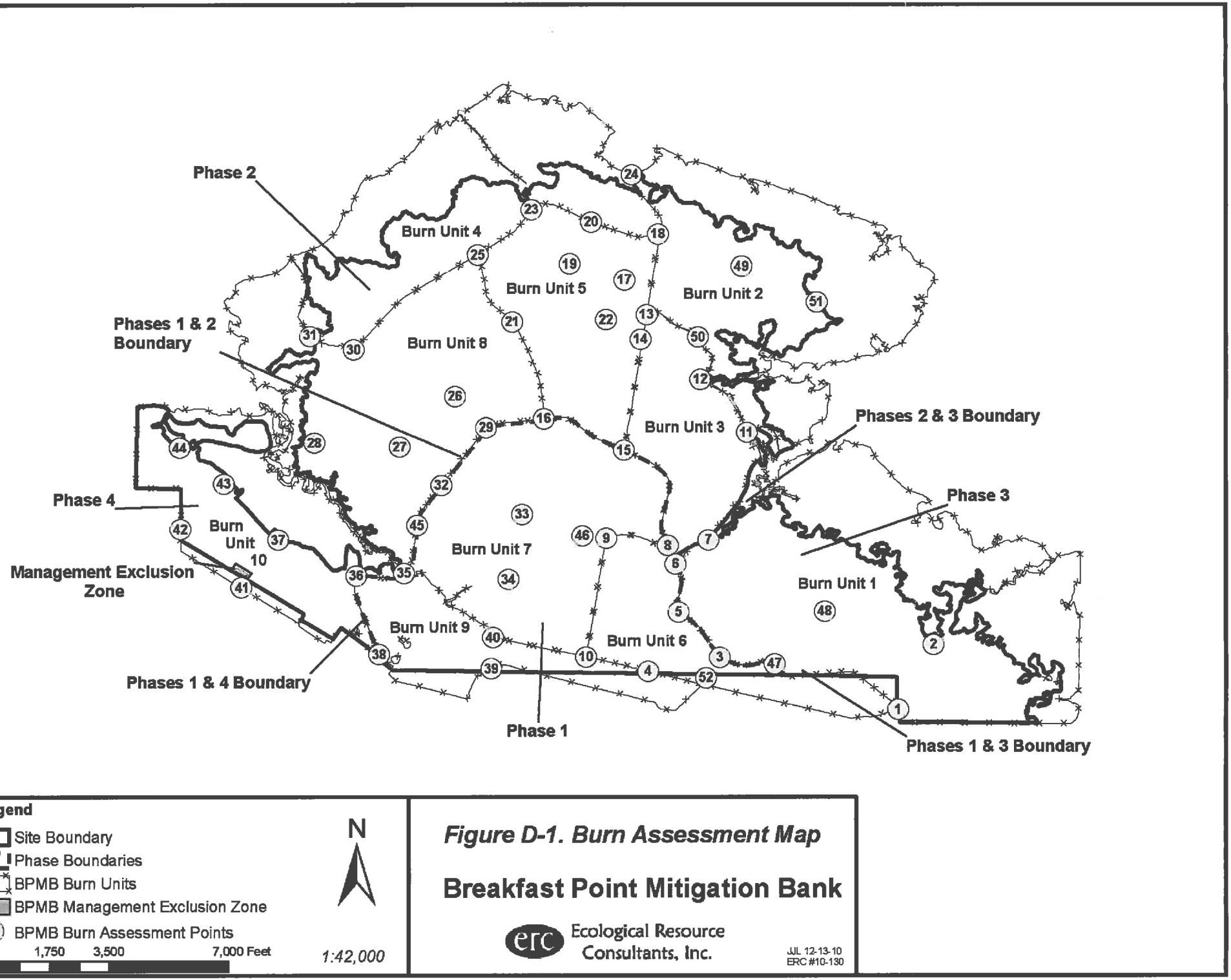

Figure D-1. Burn Assessment Map

Breakfast Point Mitigation Bank

Ecological Resource Consultants, Inc.

JJL 12-13-10
ERC #10-130

ATTACHMENT E – Hydrology Plan Engineer Figures

Index of Exhibits:

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Exhibit 3. Proposed Conditions/Drainage
Exhibit 4. Overall Phase 2 Improvements
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Exhibit 6. Phase 2-West Improvements
Exhibit 7. Phase 2-West Improvements (Black & White)
Exhibit 8. Phase 2-East Improvements
Exhibit 9. Phase 2-East Improvements (Black & White)
Exhibit 10. Typical Low Water Crossings
Exhibit 11. Typical Culvert/Ditch Block

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BREAKFAST POINT MITIGATION BANK
THE ST. JOE COMPANY
EXHIBIT 1
LIST OF EXHIBITS

Project Number: BPMB
Drawn By: LFJ
Sheet Number: 1 of 11

Date: March 1, 2011
Scale: Not To Scale
Revision: 4

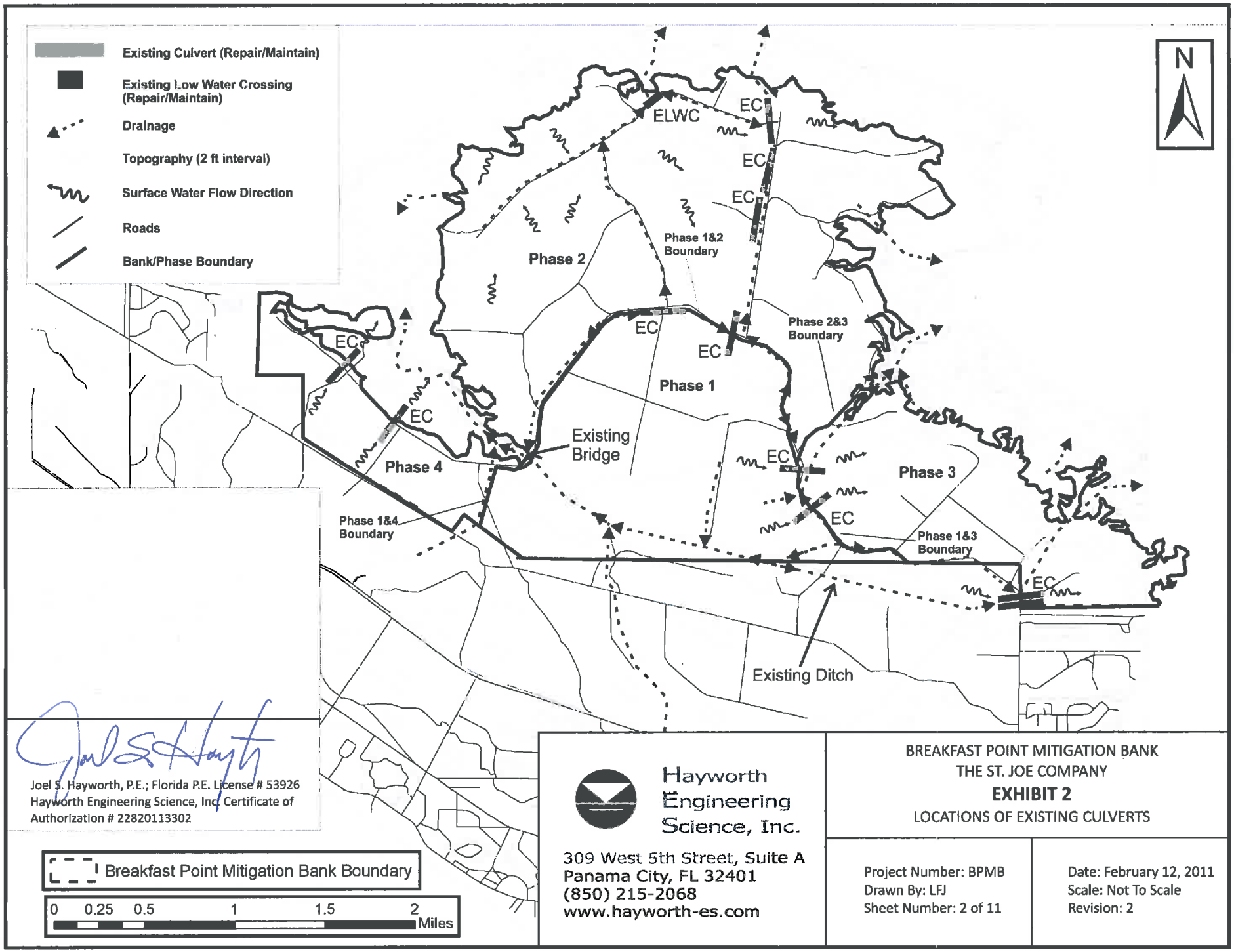

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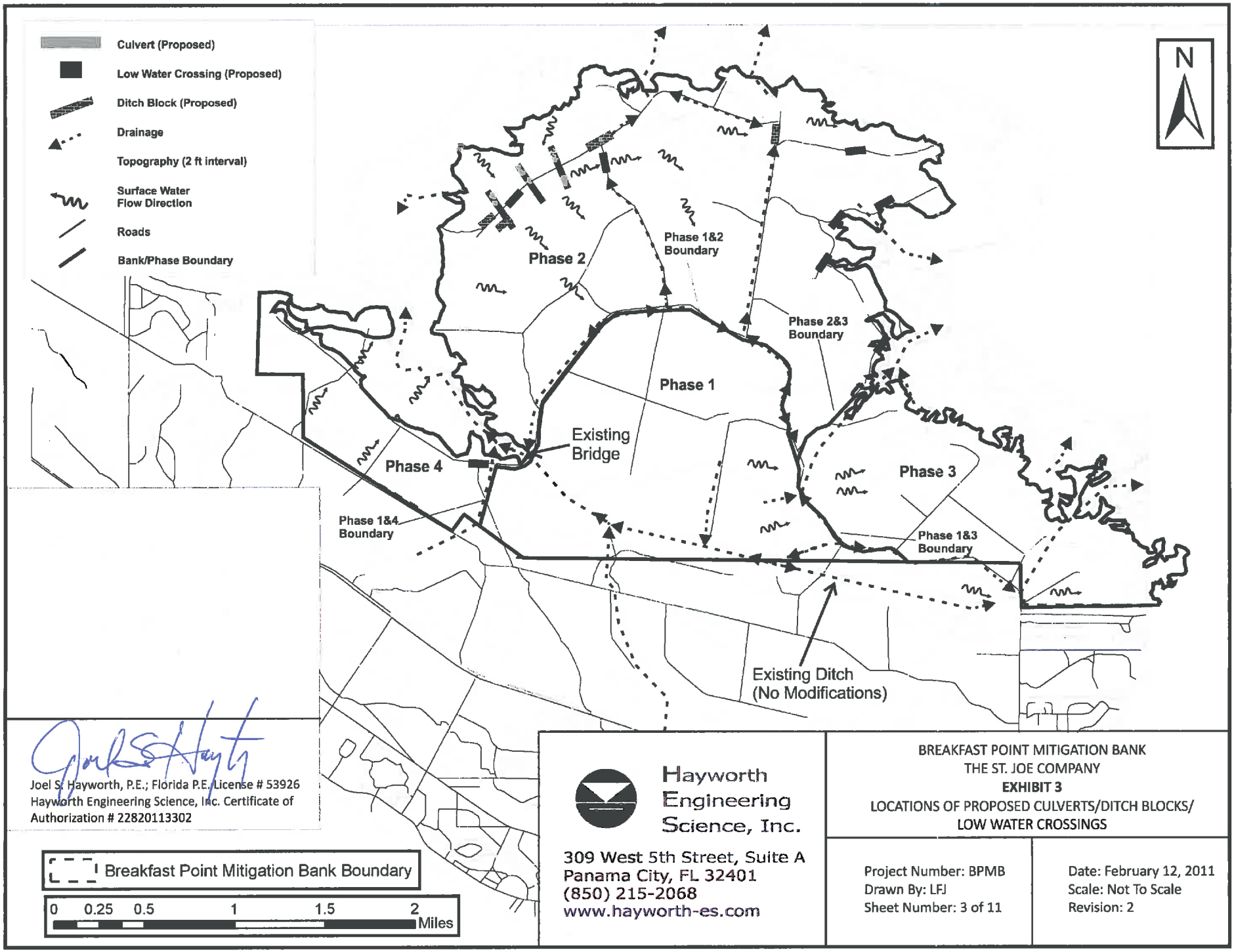
EXHIBIT 2

LOCATIONS OF EXISTING CULVERTS

Project Number: BPMB
Drawn By: LFJ
Sheet Number: 2 of 11

Date: February 12, 2011
Scale: Not To Scale
Revision: 2



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BREAKFAST POINT MITIGATION BANK
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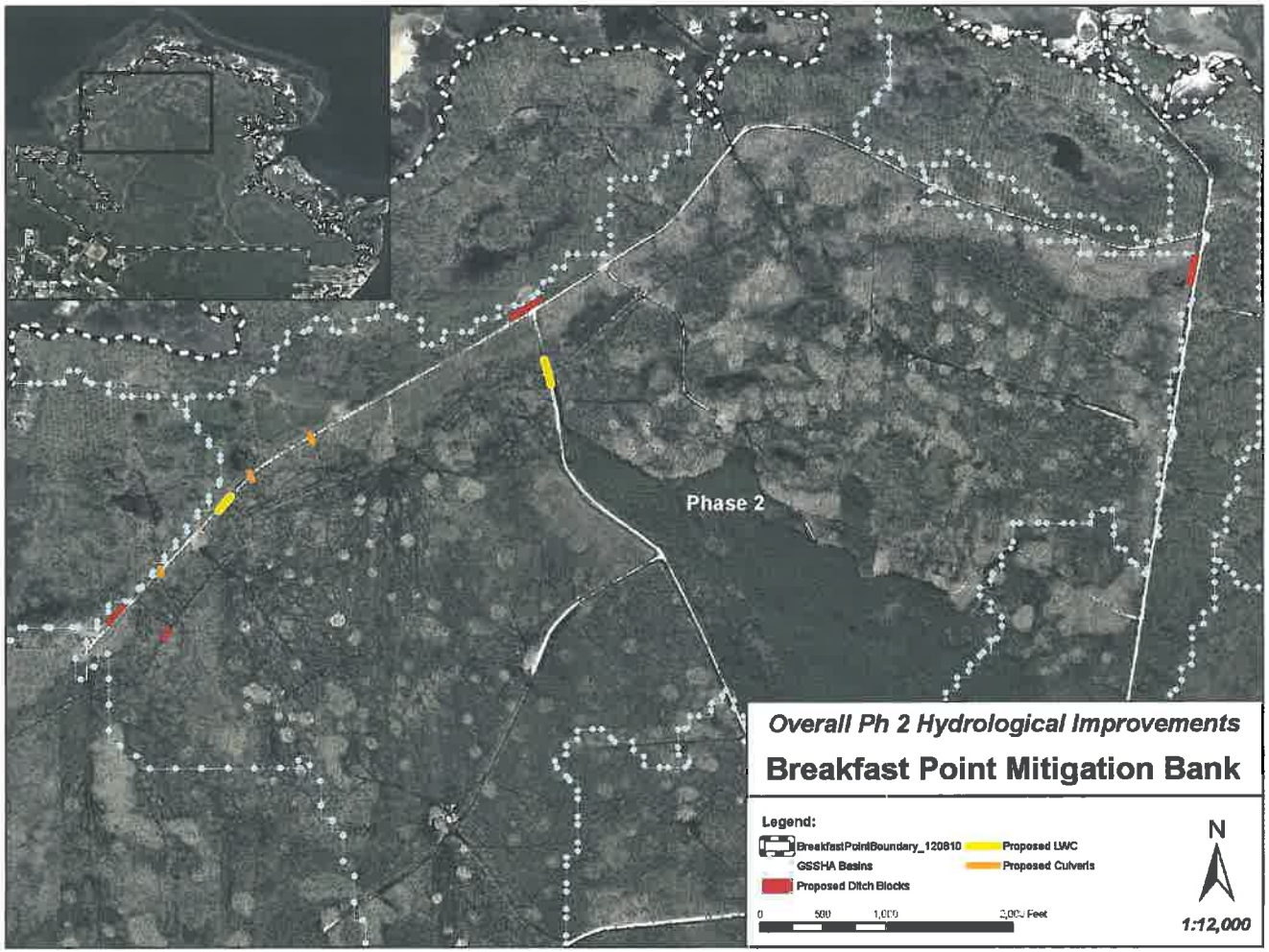
EXHIBIT 3
LOCATIONS OF PROPOSED CULVERTS/DITCH BLOCKS/ LOW WATER CROSSINGS

Project Number: BPMB
Drawn By: LFJ
Sheet Number: 3 of 11

Date: February 12, 2011
Scale: Not To Scale
Revision: 2



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BREAKFAST POINT MITIGATION BANK
THE ST. JOE COMPANY
EXHIBIT 4
LOCATIONS OF PROPOSED CULVERTS/DITCH BLOCKS/
LOW WATER CROSSINGS-PHASE 2

Project Number: BPMB
Drawn By: LFI
Sheet Number: 4 of 11

Date: February 12, 2011
Scale: Not To Scale
Revision: 0

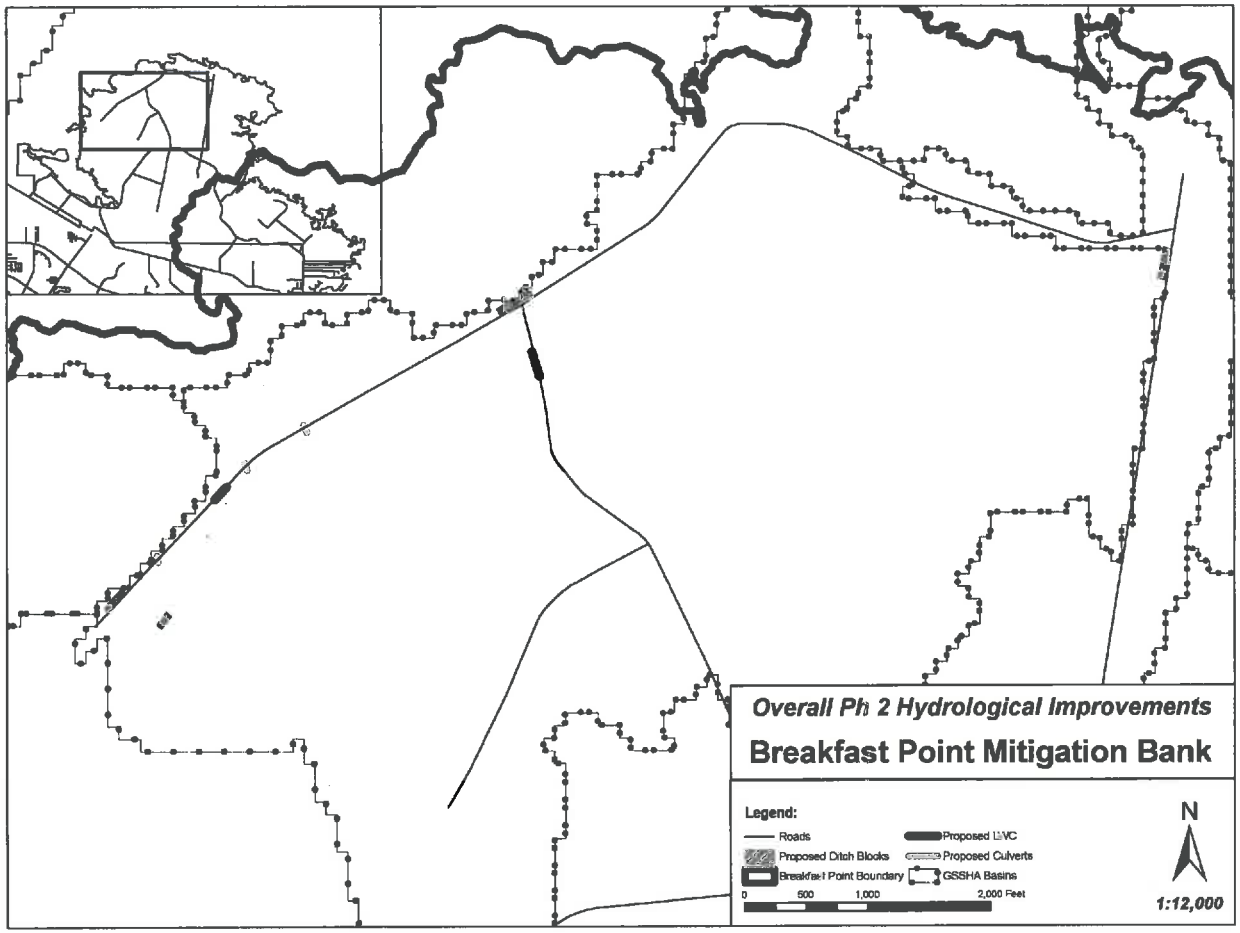

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EXHIBIT 5
LOCATIONS OF PROPOSED CULVERTS/DITCH BLOCKS/
LOW WATER CROSSINGS-PHASE 2 (B&W)

Project Number: BPMB
Drawn By: LFJ
Sheet Number: 5 of 11

Date: March 1, 2011
Scale: Not To Scale
Revision: 0

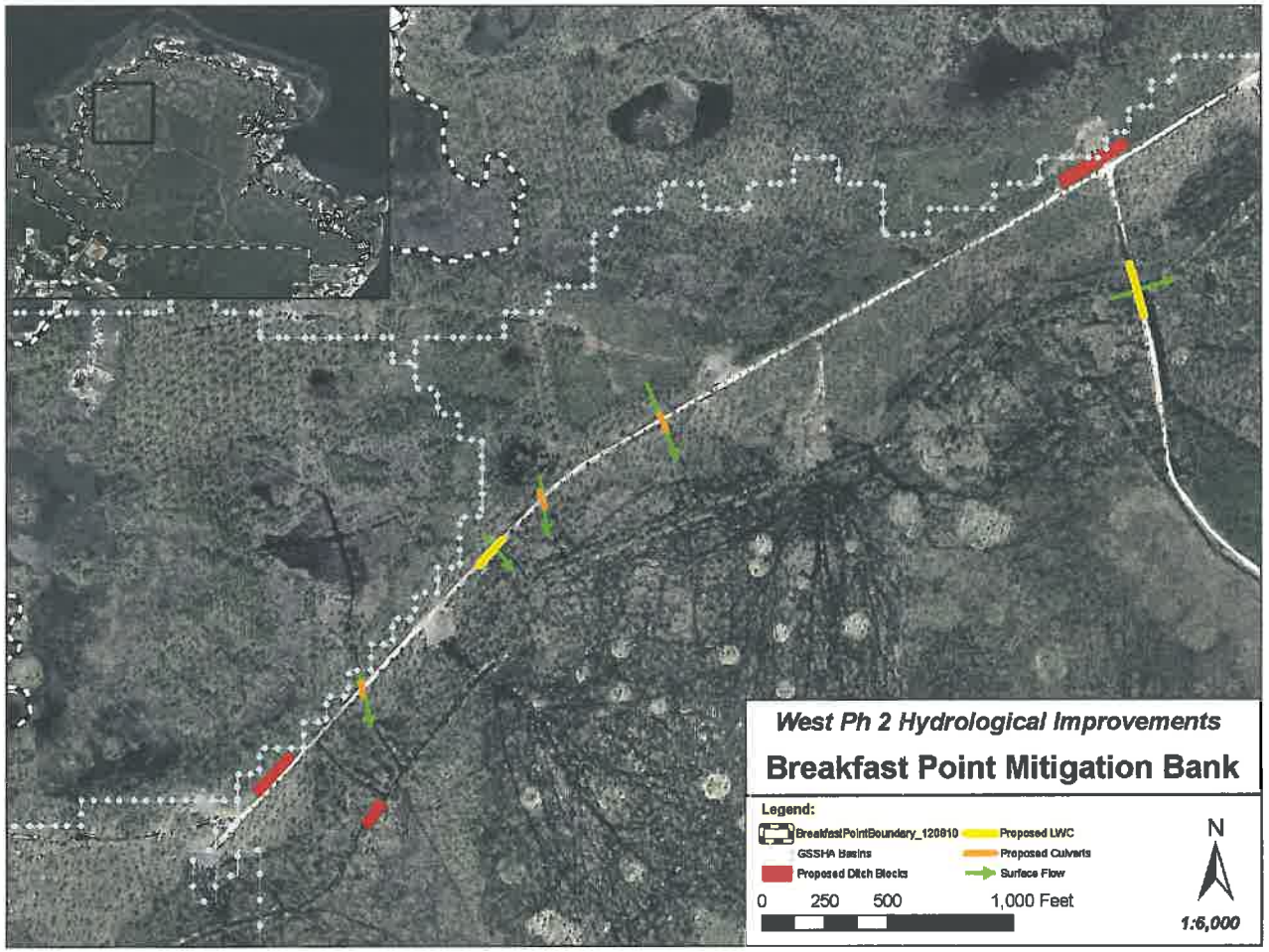

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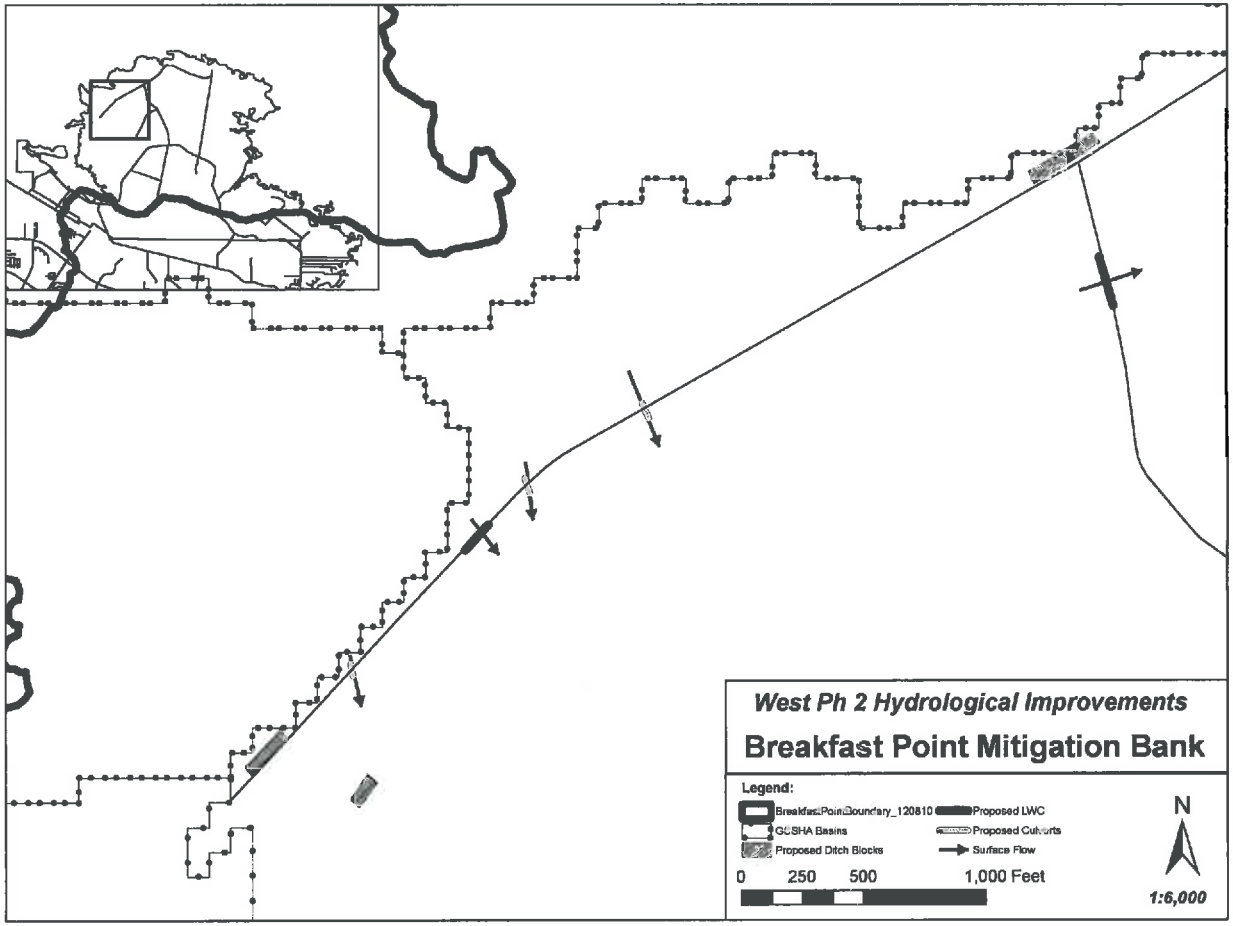
EXHIBIT 6
LOCATIONS OF PROPOSED CULVERTS/DITCH BLOCKS/
LOW WATER CROSSINGS-PHASE 2 WEST

Project Number: BPMB
Drawn By: LFJ
Sheet Number: 6 of 11

Date: February 12, 2011
Scale: Not To Scale
Revision: 0



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BREAKFAST POINT MITIGATION BANK
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EXHIBIT 7
LOCATIONS OF PROPOSED CULVERTS/DITCH BLOCKS/
LOW WATER CROSSINGS-PHASE 2 WEST (B&W)

Project Number: BPMB
Drawn By: LFJ
Sheet Number: 7 of 11

Date: March 1, 2011
Scale: Not To Scale
Revision: 0

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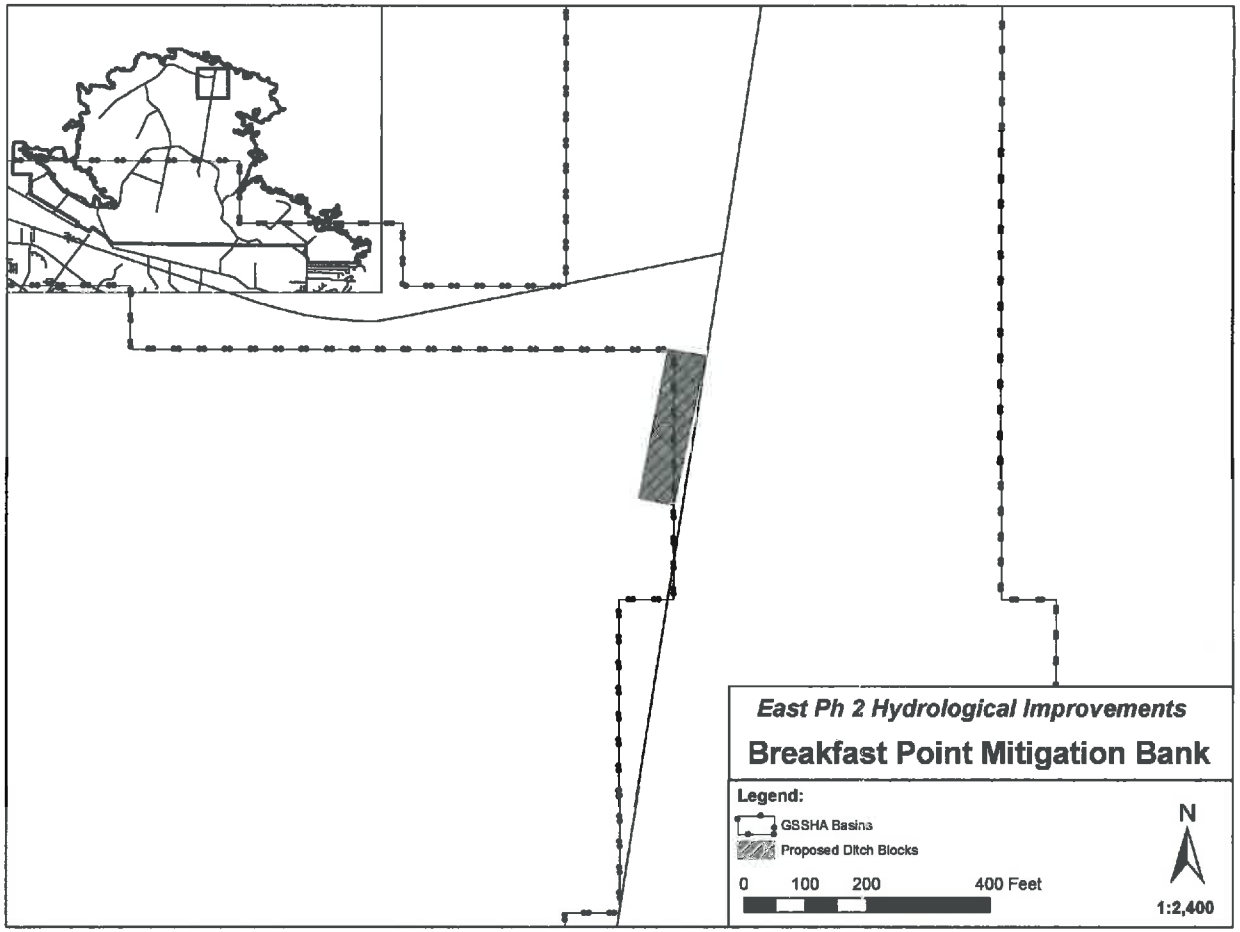
BREAKFAST POINT MITIGATION BANK
THE ST. JOE COMPANY
EXHIBIT 8
LOCATIONS OF PROPOSED CULVERTS/DITCH BLOCKS/
LOW WATER CROSSINGS-PHASE 2 EAST

Project Number: BPMB
Drawn By: LFJ
Sheet Number: 8 of 11

Date: February 12, 2011
Scale: Not To Scale
Revision: 0



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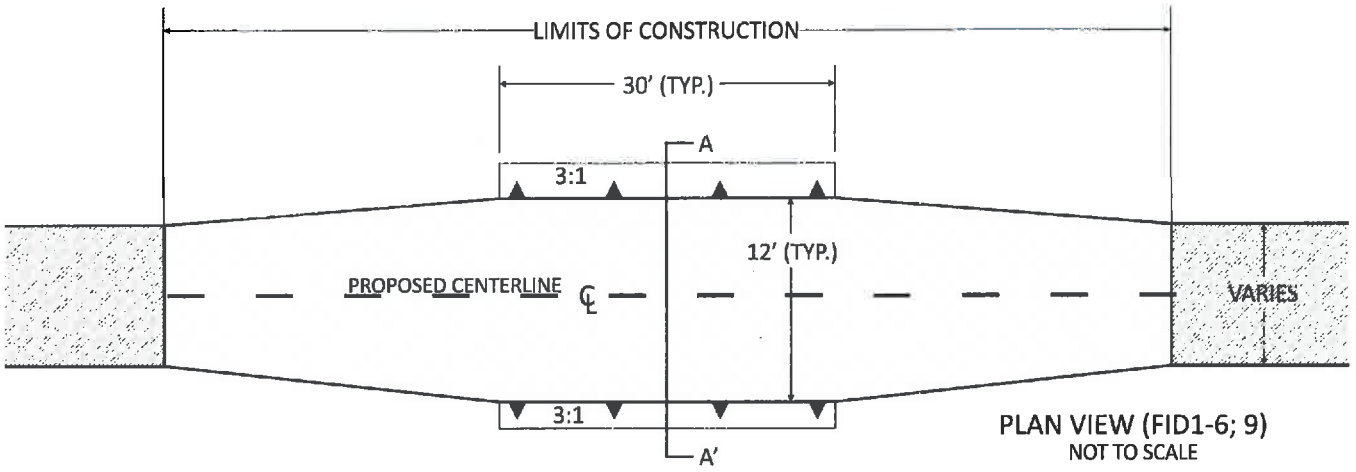
BREAKFAST POINT MITIGATION BANK
THE ST. JOE COMPANY
EXHIBIT 9
LOCATIONS OF PROPOSED CULVERTS/DITCH BLOCKS/
LOW WATER CROSSINGS-PHASE 2 EAST (B&W)

Project Number: BPMB
Drawn By: LFJ
Sheet Number: 9 of 11

Date: March 1, 2011
Scale: Not To Scale
Revision: 0



PLAN VIEW (FID1-6; 9)
NOT TO SCALE

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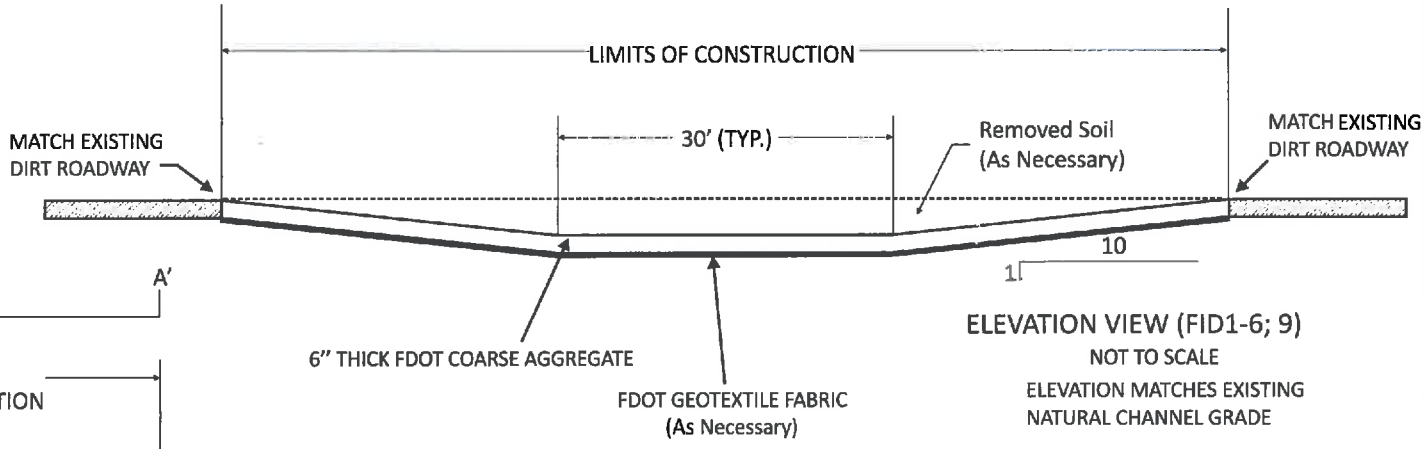
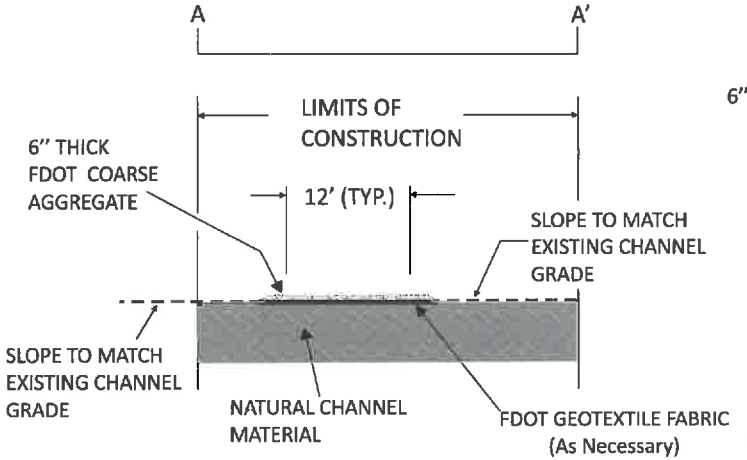


ELEVATION VIEW (FID1-6; 9)
NOT TO SCALE
ELEVATION MATCHES EXISTING NATURAL CHANNEL GRADE



PROFILE VIEW (FID1-6; 9)
NOT TO SCALE

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BREAKFAST POINT MITIGATION BANK
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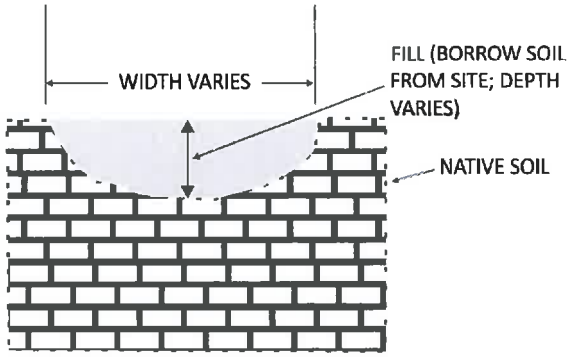
EXHIBIT 10

TYPICAL LOW WATER CROSSING

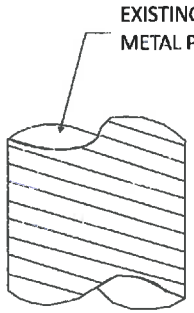
Project Number: BPMB
Drawn By: LFJ
Sheet Number: 10 of 11

Date: February 14, 2011
Scale: Not To Scale
Revision: 4



CROSS SECTION [PROPOSED DITCH BLOCKS]

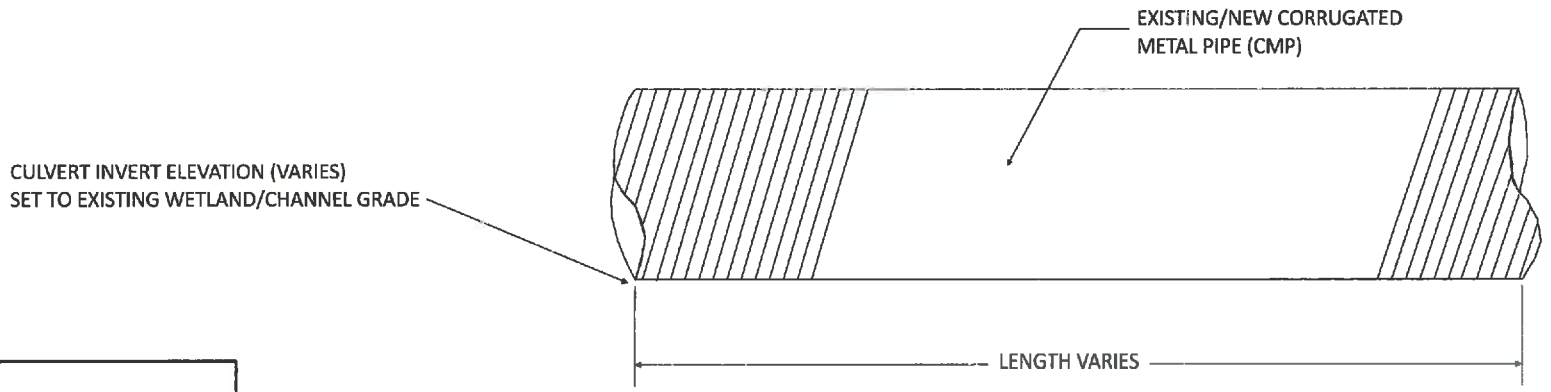
NOT TO SCALE



PLAN VIEW [PROPOSED CULVERT(S)]

NOT TO SCALE

Replacement culverts sized as original culverts. New culverts (12/13) 36 inch diameter.



ELEVATION VIEW [PROPOSED CULVERT(S)]

NOT TO SCALE

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EXHIBIT 11

TYPICAL CULVERT/DITCH BLOCK

Project Number: BPMB
Drawn By: LFJ
Sheet Number: 11 of 11

Date: February 14, 2011
Scale: Not To Scale
Revision: 3

ATTACHMENT F – MONITORING PLAN

Summary
Ecologic restoration of plant communities is dynamic and is expected to go through various successional stages until success is attained. The community targets are included in the permit Success Criteria, Attachment C and Figures 6 and 7. Annual monitoring provides quantitative and qualitative information to track progress toward the goals and as a basis for management decisions.

Ecological monitoring or sampling techniques as described in this monitoring plan allow for the objective determination of species composition, species richness, and proportional distribution for each of three main structural habitat forms (groundcover, shrubs and vines, and canopy). Further, this plan provides assessment methodologies for evaluating the hydrological improvements and prescribed fires.

I. Vegetation Monitoring

A. Quantitative Methods

The initial quantitative monitoring will be carried out, pre-restoration, in the late summer/fall and annually thereafter until success criteria are attained as specified in the permit. The primary methodology for describing changes in each plant community is a quantitative transect-based series of procedures to objectively measure changes in community structure. Community structural categories are evaluated and include groundcover, shrubs, and trees (with notes regarding vines and subcanopy when present). Specific quantitative methods for evaluating each category are described below.

1. Quantitative Transect Establishment

a) Identify and choose polygons to represent each community type. A particular community may not be contiguous throughout the site, and thus may be represented by more than one polygon. The most representative polygons for each type are chosen.

b) Within the representative polygons, establish one permanent 100 meter transect, as shown on the attached map (Figure F-1). All transects will be located and recorded on a GPS unit, marked with metal poles and photographed for visual reference.

2. Groundcover, Shrubs, and Vines

a) Sampling Point Setup - Establish sample points every 10 meters per transect, for a total of ten (10) sampling points per transect. For each transect, the first sampling point is located at 10 meters and the tenth point is located at 100 meters. Each point is georeferenced and permanently marked by inserting an iron stake.

b) Quadrat setup - Measure and apply three adjacent 1m X 1m quadrats (plots). Three quadrats are placed perpendicular to the transect at each of the ten sample points. In total, 30 quadrats are used to sample each transect. The plots are arranged in a rectangular sampling area of 3 square meters perpendicular to the transect. Each plot is photographed to provide visual support to the quantitative data collected. This methodology samples 3 square meters at each point for a total of 30 square meters per 100 meter transect. The organization of transects, points, quadrats and plots is shown in Figure F-2.

c) Quadrat data collection –

i. Identify all groundcover, shrub, and vine species in each quadrat and record species names on a data sheet (see 1.d. below for data collection methods for the species richness index, i.e. the number of species per transect).
ii. Identify the height of shrubs, if present, to determine whether they have been reduced to coppice.
iii. Estimate the coverage for each species to obtain percent cover by species using the following percentage classes: 100%, 75%, 50%, 25%, 12%, 6%, 3%. These classes represent successive divisions of the square by one-half (after 75%), and are readily and consistently applied in the field.
iv. Estimate the coverage for bareground/leaflitter/water using the same percentage classes as above.

d) Species Richness Count - Along the entire 6m X 100m transect, plant species will be recorded and will be counted towards the species richness index. These data will not be used for the relative measurement statiatics described below.

3. Trees

For the purposes of restoration and management of the plant communities found on this site, it is the density of trees is an important measure. Within this landscape, allowing the appropriate tree species to mature at the appropriate density will eventually result in the desired basal area and tree density of the target community. To record the change in the canopy resulting from management, a tenth-acre plot method will be used and is described below.

a) Tenth Acre Plot Setup

Established at 50 m measure of each transect (see Figure F-2) by measuring a circle with a radius of 37.2 ft. (11.34m). The area of a circle with this radius is equivalent to a tenth of an acre.

b) Tenth Acre Plot Data Collection

i. Count all trees identified within the tenth acre plot.

ii. Identify each tree species and measure the trunk using a diameter tape at breast height (or 1.5 m above the ground).

iii. Define and separate trees from the other vegetative categories as follows:

a. Trees include all woody plants (excluding typical shrub species such as titi that may become tree-like due to fire suppression) with a main trunk greater than 10 cm (4 in) diameter at breast height (1.5 m) and have a stem at least 3 m tall. Diameter at breast height (DBH) of trees is determined from trunk circumference measured 1.5 m above the ground.

b. Saplings include all other woody plants smaller than those measured in (a) above that typically develop into trees (excluding typical shrub species such as titi that may become tree-like due to fire suppression) such as cypress, tupelo, pines, sweet bay, swamp bay, loblolly bay and red maple and pines.

c) Calculate Trees Per Acre

To calculate the number of trees or saplings per acre the total number of trees or saplings measured per plot is multiplied by 10.

B. Plot Sampling Statistics Calculations for Relative Cover and Importance Values

1. Methodology

From the raw data and for each separate transect, sum separately:
(1) the % coverage of each species, or species group, such as exotics or herbaceous, graminoid, etc., from all plots
(2) the # of individuals (stems or clumps) of each species from all plots
(3) the total % cover of all species sampled in plots (i.e., 100% - % non-vegetated area)
(4) the #'s of individuals of all species sampled in plots

2. Relative Coverage (used in success measures for all flatwoods groundcover)

To calculate the **Relative Coverage**, divide the total coverage of each species or species group, by the total coverage of all species.

RC= (1)/(3)

3. Relative Density (for evaluating community similarity to targets)

To calculate the **Relative Density**, divide the total # of individuals of each species by the total #'s of individuals of all species

RD= (2)/(4)

4. Relative Frequency (for evaluating community similarity to targets) (5) Determine species frequency as the total # of sample plots that a species occurred in divided by total # of plots

(6) Sum species frequency for all species

To calculate the **Relative Frequency**, divide the frequency of each species by the total frequencies of all species.

RF= (5)/(6)

5. Importance Value Percentage (for evaluating community similarity to targets)
The **Importance Value Percent** is the sum of all Relative values for each species * 100.
Importance Value = (RC+RD+RF) * 100

C. Qualitative Monitoring.

The initial qualitative monitoring will be carried out pre-restoration and annually thereafter through the time period as specified in the permit. Qualitative monitoring includes walking transects to record species coverage, diversity and observations on the overall vegetative health, reproduction, distribution, and wildlife usage, as well as sightings of invasive exotics. The qualitative transects are depicted on the attached map, Figure F-1. The walking paths are designed to provide thorough coverage of all typical landscape/plant community types. Permanent points are established along the transect within each plant community traversed. Descriptive data and photos are taken at the points to show landscape changes annually. The qualitative transects are designed for observation and documentation of the change in plant communities at the landscape scale due to management.

Observations will be made for each segment of the transect representing a different community type. The specific parameters to be observed and recorded on the walking transects for each community type include the following:

1. Type of plant community sampled.
2. Date, time and weather conditions.
3. Estimate of aerial coverage of plants in the canopy, subcanopy and fire suppressed shrub strata and identification of the three dominant species in the canopy, subcanopy and fire suppressed shrub strata.
4. Estimated coverage of graminoids (grasses, sedges and rushes), forbs and shrubs in the groundcover.
5. Identification of the three dominant species in the groundcover by listing the top three with maximal coverage
6. Estimated abundance of introduced exotic species species based on the following scale: (1) occasional, 1-3% of a given area; (2) uncommon 4-5% (3) common, greater than 5% of a given area
7. Notes on the wildlife usage and natural history.

8. Note on whether a particular area has been planted in pines and if so, estimated density of planted pines.
9. Notes on surface waters and hydrologic indicators.
10. Notes on the general aspect of the site, fuel loads and how adaptive management techniques might be used to better move toward restoration target/goals.

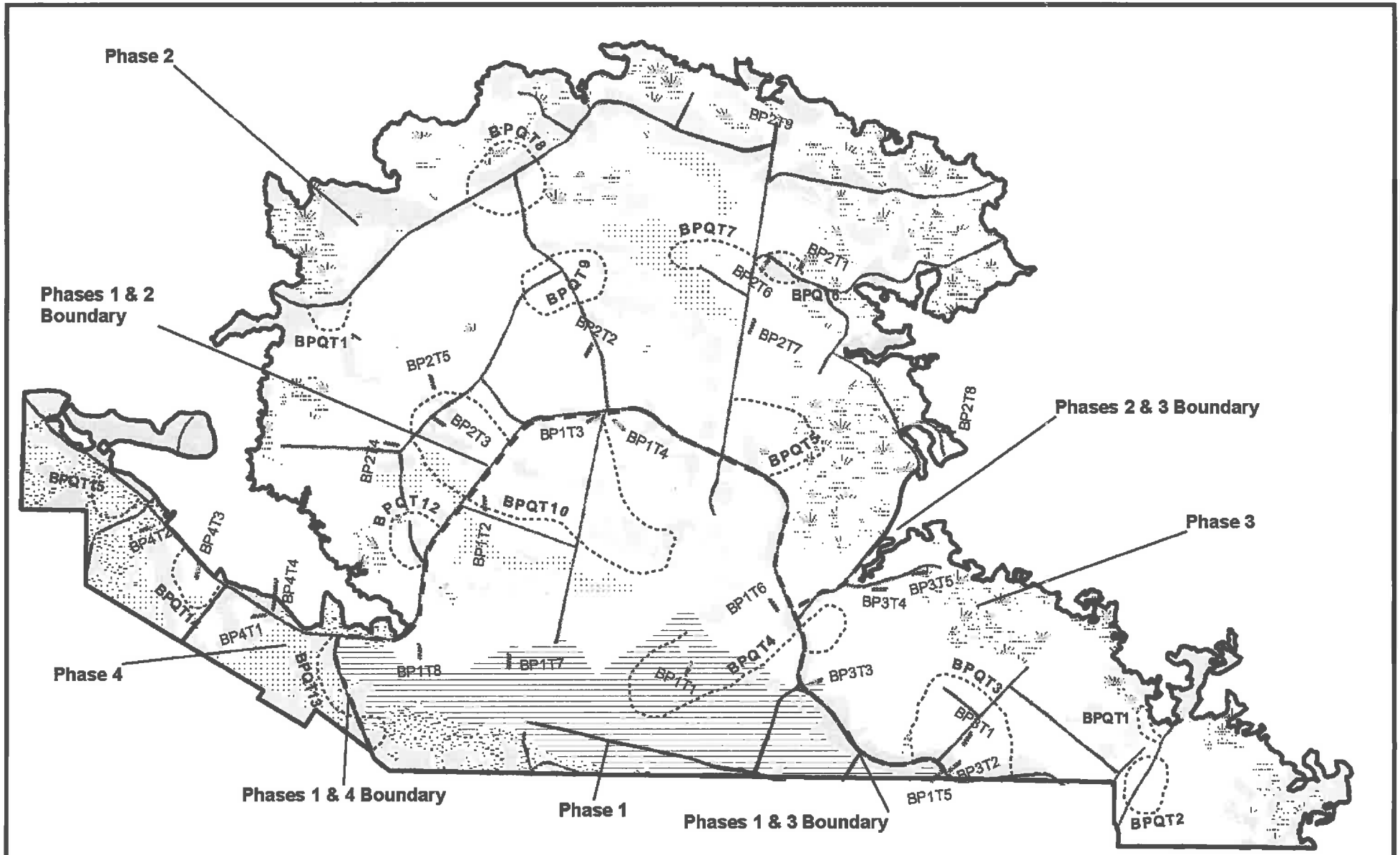
The observations collected as part of the qualitative measurements, photographs included will be summarized and included in the analysis of performance standards. This information will be included with the assessment of the performance standards and as support for the observations made of the quantitative measurements.

Reports

The annual report will summarize and review the Plot Sampling Statistics to assess management goals in relation to the achievement of final success criteria. From this assessment, identification of opportunities and recommendations for the use of adaptive management to further the restoration goals and achievement of final success criteria will be discussed in the conclusion of the annual report.

In January, the permittee shall submit an annual report that summarizes the yearly monitoring for success and an assessment of the degree to which the bank is attaining success. This report shall be submitted after completion of the vegetative monitoring. The following format will be used to report the monitoring and management at DSMB.

1. Executive Summary of Current Management and Report;
2. Project Overview;
3. Restoration and Maintenance Activities (last 12 months);
4. Table of Scheduled Tasks by Year;
5. Table Summarizing Credit Release Schedule;
6. Summary Table & Discussion of Community Requirements and Performance;
7. Standards per Phase;
8. Compliance of Hydrologic Improvements;
9. Summary of Quantitative and Qualitative Data (supporting data on CD);
10. Photographs of Qualitative and Quantitative Landscapes;
11. Semiannual reports;
12. Discussion and Conclusions (includes: progress toward goals, exceptional areas, data representativeness, management needs, success, points of interest, discussion of wildlife use, sustainability, other);
13. Map: Breakfast Point Mitigation Bank Location;
14. Map: Breakfast Point Mitigation Bank Annual Monitoring Overview;
15. Map: Breakfast Point Mitigation Bank Depicting Completed Tasks.



Legend

- BPMB Site Boundary
- Phase Boundaries
- Roads
- Quantitative Transects
- Qualitative Transects

0 1,350 2,700 5,400 Feet

N

1:32,400

Figure F-1 Monitoring Transect Map

Breakfast Point Mitigation Bank

Ecological Resource Consultants, Inc.

JJL 12-13-10
ERC #10-130

Plant Communities

- Coastal Basin Marsh (435.67 ac)
- Cypress Depression (202.42 ac)
- Cypress/MFW - Bog (442.58 ac)
- Coastal Flats (2,886.74 ac)
- Wet Prairie/Flatwoods (182.85 ac)
- Mesic Flatwoods 796.34 ac)

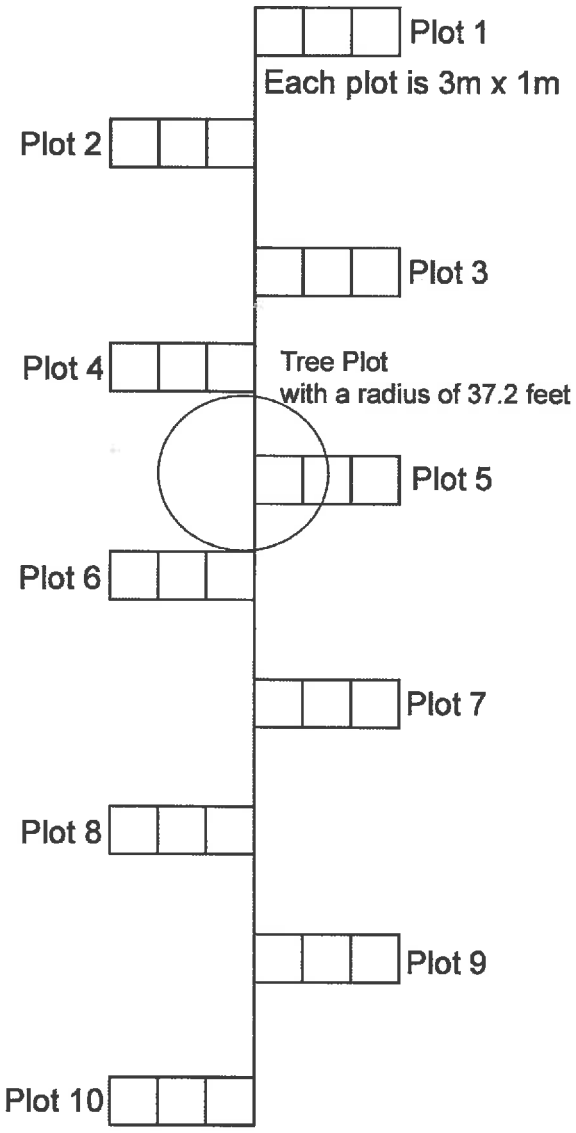


Figure F-2. Diagrammatic arrangement of 100 meter transect with ten, 3m x 1m plots, used to measure herbs and woody plants (shrubs) in the groundcover; with a circular tree sample plot with a radius of 37.2 feet, used to measure all woody plants (trees) with a woody stem 10 cm or greater in diameter at breast height.

Attachment G - Appropriate Species List by Community Type Breakfast Point Mitigation Bank

Scientific Name	Common Name	Community Types*						Federal Status	State Status
		MF	CF	WP/WF	C/MFW	CBM	CD		
Acer rubrum	Red maple		x	x	x		x		
Agalinis spp.	False foxglove	x	x	x					
Aletris lutea	Yellow colic-root		x	x					
Amphicarpum muhlenbergianum	Little blue maidencane	x	x	x	x				
Andropogon arctatus	**Pine-woods bluestem**		x	x				**N**	**LT**
Andropogon capillipes	Chalky bluestem	x	x						
Andropogon glomeratus	Bushy beardstem	x	x	x	x				
Andropogon virginicus	Broomsedge bluestem	x	x	x	x				
Aristida palustris	Longleaf threeawn		x	x	x				
Aristida simpliciflora	**Southern three-awned grass**		x	x				**N**	**LE**
Aristida spiciformis	Bottlebrush Threeawn	x	x	x					
Aristida stricta	Wiregrass	x	x	x					
Aronia arbutifolia	Chokeberry	x	x	x	x				
Asclepias lanceolata	Fen-flower milkweed		x	x	x				
Asclepias michauxii	Michaux's milkweed	x							
Asclepias viridula	**Southern milkweed**	x						**N**	**LT**
Aster spp. (incl. *Symphyotrichum*)	Asters	x	x	x					
Baccharis angustifolia	False-willow	x	x						
Baccharis halimifolia	Saltbush	x	x						
Bacopa spp.	Water hyssop		x		x	x			
Balduina uniflora	Oneflower honeycombhead		x	x	x	x			
Batis maritima	Saltwort								
Bidens mitis	Beggerticks		x	x	x		x		
Bigelowia nudata	Rayless goldenrod		x	x	x				
Borrichia frutescens	Sea oxeye								
Calamovilfa curtissii	**Curtiss' sandgrass**	x	x					**N**	**LT**
Carex verrucosa	Caric sedge		x	x	x	x	x		
Carphephorus odoratissimus	Deer tongue	x							
Cassia fasciculata	Partridge-pea	x							
Cassia nictitans	Sensitive briar	x							
Centella asiatica	Coinwort		x	x	x	x			
Chaptalia tomentosa	Sun-bonnets		x	x					
Chrysopsis spp.	Golden-asters	x							
Cladium jamaicense	Sawgrass		x		x	x	x		
Cleistes divaricata	**Spreading Pogonia**			x				**N**	**LT**
Clethra alnifolia	Sweet pepperbush		x	x	x				
Cliftonia monophylla	Black titi		x	x	x		x		
Coelorachis tuberculosa	**Florida jointtail grass**		x	x	x	x		**N**	**LT**
Conradina canescens	False rosemary	x							
Coreopsis nudata	Georgia tickseed		x	x	x				
Coreopsis spp.	Tickseeds	x	x	x	x				
Ctenium aromaticum	Toothache grass			x					
Cyperus spp.	Flat sedges	x	x	x	x	x			
Cyrilla racemiflora	White titi		x	x	x		x		
Desmodium strictum	Pineland beggarweed	x							
Desmodium incanum	Creeping beggarweed	x							
Dicanthelium scabriusculum	Woolly Panicum		x	x	x	x			
Dicanthelium spp.	Panicums	x	x	x	x	x			
Dichromena spp.	White-topped sedges		x	x					

Scientific Name	Common Name	Community Types*							
		MF	CF	WP/WF	C/MFW	CBM	CD	Federal Status	State Status
Diodia teres	Poor Joe	x							
Diodia virginiana	Virginia buttonweed	x	x	x	x	x	x		
Distichlis spicata	Saltgrass								
Drosera capillaris	Pink sundew		x	x	x				
Drosera intermedia	**Spoon-leaved sundew**			x	x			**N**	**LT**
Drosera tracyi	Gulf Coast sundew			x					
Eleocharis spp.	Spikerushes		x	x	x	x	x		
Eragrostis spp.	Lovegrass	x	x	x		x			
Erianthus giganteus	Sugarcane plumegrass		x	x	x	x	x		
Erigeron vernus	Robin's-plantain		x	x	x				
Eriocaulon compressum	Flattened pipewort		x	x	x				
Eriocaulon decangulare	Ten-angled pipewort		x	x	x				
Eriogonum tomentosum	Wild buckwheat	x							
Eryngium integrifolium	Blue-flower coyote thistle	x	x	x					
Eryngium baldwinii	Baldwin's coyote thistle	x	x	x					
Eupatorium spp.	Dog fennels	x	x	x	x	x			
Euphorbia inundata	Spurge	x	x	x					
Euphorbia telephioides	Telephus Spurge	x						**LT**	**LE**
Euthamia graminifolia	Flat-topped goldenrod	x	x	x	x	x			
Euthamia minor	Slender flat-topped goldenrod	x	x	x	x	x			
Fimbristylus spp.	Fringe-rushes	x	x	x	x	x			
Fraxinus caroliniana	Carolina ash				x		x		
Fuirena spp.	Umbrellagrasses		x	x	x	x			
Fuirena squarrosa	Hairy umbrellasedge		x	x	x	x			
Gaylussacia dumosa	Dwarf huckleberry	x							
Gaylussacia frondosa	Dangleberry		x						
Gaylussacia mosieri	Mosier's huckleberry		x	x					
Gelsemium spp.	yellow jessamine	x							
Gentiana pennelliana	Wiregrass gentian			x				**N**	**LE**
Gratiola spp.	Hedgehyssop	x		x					
Helenium spp.	Sneezeweed	x	x	x	x				
Helianthus spp.	Sunflowers	x		x					
Heterotheca subaxillaris	Camphor weed	x							
Hydrocotyle spp.	Water pennywort	x	x	x	x				
Hymenocallis henryae	**Panhandle spiderlily**		x	x	x	x		**N**	**LE**
Hypericum cistifolium	St. Peter's-wort		x	x	x				
Hypericum crux-andeae	St. Peter's-wort	x							
Hypericum fasciculatum	Sandweed		x	x	x				
Hypericum hypericoides	St. Andrew's cross	x							
Hypericum microsepala	St. Johns wort	x							
Hypericum tetrapetalum	St. Johns wort	x							
Hypoxis juncea	Common stargrass		x	x					
Ilex coriacea	Sweet gallberry			x	x		x		
Ilex glabra	Gallberry	x	x	x					
Ilex myrtifolia	Myrtle-leaved holly				x		x		
Ilex vomitoria	Yaupon	x							
Ipomoea sagittata	Morning glory		x			x			
Iris tridentata	Savannah iris		x	x					
Itea virginica	Virginia willow				x		x		
Iva frutescens	Marsh elder								

Scientific Name	Common Name	Community Types*						Federal Status	State Status
		MF	CF	WP/WF	C/MFW	CBM	CD		
Iva microcephala	Little marsh elder		x	x					
Juncus marginatus	Needlerush	x	x	x	x				
Juncus megacephalus	Large-headed rush		x	x	x	x			
Juncus polycephalos	Manyhead rush		x	x	x	x			
Juncus repens	Prostrate rush				x	x	x		
Juncus roemerianus	Black needlerush		x		x	x	x		
Kalmia hirsuta	Hairy wicky	x							
Lachnanthes caroliniana	Redroot		x	x	x				
Lachnocaulon anceps	Bog button		x	x	x	x			
Liatris spicata	Tall gayfeather		x	x	x				
Leersia hexandra	Cutgrass		x	x	x	x			
Leucothoe spp.	Dog-hobble/hurrah bush				x		x		
Lilaeopsis spp.	False-Lilly		x						
Lilium catesbaei	**Catesby lily**			x				**N**	**LT**
Limonium carolinianum	Sea-lavender								
Linum spp.	Flax	x	x	x					
Lobelia brevifolia	Lobelia		x	x					
Lobelia glandulosa	Lobelia		x	x	x				
Lophiola americana	Goldcrest		x	x	x				
Ludwigia maritima	Seaside plain seedbox	x	x	x					
Ludwigia pilosa	Hairy primrosewillow		x		x	x	x		
Lycopodium alopecuroides	Foxtail clubmoss		x	x					
Lyonia ferruginea	Rusty staggerbush	x							
Lyonia lucida	Fetterbush		x	x	x		x		
Magnolia virginiana	Sweetbay magnolia			x	x		x		
Mikania scandens	Climbing hempweed		x		x	x			
Muhlenbergia capillaris	Gulf muhly grass	x							
Myrica cerifera	Wax myrtle	x	x	x	x	x	x		
Myrica heterophylla	Bayberry		x	x	x				
Myrica inodora	Odorless wax myrtle			x					
Nymphaea odorata	fragrant waterlilies				x	x			
Nyssa sylvatica var. biflora	swamp tupelo						x		
Nyssa ursina	bear tupelo		x	x	x		x		
Osmunda cinnamomea	Cinnamon fern		x	x	x		x		
Osmunda regalis	Royal fern		x	x	x		x		
Oxypolis filiformis	Dropwort		x	x	x				
Panicum anceps	peaked Panicum	x	x	x	x				
Panicum hemitomon	Maidencane		x	x	x	x	x		
Panicum verrucosum	Warty Panicum	x	x	x	x	x	x		
Panicum virgatum	Switchgrass	x	x	x	x	x			
Paspalum distichum	Knotgrass					x			
Persea palustris	Swamp bay		x	x	x		x		
Physostegia godfreyi	**Apalachicola dragonhead**		x					**N**	**LT**
Pieris phyllyreifolia	Vine wicky		x	x	x		x		
Pinguicula lutea	**Yellow butterwort**			x				**N**	**LT**
Pinus elliottii	Slash pine	x	x	x					
Pinus palustris	Longleaf pine	x							
Platanthera ciliaris	**Yellowfringed orchid**			x				**N**	**LT**
Platanthera integra	**Yellow fringeless orchid**			x				**N**	**LE**
Platanthera nivea	**Snowy orchid**			x				**N**	**LT**

Scientific Name	Common Name	Community Types*							
		MF	CF	WP/WF	C/MFW	CBM	CD	Federal Status	State Status
Pluchea odorata	Salt marsh fleabane	x	x	x	x	x			
Pluchea rosea	Perennial marsh fleabane		x	x	x	x			
Pogonia ophioglossioides	**Rose Pogonia**			x				**N**	**LT**
Polygala cruciata	Drumhead			x					
Polygala cymosa	Tall milkwort			x	x				
Polygonum hydropiperoides	Wildwater-pepper		x		x				
Pontederia cordata	Pickerelweed		x		x	x	x		
Proserpinaca palustris	Marsh mermaid weed		x		x	x	x		
Proserpinaca pectinata	Combleaf mermaid weed		x		x	x	x		
Pteridium aquilinum	Bracken fern	x							
Pterocaulon pycnostachyum	Blackroot	x							
Quercus myrtifolia	Myrtle oak	x							
Quercus pumila	Running oak	x							
Quercus virginiana var. geminata	Sand live oak	x							
Rhexia alifanus	Meadowbeauty	x	x	x	x				
Rhexia lutea	Meadowbeauty		x	x					
Rhexia mariana	Pale meadowbeauty	x	x	x					
Rhus copallina	Winged sumac	x							
Rhynchospora corniculata	Beakrush		x		x	x	x		
Rhynchospora filifolia	Beakrush			x	x				
Rhynchospora spp.	Beakrush	x	x	x	x	x	x		
Rubus argutus	Blackberry	x	x	x					
Rubus trivialis	Dewberry	x							
Rumex sp.	Docks	x							
Sabal palmetto	Cabbage palm	x	x						
Sabatia spp.	Marsh pinks		x	x	x	x			
Sagittaria graminea	Grass-leaf Arrowhead		x	x	x	x	x		
Sagittaria lancifolia	Lance-leaf arrowhead		x	x	x	x	x		
Salicornia virginica	Perennial glasswort								
Sarracenia flava	Trumpets			x	x				
Sarracenia psitticina	**Parrot pitcher plant**			x	x			**N**	**LT**
Saururus cernuus	Lizard's tail		x		x	x	x		
Schizachyrium scoparium	Bluestems	x	x						
Schoenus nigricans	Black sedge		x						
Scleria baldwinii	Nutrushes		x	x	x	x			
Serenoa repens	Saw palmetto	x	x						
Sisyrinchium spp.	Blue-eyed grass	x	x	x					
Smilax auriculata	Greenbrier	x							
Smilax laurifolia	Bamboo-vine	x	x	x	x		x		
Smilax pumila	Sarsaparilla vine	x							
Solidago rugosa	Wrinkled goldenrod	x	x						
Solidago sempervirens	Seaside goldenrod		x						
Solidago odorata	Goldenrods	x							
Spartina alterniflora	Cord grass								
Spartina bakeri	Cord grass								
Spartina patens	Marsh-hay cord grass		x			x			
Spiranthes spp.	Ladies tresses	x	x	x	x				
Sporobolus floridana	Florida dropseed	x		x					
Sporobolus junceus	Pinewoods dropseed	x							
Sporobolus virginicus	Seashore dropseed							**N**	**LE**

Scientific Name	Common Name	Community Types*							
		MF	CF	WP/WF	C/MFW	CBM	CD	Federal Status	State Status
Stillingia aquatica	Corkwood			x	x	x	x		
Stillingia sylvatica	Queensdelight	x							
Taxodium ascendens	Pond cypress		x	x	x	x	x		
Toxicodendron radicans	Poison ivy	x	x						
Utricularia spp.	Purple bladderwort		x	x	x	x	x		
Vaccinium elliottii	Elliot's blueberry	x							
Vaccinium myrsinites	Low bush blueberry	x							
Verbesina chapmanii	**Chapman's crownbeard**		x	x	x			**N**	**LT**
Viburnum nudum	Possumhaw				x		x		
Viola lanceolata	Bog white violet		x	x					
Vitis rotundifolia	Muscadine grape	x	x						
Woodwardia virginiana	Virginia chain fern		x	x	x		x		
Xyris spp.	Yellow-eyed grasses	x	x	x	x	x	x		

**MF=Mesic flatwoods; CF=Coastal flatwoods; WP/WF=Wet prairie/wet flatwoods; CBM=Coastal Basin marsh; CD depression = cypress*

Attachment H: BPMB Credit Ledger

Total Potential Credits = 1,011.28

Coastal Flatwoods PotentialCredits= 437.37

Release Mod./ Impact Permit	EMA (1,2,-)	Permit Date	Issuing Agency	Ledger Modification	Credits Added	Credits Used	Balance	Notes
Release Phase I			**DEP**	**3/17/06**	**11.31**		**11.31**	**CE, Financial**
Release Phase II			**DEP**	**3/17/06**	**21.31**		**32.62**	**CE, Financial**
03-244084-002	1	5/13/06	DEP	5/12/06		6.48	**26.14**	St. Joe
03-209847-005	1	5/13/06	DEP	5/12/06		6.28	**19.86**	St. Joe
03-233723-002	1	6/3/06	DEP	5/12/06		8.6	**11.26**	St. Joe
03-0258023-003	1	11/28/06	DEP	2/13/07		0.21	**11.05**	St. Joe
03-0236383-001	1	4/20/07	DEP	5/10/07		6.58	**4.47**	St. Joe
03-0258023-006	1	3/16/07	DEP	12/13/07		0.96	**3.51**	Bay School k-8
03-0258023-009	1	5/8/07	DEP	12/13/07		0.4	**3.11**	St. Joe
Release Phase I			**DEP**	**3/25/08**	**22.61**		**25.72**	**Harvest**
Release Phase I			**DEP**	**3/25/08**	**16.96**		**42.68**	**Burn**
Release Phase I			**DEP**	**3/25/08**	**11.31**		**53.99**	**Year 1 Success**
			MAJOR MODIFICATION					
Pre-bank Permits 03-0215227-001 03-0199808-004 03-010081-001 03-0201291-001 03-0183309-001	N/A	10/26/2005	DEP	xx		29.36	*24.63*	Acreage for pre-bank permits deducted, as credits, from Major Modification UMAM credits to establish new ***balance***.
					4/8/11 balance		***24.63***	

Wet Prairie/Flatwoods Potential Credits = 301.88

Release Mod./ Impact Permit	EMA (1,2,-)	Permit Date	Issuing Agency	Ledger Modification	Credits Added	Credits Used	Balance	Notes
Release Phase I			**DEP**	**3/17/06**	**7.89**		**7.89**	**CE, Financial**
Release Phase II			**DEP**	**3/17/06**	**14.87**		**22.76**	**CE, Financial**
Release Phase I			**DEP**	**3/25/08**	**15.78**		**38.54**	**Harvest**
Release Phase I			**DEP**	**3/25/08**	**11.83**		**50.37**	**Burn**
Release Phase I			**DEP**	**3/25/08**	**7.89**		**58.26**	**Year 1 Success**
03-0295306-001	1	11/30/09	DEP	4/6/10		0.18	**58.08**	Summit Enterprises
03-0296088-002	1	10/6/09	DEP	4/6/10		0.27	**57.81**	3A LLC
03-301209-002	1	XX/XX/XX	DEP	8/30/2010		0.1	**57.71**	YB, Panama City LLC
03-0303064-001	1	10/22/2010	DEP	12/8/2010		0.32	**57.39**	New Cingular PCS, LLC
03-0302135-001	1	xx/xx/xx	DEP	12/8/2010		0.2	**57.19**	New Cingular PCS, LLC
			MAJOR MODIFICATION					
Pre-bank Permits 03-0215227-001 03-0199808-004 03-010081-001 03-0201291-001 03-0183309-001	N/A	10/26/2005	DEP	4/8/2011		25.87	*31.32*	Acreage for pre-bank permits deducted, as credits, from Major Modification UMAM credits to establish new ***balance***.
					4/8/11 balance		***31.32***	

Attachment H (con't): BPMB Credit Ledger

Cypress/Mixed Forested Potential Credits = 272.03

Release Mod./ Impact Permit	EMA (1,2,-)	Permit Date	Issuing Agency	Ledger Modification	Credits Added	Credits Used	Balance	Notes
Release Phase I			**DEP**	**3/17/06**	**7.10**		**7.10**	**CE, Financial**
Release Phase II			**DEP**	**3/17/06**	**13.38**		**20.48**	**CE, Financial**
Release Phase I			**DEP**	**3/25/08**	**14.20**		**34.68**	**Harvest**
Release Phase I			**DEP**	**3/25/08**	**10.65**		**45.33**	**Burn**
Release Phase I			**DEP**	**3/25/08**	**7.10**		**52.43**	**Year 1 Success**
			MAJOR MODIFICATION					
Pre-bank Permits 03-0215227-001 03-0199808-004 03-010081-001 03-0201291-001 03-0183309-001	N/A	10/26/2005	DEP	4/8/2011		32.1	*20.33*	Acreage for pre-bank permits deducted, as credits, from Major Modification UMAM credits to establish new ***balance***.
					4/8/11 balance		***20.33***	

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