Supporting Technical Documentation
for
West Bay to East Walton Regional General Permit
Environmental Assessment/Statement of Findings
and
Ecosystem Management Agreement Intent to Issue

Submitted in Support of Issuance of:

U.S. Army Corps of Engineers Regional General Permit and
Florida Department of Environmental Protection
Ecosystem Management Agreement

PREPARED FOR:

THE ST. JOE COMPANY
1650 Prudential Drive, Suite 400
Jacksonville, Florida 32207

PREPARED BY:

WILSONMILLER, INC.
1441 Maclay Commerce Boulevard, Suite 101
Tallahassee, Florida 32312

SUBMITTED TO:

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
160 GOVERNMENT CENTER
PENSACOLA, FLORIDA 32501-5794

U.S. ARMY CORPS OF ENGINEERS
PANAMA CITY REGULATORY FIELD OFFICE
475 HARRISON AVENUE, SUITE 202
PANAMA CITY, FLORIDA 32401

January 9, 2004

Appendix C
Conservation Units: Analysis and Justification for Selection

Appendix C Table of Contents

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

Acronym List

BEST	St. Andrew Bay Environmental Study Team
CAMA	Coastal and Aquatic Managed Areas
CARL	Conservation and Recreation Lands
CERCLA	Comprehensive Environmental Resource Compensation and Liability Act
CFR	Code of Federal Regulations
Corps	U.S. Army Corps of Engineers
DOF	Florida Division of Forestry
DOQQ	Digital Orthophoto Quadrangle
EFH	Essential Fish Habitat
ELMR	Estuarine Living Marine Resources
EMA	Ecosystem Management Agreement
EPA	U.S. Environmental Protection Agency
ERATools™	Environmental Resource Analysis software
FAC	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
FDOT	Florida Department of Transportation
FEMA	Federal Emergency Management Agency
fgdl	Florida Geodetic Data Library
FIRM	Flood Insurance Rate Maps
FLUCFCS	Florida Land Use and Forms Classification System
FLUM	future land use map
FMC	Fishery Management Council
FMRI	Florida Marine Research Institute
FNAI	Florida Natural Areas Inventory
FWC	Florida Fish and Wildlife Conservation Commission
FWCA	Federal Wildlife Coordination Act
GIS	Geographic Information Systems
ICW	Intracoastal Waterway
IP	Individual Permit (Corps, Section 404)
IWHRS	FWC Integrated Wildlife Habitat Ranking System
MSFCMA	Magnuson-Stevens Fishery Conservation and Management Act
NGVD	National Geodetic Vertical Datum
NMFS	National Marine Fisheries Service

NP	Nationwide Permit
NRCS	Natural Resource Conservation Service
NWFWMD	Northwest Florida Water Management District
NWI	National Wetlands Inventory
OFW	Outstanding Florida Water
OSW	Other surface waters
RCRA	Resource Conservation and Recovery Act
RGP	Regional General Permit
SAV	Submerged aquatic vegetation
SHCA	Strategic Habitat Conservation Area
SHWL	seasonal high water level
SR	State Route
SSURGO	NRCS Soils Data
SWIM	Surface Water Improvement and Management
USDA	U.S. Department of Agriculture
FWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WRAP	Corps Wetlands Rapid Assessment Procedure

1 INTRODUCTION

As part of the development and approval of the U.S. Army Corps of Engineers (the Corps) Regional General Permit (RGP) process and the Florida Department of Environmental Protection (FDEP) Ecosystem Management Agreement (EMA) certification, conservation units have been evaluated and selected within the RGP/EMA project area for the purposes of conservation; mitigation for impacts to natural resources, primarily wetlands, within the RGP/EMA project area; and passive recreational activities. The West Bay to East Walton RGP and EMA have been cooperatively developed and approved by representatives from an interagency team, including the Corps, FDEP, U.S. Fish and Wildlife Service (FWS), National Marine Fisheries Service (NMFS), U.S. Environmental Protection Agency (EPA), Northwest Florida Water Management District (NWFWMD), The St. Joe Company, and WilsonMiller, Inc. to address the area's existing and anticipated development pressures.

This document, which is Appendix C to the West Bay to East Walton RGP/EMA (herein referred to as the RGP/EMA), provides necessary technical documentation in support of issuance of the RGP/EMA by describing the conservation unit selection process and the conservation units themselves. Appendices A and B to the RGP/EMA also provide technical documentation in support of issuance of the RGP/EMA by providing the permit documents and mitigation plans for the Breakfast Point and Devil's Swamp Mitigation Banks.

WilsonMiller evaluated the proposed RGP and EMA areas from a landscape perspective to identify areas that would be good candidates for conservation units. The conservation units presented in this document were then selected by the interagency team based on evaluation of each unit's existing ecological and hydrological health, regional significance, and restoration potential. Table 1-1 rates each conservation unit on the identified four ecological criteria described in Section 3. To come up with the ratings, the conservation units have been compared with each other and with the entire RGP area.

Table 1-1. Potential Ratings for the Conservation Units on the Ecological Criteria

	Ecological Criteria			
Conservation Unit	**Regional Significance**	**Biodiversity and T&E Species**	**Water Quality**	**EFH and Living Marine Resources**
Cypress and Wet Pine Flats	H	M	VH	H
Lake Powell Headwaters	VH	H	VH	VH
Point Washington State Forest	H	VH	M	H
Salamander Triangle	H	VH	M	L
Side Camp Road	H	M	H	H
South American Swamp	H	VH	VH	L
Southwest West Bay	H	VH	H	VH
Ward Creek	H	VH	VH	VH
Wildlife Corridor	H	VH	M	M
Breakfast Point Peninsula	VH	H	M	VH

The structure for the evaluation and selection of the conservation units – rationale, approach, criteria, and reporting format – was modified from the Federal Areas of Heightened Concern in Santa Rosa County, which was cooperatively prepared by representatives from the Corps, EPA, FWS, NMFS, and the National Park Service (Corps et al. 2001). Comprehensive data analyses were conducted using the geographic information systems (GIS) ERA Tools software developed by FDEP.

2 GENERAL DESCRIPTION OF PROJECT AREA

The RGP/EMA project area, including the two mitigation banks, is approximately 47,905 acres in southern Bay and Walton Counties, located south of the Intracoastal Waterway, north of the Gulf of Mexico, between Choctawhatchee Bay on the west and West Bay on the east (Figure 2-1). Section 5 presents the results of the data analyses using GIS ERATools™ software (FDEP date?) for the entire RGP project area. These results enable a comparison of the conservation units with the RGP project area, and thus a more complete evaluation of the appropriateness of the selected conservation units, and less directly, the mitigation banks as the designated areas to mitigate for impacts from development within the RGP project area.

Tables 2-1 and 2-2 present federally listed, state-listed, and non-listed animal and plant species, respectively, that could potentially occur within the RGP/EMA project area. These tables were developed using species lists provided in the *26 Ecological Communities of Florida* (U.S. Department of Agriculture Natural Resources Conservation Service [NRCS] 1989), results of WilsonMiller field surveys, Florida Natural Areas Inventory (FNAI) element occurrence data (FNAI 2003), and WilsonMiller professional ecologist expertise. Many of these species will likely benefit by the preservation and eventual restoration of the conservation units to the indicated historical ecological communities and by the restoration of the Breakfast Point and Devil's Swamp Mitigation Banks.

In accordance with the goal of watershed-level planning, the interagency team located conservation units within all four watershed sub-basins within the RGP/EMA project area (Figures 2-2 and 2-3). These sub-basins are defined as West Bay Mitigation, Lake Powell in Basin Mitigation, Devil's Swamp Mitigation, and In Basin Mitigation. In addition, the conservation units form a continuous connection from east to west across the RGP/EMA project area and encompass as many significant environmental features as possible, such as important wildlife habitat, natural communities, high quality wetlands, and surface flow connections with Lake Powell and West Bay. Within the RGP/EMA project area, the selected conservation units are, in alphabetical order:

Cypress and Wet Pine Flats Conservation Unit
Breakfast Point Peninsula Conservation Unit
Lake Powell Headwaters Conservation Unit
Point Washington State Forest Conservation Unit
Salamander Triangle Conservation Unit
Side Camp Road Conservation Unit
South American Swamp Conservation Unit
Southwest West Bay Conservation Unit
Ward Creek Conservation Unit
Wildlife Corridor Conservation Unit

Figure 2-1 presents the conservation units within the project area and shows their locations, sizes, and relationships to each other and to surrounding features, such as water bodies and roads. Sections 5 and 6 describe the RGP and EMA project areas, respectively, and present the results of the ERATools™ data analyses; Sections 7 through 16 are conservation unit-specific sections that describe the conservation units and present the results of the ERATools™ data analyses. The respective ERATools™ report is included at the end of each section.

3 ECOLOGICAL CRITERIA

To aid in evaluating and selecting the conservation units, ecological criteria were developed to define and address the issues of utmost concern. These criteria focused the analyses and subsequent ratings of the conservation units. The ecological criteria, which were modified from the Corps et al. (2001) by the project interagency team, are:

Criterion 1: Regional Significance: This criterion addresses each conservation unit's ecological importance within the project area relative to the other proposed conservation units and to lands not proposed as conservation units. Issues considered include the unit's position and influence in the landscape relative to identified environmentally, culturally, economically, and ecologically significant features within a 2-mile and a 5-mile radius around the unit. Regional significance may be enhanced by linkages/corridors and large landscapes. This ecological criterion is somewhat dependent on the other criteria – consistently high ratings for the other criteria indicate regional significance.

Criterion 2: Biodiversity: This criterion addresses the variety of living organisms considered at all levels of organization, including the genetic, species, and higher taxonomic levels, and the variety of habitats and ecosystems, as well as the processes occurring therein. This criterion considers endemic, rare, threatened, and endangered species occurrence and the existence and health of suitable habitat for such plant and animal species. This criterion also evaluates whether the habitats within the unit are restorable to natural conditions; and the connectedness of the unit with other units, publicly managed lands, and identified ecologically significant lands.

Criterion 3: Water Quality: This criterion addresses the connectedness of the conservation unit with water supplies, water bodies, and watersheds and the conservation unit's role in protecting the quality of these water sources and hence the ability of the water systems to provide benefits to area ecosystems. This criterion directly and indirectly affects criterion 4.

Criterion 4: Essential Fish Habitat (EFH)and Living Marine Resources: This criterion addresses the relationship of the conservation unit with EFH and all other living marine resources that may not be included in EFH. EFH was designated under the 1996 amendments to the Magnuson-Stevens Fishery Conservation and Management Act. EFH is important in sustaining the waters and substrate necessary for fish spawning, breeding, feeding, and/or growth to maturity. Living marine resources address all biological resources that require any part of the marine ecosystem to complete their life cycle and the marine ecosystem these resources require. These marine ecosystems include, but are not limited to, estuaries, marshes, seagrasses, and estuarine bottoms.

Appendix C-1 provides an in-depth description of each ecological criterion, including, but not limited to, the criterion definition, rationale for selecting the criterion, questions used to guide the assessment of the conservation unit, data used in the assessment of the unit, and guidance for rating the conservation unit.

4 CONSERVATION UNIT SELECTION PROCESS

The interagency team used their professional expertise, knowledge of the Project area, and evaluation of multiple data sets and of 1999 aerial photographs to select the proposed conservation units. This evaluation and selection process was cooperative and iterative; as new information became available (e.g., historical aerial photographs, future land use plans, results of species surveys), the boundaries of the conservation units were revised and/or created. This process also satisfied the Corps' and FDEP's requirement for minimization of impacts to wetlands (Hambrick 2003).

WilsonMiller used GIS technology and the FDEP-developed ERATools software™ to evaluate numerous data sets relating to the ecological criteria; these data sets included, but were not limited to, land uses, soils, recorded occurrences of listed species and high quality habitats, publicly managed lands, wetlands, and water quality from several local, state, and federal public and private sources, including FDEP, FNAI, NWFWMD, Florida Fish and Wildlife Conservation Commission (FWC), Florida Department of Forestry, NRCS, FWS, The St. Joe Company, and others. Figures 4-1 through 4-3 present the results of some of these data analyses. Appendix C-2 provides a more detailed explanation of the contents and methodology of selected data sets and GIS data analyses. The respective ERATools™ report is included at the end of each section.

Figure 4-1 indicates the natural communities (NRCS Ecological Communities; NRCS 1989) that potentially historically occurred in the RGP/EMA project area. NRCS ecological communities are assigned based on soil types and may also indicate restoration potential for these areas. The conservation units encompass all the ecological communities present within the RGP/EMA project area, except scrub which occurs only along the coast. The conservation units also encompass all four FNAI-designated under-represented natural communities – seepage slopes, scrub, sandhill, and pine flatwoods (Figure 4-1). Pine plantation and associated ditching and roads constitute the primary disturbances to lands within the conservation units.

Figures 4-2 and 4-3 show wetland locations, types, and extents. Figure 4-2 shows the NWI wetland boundaries, and Figure 4-3 shows Corps' wetland jurisdictional boundaries estimated using a method developed and approved by the interagency team (Appendix C-2).

The interagency team representatives also supported the conservation unit evaluation process with direct observation of field conditions within the units and elsewhere throughout the RGP/EMA project area.