

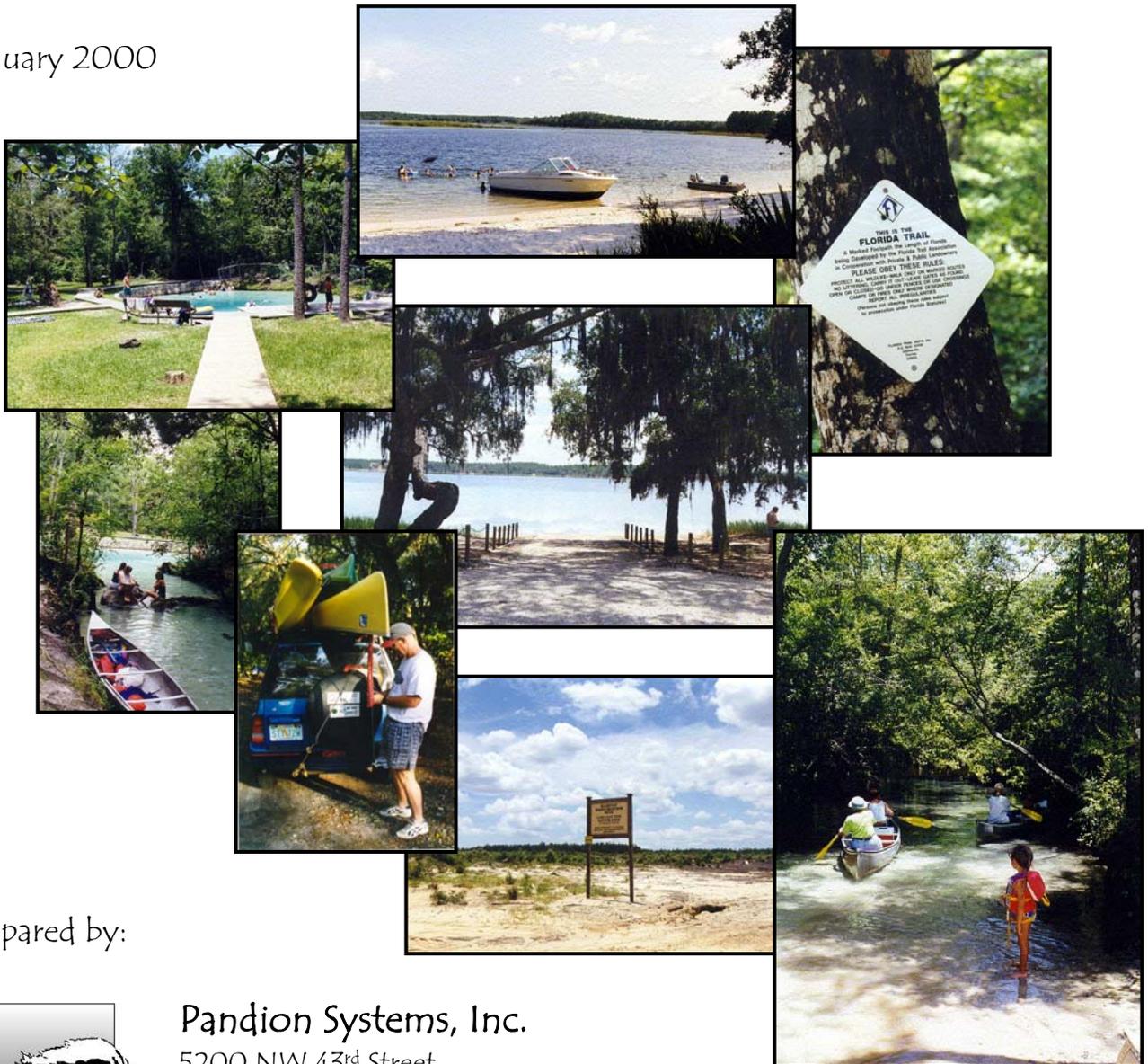
FINAL REPORT:

RECREATION RESOURCE INVENTORY AND EVALUATION OF THE ECONFINA CREEK WATER MANAGEMENT AREA



PREPARED FOR:
The Northwest Florida Water Management
District (NWFWM-D)

January 2000



Prepared by:



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EXECUTIVE SUMMARY

Introduction

The Econfina Creek Water Management Area (ECWMA) is a unique resource for the Northwest Florida Water Management District (NFWFMD) and its constituents. Located in Bay, Jackson, and Washington counties, its lands have been acquired by NFWFMD primarily for water resource protection and preservation as well as aquifer recharge purposes. Initially, land within ECWMA was acquired through the *Save Our Rivers* land acquisition program; however, the vast majority was acquired through the *Preservation 2000* land acquisition program.

ECWMA is a matrix of natural and altered communities. The area includes the Econfina Creek and its associated spring runs and banks, as well as upland areas that include karst upland lakes. NFWFMD now owns and manages 37,281 acres of property within ECWMA, which includes a few private holdings. Historically, much of ECWMA has been privately owned and managed for timber production by companies such as St. Joe Land & Development and Rosewood Timber Company. Currently, the area is managed as a Type II Wildlife Management Area for a variety of hunting and recreational activities. Other primary recreational uses include canoeing, swimming, fishing, motor boating, hiking, horseback riding, and camping.

NFWFMD has a statutory requirement to provide resource-based recreational opportunities that are not in conflict with the main purposes of protecting and preserving the water resources of the area as well as restoring and monitoring natural communities. NFWFMD faces many challenges in providing these recreational opportunities, particularly in offering activities that are appropriate to the area and curtailing potentially detrimental activities. Because of this, NFWFMD has embarked on a recreational and natural resource inventory and evaluation to determine suitable management directions for ECWMA in Bay, Jackson, and Washington counties. The stated objectives of this project are to:

1. Analyze NFWFMD property on Econfina Creek to determine suitable lands and water bodies for sustainable resource-based recreational activities.
2. Identify factors that limit recreational activities both individually and collectively.
3. Recommend levels and types of use on a site-specific basis that (a) meet expected demand to the greatest extent possible, (b) provide quality recreational experiences, and (c) avoid degradation of natural systems.
4. Recommend areas in which recreational use should be eliminated or held to minimal levels.
5. Estimate current and expected demand for recreational use of NFWFMD lands.
6. Recommend design standards that will allow NFWFMD to provide recreational opportunities consistent with the levels recommended above.
7. Recommend strategies or procedures to monitor proposed uses in the context of an overall land management program.
8. Recommend standards to be monitored when changes associated with recreation may be considered to be adverse to NFWFMD's primary mission.

Methods/Approach

The Visitor Experience and Resource Protection (VERP) framework, developed by the National Park Service and currently being used by the Florida Park Service, was used to develop recommendations for resource-based recreation on ECWMA. This framework is widely accepted in dealing with recreational issues of natural areas such as wildernesses, rural lands, designated parks, forests, and water management areas. VERP provides the logic and rationale for making decisions on interconnected recreation and natural resource management issues. The process also allows for revisions in management over time as more information on carrying capacity and ecological impacts is gathered. The following steps were taken to develop the VERP framework for ECWMA:

1. Collect and review existing ECWMA documents and information,
2. Form and meet with a joint recreational planning team,
3. Develop and implement a public involvement strategy,
4. Perform a reconnaissance of ECWMA natural resources and recreational areas,
5. Describe potential visitor experiences and allocate appropriate management zones, and
6. Select indicators, specify standards, and develop a monitoring plan for the management zones.

Monitoring plan implementation, management actions, and future plan adaptations will be decided and carried out by NFWFMD land managers.

Results

The purposes of ECWMA are to:

1. Protect and preserve the drinking water resources and supply of Panama City and the surrounding Bay County and Washington County areas.
2. Protect and conserve the natural resources of Econfina Creek and its associated springs.
3. Protect and restore the upland recharge area of ECWMA.
4. Provide high-quality, family-oriented, resource-based recreational opportunities to users of ECWMA where it does not adversely affect the other purposes for which the land was acquired.

ECWMA is significant because:

1. Up to 80 percent of the water flowing into Deer Point Lake Reservoir comes from Econfina Creek and its associated springs.
2. The upland recharge area of ECWMA is directly linked to the Floridan aquifer which discharges water directly into the creek and associated springs.
3. Econfina Creek is considered to be one of the most beautiful and unique streams in Florida with outstanding natural habitat areas and unparalleled recreational resources.
4. Approximately 20 to 30 percent of the known population of smooth-barked St. John's wort (SBSJW) (*Hypericum lissophloeus*), a Florida endemic and state-endangered species, occurs in and around the sandhill lakes of ECWMA.
5. The slope forest communities that border Econfina Creek have some of the highest plant species diversity in the State.

6. ECWMA receives more recreational users, has more recreational sites and facilities, and costs more to maintain/develop than all other water management areas under NFWFMD ownership.

ECWMA is bound by the following constraints:

- Section 373.59 of the Florida Statutes (F.S.),
- NFWFMD has no rule-making authority, and
- NFWFMD's specific cooperative agreements.

Experiential Resource Analysis

ECWMA can be separated into eight different resource opportunity areas (ROAs):

- Undisturbed xeric uplands
- Mesic uplands
- Seepage wetlands
- Basin wetlands
- Upland lakes
- Creeks/streams
- Springs and associated spring runs
- Disturbed lands

The ROAs are parallel to the Florida Natural Areas Inventory (FNAI) ecological community designations found on ECWMA, but the areas are further defined by the qualities experienced by the user in each area.

Existing-Use Analysis

A number of important stakeholder groups interested in ECWMA form the Management Advisory Committee (MAC). In a meeting with the MAC, protecting natural resources, enforcing rules and regulations, and providing adequate recreational opportunities were the key issues raised. In addition, individuals and user groups that did not attend the meeting were contacted. They included representatives of environmental/political groups, scientists, neighbors/traditional recreationists, representatives of special user groups, local governmental representatives, and canoe livery owners. These groups and individuals reaffirmed the comments and feedback from the MAC.

Surveys of Econfina Creek recreationists (canoeists) were performed. Key results were:

1. 89 percent were not ECWMA permit holders;
2. 27 percent felt Econfina Creek was crowded;
3. 43 percent of the open-ended responses suggested limiting loitering and alcohol use by non-boaters at bridges;
4. 95 percent of the canoeists were satisfied with their canoeing experience;
5. Canoeists holding permits were more likely to have used Walsingham Park and Rattlesnake Lake compared to canoeists not holding permits;
6. Canoeists holding permits were less satisfied with their canoeing experience; and
7. Canoeists holding permits were more likely to be from rural areas, whereas canoeists not holding permits were more likely to be from urban areas.

Mail surveys of permitted ECWMA users were performed. Key results were:

1. 78 percent were from Bay County, and 19 percent were from Washington County;
2. 23 percent felt that some ECWMA sites were overcrowded, but 41 percent felt that ECWMA was uncrowded at their last visit;
3. Permit holders have a lower overall perception of crowding than do canoeists;
4. 81 percent of permitted users were satisfied with their recreational experience;
5. Permitted users' main activities were camping, canoeing, hunting, and fishing, whereas canoeists were almost entirely focused on canoeing as their main activity;
6. Permit holders showed strong support for reduction or elimination of activities destructive to natural resources or water quality on ECWMA;
7. Permit holders showed moderate support for increased permit fees;
8. Permit holders showed little support for limiting use of ECWMA by visitors, even in overused areas: 48 percent supported restrictions and 52 percent were neutral or opposed to restrictions; and
9. The more frequent open-ended responses concerned providing better or expanded recreational sites and facilities, providing more detailed maps and signage, and keeping ECWMA as natural and undeveloped as possible.

Geographic data from the survey of canoeists, from NFWFMD records, and from canoe livery records revealed that:

1. The overwhelming majority of ECWMA users are from Bay County;
2. The majority of users from Washington County are permit holders engaging in more traditional uses such as hunting and fishing;
3. A higher proportion of *low-impact* users (e.g., canoeists) comes from areas beyond Bay and Washington counties; and
4. There estimated total annual number of recreational visits to ECWMA is 23,800 visits.

Due to projected growth in Bay County and projected increases in ecotourism in Florida and in the panhandle area, the demand for recreation on ECWMA will increase. More requests for information are coming from other Florida counties and other states than the number of users currently from these areas, suggesting that the future will bring increased visits to ECWMA from people outside the immediate area. Federal government figures project that non-game forms of recreation, such as swimming, canoeing/kayaking, bicycle riding, and day hiking will increase 41 to 86 percent over the next few decades. Florida government projections indicate that there is an outstanding need in the panhandle region for recreational hiking trails, freshwater beaches, horseback riding trails, freshwater fishing piers, and bicycle riding trails. These are exactly the forms of recreation that are provided or proposed for ECWMA.

ECWMA has a variety of recreation sites; some are currently being used, some are closed and could be reopened, and some should be permanently set aside for resource protection purposes. Most of the recreational sites have pre-existing issues that should be addressed by NFWFMD if recreation is to continue without adversely affecting natural resources.

The following sites were considered for the recreational analysis:

McCormick Springs	Dog Hunt, Still Hunt, and Quota Hunt Areas
Pitts Springs	Mobility-Impaired Hunting Area
Econfina Creek (Upper and Lower)	Porter Lake
Gainer Pond	Rattlesnake Lake
Williford Springs	Whitewater Lake
Blue Springs	Hammock-Hamlin Lakes
Sparkleberry Pond	Mabel Porter Road Lakes
Walsingham Park	Florida Trail
Primitive Camp Sites	Horse Trail

Sensitive Resource Analysis

ECWMA contains many sensitive resources, including protected flora and faunal species as well as rare community types. Some ecological communities have been historically managed for purposes other than resource protection (e.g., intensive timber production) over the years. Sensitive ECWMA communities include:

- Springs/spring runs
- Sandhill upland lakes (karst lakes)
- Sandhill
- Slope forests
- Econfina Creek

In addition to the sensitive communities, ECWMA has many listed plants and animals that have been documented to occur, but there are many others that could potentially occur within ECWMA based on the types of communities found there.

Management Zones (Recommendations)

Based on the review of ECWMA recreational resources and issues, six management zones have been defined:

- Primitive
- Recreational
- Motorized Rural
- Hunting
- Educational
- Resource Protection

These six management zones are divided into sub-zones related to specific recreational experiences (e.g., canoeing, camping, hiking). Recommendations for each of the zones are presented in the following table based on the current analysis (see page vii).

Design Standards

There are presently no consistent design standards for ECWMA. Standards for ECWMA are needed to allow NFWFMD to create and provide consistent types and levels of recreational opportunities. When implemented a consistent set of design standards will create for the user an overall level of expected recreational use and behavior, which will assist NFWFMD in management of ECWMA. Consistent design standards can assist NFWFMD in reducing some of the problems that exist at some of the sites.

Four types of design standards should be established for management of natural and recreational resources on ECWMA:

- Site Element Design Standards (e.g., facilities, barriers, markings, signs)
- Architectural Design Standards (e.g., consistent building styles)
- Graphic Design Standards (e.g., consistent logos and signage)
- Best Management Practices (BMPs) (e.g., practices for erosion prevention)

Site Element Design Standards for each management zone are outlined and presented in this report.

Indicators/Standards/Monitoring/Management

Indicators, standards, and monitoring strategies are presented for each of the management zones of ECMWA. These indicators, standards, and strategies are designed to measure the carrying capacity of the different zones based on resource and social conditions. Proposed management actions are not static; they should be modified to meet the needs of the different zones over time and should be adjusted to match the commitment level of NFWFMD recreational management and monitoring. Current and future management strategies should be assessed to determine if they are effective in protecting ECWMA. The indicators and standards should be used to assess whether management zone designations or changes in the management of particular zones should be considered.

A priority list for restoring, improving, and/or developing sites in the different management zones is outlined. Sites that are currently closed should remain closed until they have been fully restored or developed based on the recommendations. NFWFMD should focus management and development activities on sites that are already open to:

1. Eliminate or reduce negative recreational impacts at open sites,
2. Ensure that all open sites have the level of facilities needed and prescribed, and
3. Develop closed or undeveloped sites completely before opening.

Recommendations for Each Management Zone

Management Zone	Sub-Zone	Areas	Activities	Key Recommendations
Primitive	Creek/Stream	Upper Econfina Creek: Scotts Road to Williford Springs	Canoeing, nature observation, swimming	<ul style="list-style-type: none"> This portion of creek is for adventure-seeking, skilled canoeists/paddlers Develop parking area at Scotts Road bridge Establish registration boxes/logbooks for users
	Lake	Mabel Porter Road Lakes	Bank fishing, nature observation, picnicking	<ul style="list-style-type: none"> Develop small parking lots for users to walk to small lakes
	Trail	Florida Trail (16 miles in ECWMA)	Hiking, nature observation	<ul style="list-style-type: none"> Continue development and relationship established by the Florida Trail Association (FTA) Establish registration boxes/logbooks for users
	Horseback Trail	Horseback Trail (26 miles in ECWMA)	Horseback riding, nature observation	<ul style="list-style-type: none"> Continue development and relationship established by the Southern Trailriders Association (STA) Establish registration boxes/logbooks for users Restrict lake access by horses while providing for watering Post interpretive signs with trail rules Develop parking areas for trail access
	Camping & Picnicking	Walsingham, Shell, Devil's Hole, Anise, Longleaf, Bluff or Grissett, Trapp, FT	Low-impact camping, (access by foot, canoe, or car)	<ul style="list-style-type: none"> Post interpretive signs with rules/regulations Fence or mark boundaries of site and areas of activity (tent sites) Close Devil's Hole or move site away from water Close bluff or redesign site
Recreational	Creek/Stream	Lower Econfina Creek: Williford Springs to Reservoir	Canoeing, swimming, tubing	<ul style="list-style-type: none"> Upgrade auxiliary parking lot and establish a canoe launch site Establish a canoe launch/take-out site near Highway 388 bridge Demand that authorities enforce local laws and ordinances Encourage FDOT to address parking
	Lake	Porter, Whitewater, Hammock-Hamlin	Boating, fishing, picnicking, swimming, water skiing, camping	<ul style="list-style-type: none"> Porter Lake should be the only lake for water skiing and jet skiing Post interpretive signs with rules/regulations Fence or mark boundaries of site and areas of activity Establish boat launch sites at Hammock-Hamlin lakes (no jet or water skiing) Close road access around all lakes Establish parking and other facilities landward of lakeside vegetation Develop Whitewater Lake as a drive-in day-use site with fishing dock

Recommendations for Each Management Zone

Management Zone	Sub-Zone	Areas	Activities	Key Recommendations
Recreational	Trail	Pitts Spring nature trail	Hiking, nature observation	<ul style="list-style-type: none"> Formally develop nature loop trail at Pitts Springs Post interpretive signs with rules/regulations
	Group Camping & Picnicking	Sparkleberry Pond, Blue Springs, Williford Springs (day-use only), Rattlesnake Lake	Permitted group camping, fishing, boating, nature observation	<ul style="list-style-type: none"> Post interpretive signs with rules/regulations Fence or mark boundaries of site and areas of activity (tent sites) Protect SBSJW populations at lakes by restricting activity to designated areas Open two weekend group campsites at Rattlesnake Lake and allow fishing access on certain weekdays Close Williford Spring to canoes Establish alternative registration system for permits
	Springs	Pitts Spring	Swimming, picnicking, nature observation	<ul style="list-style-type: none"> Completely harden spring Mitigate and prevent erosion Post interpretive signs with rules/regulations Further develop boardwalks Fence or mark boundaries of site and areas of activity Demand that authorities enforce local laws and ordinances
	Off-Road Cycling	Trail to be developed	Off-road bicycling, nature observation	<ul style="list-style-type: none"> Develop planned site only with aid of assisting organization Post interpretive signs with rules/regulations
Hunting	Dog	See Figure 5-4	Hunting with dogs	No changes recommended
	Still	See Figure 5-4	Still hunting and quota hunting	No changes recommended
	Mobility Impaired	See Figure 5-4	Mobility-impaired hunting	No changes recommended
Motorized Rural		County roads in ECWMA	Driving, nature observation	Close all unnecessary road access
Educational		Gainer family homestead area, others	Environmental education	<ul style="list-style-type: none"> Assess need for environmental education center Develop Gainer family homesite in partnership with other organization Develop environmental education center around NFWMD mission and ECMWA purpose and significance
Resource Protection		Areas not in another zone, hunt areas off-season	Limited to research or monitoring activities	<ul style="list-style-type: none"> Access to zone should be by foot or for authorized reasons only Hunting zones should be resource protection zone in non-hunting seasons

1.0 INTRODUCTION

The Econfina Creek Water Management Area (ECWMA) is a unique resource for the Northwest Florida Water Management District (NFWFMD) and its constituents. Located in Bay, Jackson, and Washington counties, its lands have been acquired by NFWFMD primarily for water resource protection and preservation as well as aquifer recharge purposes. Initially, land within ECWMA was acquired through the *Save Our Rivers* land acquisition program, but the vast majority was acquired through the *Preservation 2000* land acquisition program.

ECMWA is a matrix of natural and altered communities. The area includes Econfina Creek and its associated spring runs and banks, as well as upland areas that include karst lakes. NFWFMD now owns and manages 37,281 acres of property within ECWMA, which includes a few private holdings. Historically, much of ECWMA has been privately held and managed for timber production by companies such as the St. Joe Land & Development Company and the Rosewood Timber Company. The area currently is managed as a Type II Wildlife Management Area for a variety of hunting and other recreational activities, including canoeing, swimming, fishing, motor boating, hiking, horseback riding, and camping.

The most prominent ecological community is Econfina Creek, which meanders through the eastern side of the area. It is a black-water creek fed by seepage and numerous springs. It is surrounded primarily by slope forest and intermittent seepage slopes. The upland areas to the east and west of the creek are a combination of xeric and mesic uplands with small to large karst lakes dotting the landscape, primarily to the west of the creek. The upland areas are primarily planted in off-site sand pines with little of the original xeric sandhill upland community remaining.

NFWFMD has a statutory charge to provide resource-based recreational opportunities that are not in conflict with the main purposes of protecting and preserving the water resources of the area as well as restoring and monitoring natural communities. NFWFMD faces many challenges in providing these recreational opportunities, particularly in offering recreational activities that are appropriate to the area and curtailing potentially detrimental activities. Because of this, NFWFMD has embarked on a recreational and natural resource inventory and evaluation to determine suitable management directions for ECWMA in Bay, Jackson, and Washington counties. The stated objectives of this project are to:

1. Analyze NFWFMD property on Econfina Creek to determine suitable land and water bodies for sustainable resource-based recreational activities.
2. Identify factors that limit recreational activities both individually and collectively.
3. Recommend levels and types of use on a site-specific basis that (a) meet expected demand to the greatest extent possible, (b) provide quality recreational experiences, and (c) avoid degradation of natural systems.
4. Recommend areas in which recreational use should be eliminated or held to minimal levels.

5. Estimate current and expected demand for recreational use of NFWWMD lands.
6. Recommend design standards that will allow NFWWMD to provide recreational opportunities consistent with the levels recommended above.
7. Recommend strategies or procedures to monitor proposed uses in the context of an overall land management program.
8. Recommend standards to be monitored when changes associated with recreation may be considered to be adverse to NFWWMD's primary mission.

2.0 METHODS/APPROACH

The Visitor Experience and Resource Protection (VERP) framework, developed by the National Park Service and currently being used by the Florida Park Service, was used to develop recommendations for resource-based recreation on ECWMA. This framework is widely accepted in dealing with recreational issues of natural areas such as wildernesses, rural lands, designated parks, forests, and water management areas. VERP provides the logic and rationale for making decisions on interconnected recreation and natural resource management issues. The process also allows for revisions in management over time as more information on carrying capacity and ecological impacts is gathered. The following steps were taken to develop the VERP framework for ECWMA:

1. Collect and review existing ECWMA documents and information,
2. Form and meet with a joint recreational planning team,
3. Develop and implement a public involvement strategy,
4. Perform a reconnaissance of ECWMA natural resources and recreational areas,
5. Describe potential visitor experiences and allocate appropriate management zones, and
6. Select indicators, specify standards, and develop a monitoring plan for the management zones.

Monitoring plan implementation, management actions, and future plan adaptations will be decided and carried out by NFWFMD land managers.

Pandion Systems, Inc. (Pandion) collected and reviewed all existing information on ECWMA, such as:

1. Acquisition studies;
2. Biological surveys (e.g., Econfina Creek Botanical Survey);
3. Florida Natural Areas Inventory (FNAI) records;
4. Florida Fish and Wildlife Conservation Commission (FFWCC) records and gap analysis;
5. Scientific publications on the ecology, hydrology, or geology of Econfina Creek;
6. Comprehensive Plans of the West Florida Regional Planning Council for Bay, Jackson, and Washington counties;
7. Local recreational plans;
8. Florida's Statewide Comprehensive Outdoor Recreational Plan (SCORP); and
9. Ecotourism information provided by local outfitters.

The review also examined information on nearby areas that might have a bearing on ECWMA recreation, such as county and state recreational offerings.

Following the information review, Pandion staff (Christian Newman, Susan Marynowski) and NFWFMD staff (George Fisher, Bill Cleckley, Mark Herndon) formed a Joint Recreational Planning Team. The Team met to review and discuss the current situation on ECWMA and to exchange other important information for the project. In addition, the team developed purpose, significance, and planning constraint statements for ECWMA. This was done to clarify basic assumptions about ECWMA's use and management and provide a context for how ECWMA would be managed and used in the future. The

purpose statements are the reasons the area was set aside. The significance statements summarize the essence or importance of ECWMA. The planning constraint statements are those decisions that are the *givens* and are not to be reconsidered during the planning effort (e.g., statutory authority; NFWFMD policies and regulations; interagency agreements; county, state, or federal regulations).

A public involvement strategy was developed and implemented for the project. The goals for implementing the public involvement strategy were to:

- Learn about public concerns, issues, expectations, and values
- Learn about current and future public recreational needs
- Educate people about the process, issues, and proposed management actions
- Collect data to formulate recommendations
- Define alternative plans or views
- Build support for implementing recommendations

A number of strategies were used to accomplish these goals. The first strategy incorporated input from NFWFMD's Management Advisory Committee (MAC), which represents stakeholders concerned or involved with ECWMA (e.g., public interest and environmental groups, user groups, outfitters, state and federal agencies, and local governments).

On September 20, 1999, a MAC meeting was held at City Hall in Lynn Haven, Florida. Two notices were sent to MAC members, and 23 members attended (see Appendix A for meeting agendas and handouts). The meeting began with an overview of the project and a review of the purpose, significance, and planning constraint statements. Members were encouraged to comment on these statements. Following the review, all members were given an opportunity to list and discuss concerns and issues regarding recreation and resource management and protection on ECWMA. In addition, MAC members contributed to a set of criteria for evaluating recreational opportunities and went through an exercise on developing recommendations for "The Pitts Springs Recreational Experience." At the end of the meeting, members were given feedback forms and sample surveys to complete and return to Pandion. Another meeting was held on January 27, 2000 to review and discuss the recommendations from this report.

In addition to the MAC meetings, formal and informal surveys of different ECWMA user groups were completed. The formal surveys included a random mail survey of ECWMA permit holders (mailed October 20, 1999 and November 30, 1999) and a survey of canoeists at two canoe liveries (September 4-13, 1999) (see Appendix B for survey samples). Informal surveys included face-to-face interviews with day-use visitors to Pitts Springs and telephone interviews with individuals not included in or not attending the MAC meeting (e.g., county commissioners and county recreational planners).

Onsite reconnaissance was used to assess current recreational sites and their status. Four days (July 5-9, 1999) were spent with NFWFMD staff visiting all the relevant areas of ECWMA followed by two more visits (September 20, 1999 and November 5, 1999) to ECWMA areas by Pandion staff.

3.0 RESULTS

3.1 ECWMA Purpose, Significance, and Planning Constraint Statements

The following purpose, significance, and planning constraint statements were developed by the Joint Recreational Planning Team to guide the recreation and resource analysis and recommendation process.

Purpose Statement—Reason ECWMA was set aside as a unit.

The purposes of ECWMA are to:

1. Protect and preserve the drinking water resources and supplies of Panama City and the surrounding areas of Bay County and Washington County.
2. Protect and conserve the natural resources of Econfina Creek and its associated springs.
3. Protect and restore the upland recharge area of ECWMA.
4. Provide high-quality, family-oriented, resource-based recreational opportunities to users of ECWMA where it does not adversely affect the other purposes for which the land was acquired.

Significance Statement—Summarized statements that capture the essence of ECWMA’s importance in terms of natural resources and opportunities. What makes it special to the area, NFWMD, and Florida?

ECWMA is significant because:

1. Up to 80 percent of the water flowing into Deer Point Lake Reservoir comes from Econfina Creek and associated springs.
2. The upland recharge area of ECWMA is directly linked to the Floridan aquifer, which directly discharges water into the creek and associated springs.
3. Econfina Creek is considered to be one of the most beautiful and unique streams in Florida with outstanding natural habitat areas and unparalleled recreational resources.
4. Approximately 20 to 30 percent of the known population of SBSJW, a Florida endemic and state-endangered species, occurs in and around the sandhill lakes of ECWMA.
5. The slope forest communities that border Econfina Creek have some of the highest plant species diversity in the state.
6. ECWMA receives more recreational users, has more recreational sites and facilities, and costs more to maintain/develop than all other water management areas under NFWMD ownership.

Planning Constraints—Decisions that are *givens* to the planning that cannot be changed (agreements, mandates).

The planning constraints for ECWMA are as follows:

1. The land management planning and decision making requirements for ECWMA are set forth in Section 373.59 of the Florida Statutes (F.S.). They require that:
 - a. “Lands acquired with moneys from Save Our Rivers Fund shall be managed and maintained in an environmentally acceptable manner and, to the extent practicable, in such a way as to restore and protect their natural state and conditions.”
 - b. “Lands acquired for the purposes enumerated in this section shall also be for general recreational purpose.”
 - c. The approved recreational activities include fishing, hunting, hiking, bicycling, horseback riding, swimming, camping, canoeing, boating, nature study, picnicking, and other related outdoor activities.
 - d. Recreational activities are allowable to the “maximum extent possible considering the environmental sensitivity and suitability of these lands.”
 - e. Water resource protection/preservation and habitat restoration, enhancement, and maintenance are the primary uses of the lands, and recreation can be promoted where it can be practiced without unacceptable impacts to water resource values or natural habitats.
2. Except for laws against trespassing, NFWFMD has no rule-making authority and no authority to ensure enforcement of any rules on NFWFMD lands. NFWFMD relies on the enforcement of local, state, and federal rules and regulations by other governmental entities such the State of Florida; Bay, Jackson, and Washington County sheriffs departments; FFWCC; and the Florida Department of Transportation. Although enforcement by these entities has significantly curtailed illegal activities within ECWMA, NFWFMD is still experiencing adverse impacts to the area’s natural resources due to unregulated recreational use.
3. NFWFMD does not own all lands and water bodies within ECWMA. There are some private landlocked or abutting properties that have no legal access. NFWFMD is endeavoring to provide these private landowners with access to their respective properties, if they qualify, via an access license with conditions. In some instances (e.g., along Porter Lake), NFWFMD owns only a portion of the lake and, therefore, cannot control access to or recreational use of the entire water body.
4. NFWFMD has entered into specific cooperative land management and recreational use agreements with several well-known recreational user groups to assist NFWFMD in the planning, developing, and maintaining recreational trails and associated facilities. These groups include:
 - a. Southern Trailriders Association (STA)—NFWFMD permits limited access to STA to develop and maintain equestrian trails and support

facilities as approved by NFWWMD. See Agreement dated March 15, 1999, in NFWWMD files.

- b. Florida Trail Association, Inc.(FTA)—NFWWMD permits limited access to FTA to develop and maintain hiking trails and support facilities as approved by NFWWMD. See Agreement dated August 24, 1999, in NFWWMD files.
- c. Board of County Commissioners of Washington County—NFWWMD and the Washington County Commission have entered into two cooperative agreements whereby the commission, in conjunction with the Washington County Correctional Institute (DOC), provides NFWWMD with two public works inmate crews/supervisors. One crew conducts cleanup, maintenance, and repair services for ECWMA recreation sites, while the other crew provides construction, maintenance, installation, and repair services for NFWWMD. See Umbrella Agreement in NFWWMD files.
- d. Panama City Flyers Cycling Club (PCFCC)—NFWWMD permits limited access to PCFCC to develop and maintain bicycle trails and support facilities approved by NFWWMD. See Agreement dated May 4, 1998, in NFWWMD files.

3.2 Experiential Resource Analysis

ECWMA can be separated out into eight resource opportunity areas (ROAs):

- Undisturbed xeric uplands
- Mesic uplands
- Seepage wetlands
- Basin wetlands
- Upland lakes
- Creeks/streams
- Springs and associated spring runs
- Disturbed lands

The ROAs are parallel to FNAI ecological community designations found on ECWMA, but descriptions are based on the types of qualities experienced by the user. For locations, see Map, ECWMA Recreational Opportunity Areas. Table 3.2-1 summarizes the ROAs, their relative availability inside and outside ECWMA, their resilience, and their importance to the purpose of ECWMA.

3.2.1 Undisturbed Xeric Uplands

This ROA includes the higher and drier sites of ECWMA, sandhill and xeric hammock communities. A low density of mature trees and an open understory characterize these areas. This ROA can provide unique resource-based opportunities to users. Xeric uplands are characterized by open, airy, sunny vistas that provide good areas to walk, ride, and observe nature.

Table 3.2-1. Attributes for ECWMA Resource Opportunity Areas

Resource Opportunity Area	Relative Availability		Resilience		Importance to ECMWA Purpose Statements				
	In ECWMA	Out of ECWMA in NWFWMID	Ability to Conceal Use	Ability to Withstand Use	Protect Water	Natural Resource Importance	Upland Recharge	Recreational Value Importance	Educational Value
Undisturbed Xeric Uplands	5	5	3	4	5	5	5	3	5
Mesic Uplands	4	2	4	3	4	3	4	4	2
Seepage Wetlands	5	5	1	1	5	5	2	3	3
Basin Wetlands	4	2	4	4	5	4	3	1	4
Upland Lakes	2	4	1	3	5	4	3	1	4
Creeks/Streams	2	2	2 ^a /4 ^b	2 ^a /4 ^b	5	5	NA	4	3
Springs/Spring runs	3	4	1	2	5	5	NA	5	5
Disturbed Lands	2	1	5	5	5	2	5	2	3
Relative Availability: 5 = Rare 4 = Uncommon 3 = Somewhat common 2 = Common 1 = Abundant			Resilience and Importance: 1 = Very low 2 = Low 3 = Moderate 4 = High 5 = Very high ^a = bank, ^b = channel						

Undisturbed xeric uplands are rare both inside and outside ECMWA because of intensive forestry and agriculture practices. They have a moderate ability to conceal use but a high ability to withstand surface use because they are disturbance-driven systems. Xeric uplands have very high water recharge, water quality, water protection, and natural resource values. Their importance to recreation is moderate because their attractive open vistas also allow for hot sun penetration. Undisturbed xeric uplands have a very high educational value because of their rarity, species diversity, and critical role in a scarce native Florida landscape.

3.2.2 Mesic Uplands

This ROA differs from the undisturbed xeric upland ROA in that it has a closed canopy and a more developed understory. Mesic uplands include slope forest, upland hardwood forest, upland mixed forest, and upland pine forests. These areas are characterized as shady, cool, and somewhat moist. They provide good areas for picnicking and camping and offer a less open and more private experience.

Mesic uplands are uncommon within ECWMA and are common outside ECWMA. They have a high ability to conceal use and a moderate ability to withstand use. They have high water protection and upland recharge values. They have moderate natural resource value, with slope forests having high value because of their listed and unique species assemblages. Overall, mesic uplands have a high recreational value with a low environmental education value with the exception being slope forest habitat.

3.2.3 Seepage Wetlands

The seepage wetlands include baygalls and seepage slopes. These communities are characterized by high moisture levels and closed canopies. Most seepage wetlands are found along Econfina Creek. These areas are shady, cool, and somewhat moist, but they offer few recreational opportunities other than birding or still hunting due to their fragile characteristics.

These ROAs are rare inside and uncommon outside ECWMA. They have very low ability to withstand or conceal use due to potential for erosion. They have very high water protection and natural resource value but low upland recharge value. Their recreational and environmental educational value is moderate.

3.2.4 Basin Wetlands

Basin wetlands include depression marshes and dome swamps characterized by shallow, closed basins that often are inundated with water. Dome swamps have closed canopies and provide shade, whereas depression marshes are open. Basin wetlands are a challenge to visit and offer few resource-based recreational opportunities, as most recreationists do not prefer wading in swamps to other forms of recreation.

Basin wetland ROAs are uncommon within ECMWA but are relatively common outside the area. They have a high ability to conceal use and to withstand appropriate, low-level uses such as nature observation and hunting. They have very high importance for water and natural resources protection. Basin wetlands are moderately important for upland recharge and have very low recreational importance. However, they have high value for environmental education as a beginning point for demonstrating water cycles and water resource issues in Florida.

3.2.5 Upland Lakes

Upland lakes include the upland sandhill/karst lakes in the region as well as the one sinkhole lake (Devil's Hole). These upland lakes are unique features to Florida and are unusual natural communities. They provide open water vistas and are a favorite place for people to visit. They provide opportunities for fishing, cool summer swimming, nature observation, camping, and other recreational uses.

These ROAs are common throughout ECMWA but are uncommon outside ECWMA. They have a very low ability to conceal use and a moderate ability to withstand use. Upland lakes have a very high importance for water protection, natural resources, upland recharge, and recreational value. They have moderate educational value.

3.2.6 Creeks/Streams

This ROA includes the black-water streams and associated banks forming the Econfina Creek drainage system. They offer a shady, cool, tranquil experience in low-use areas and a more social experience in higher use areas. Along with the beautiful scenery and opportunities for nature observation, being on or near a creek is a relaxing experience for most visitors.

Creeks and streams are relatively common both inside and outside ECWMA. The banks of the creeks and streams have a low ability to conceal use and withstand use, while the main channel is more resilient. Creeks have a very high importance for water protection and natural resources, a high recreational value, and a moderate educational value.

3.2.7 Springs/Spring Runs

This ROA includes the springs and associated spring run streams found along Econfina Creek. They provide a unique Florida experience. Users enjoy cool, clear water, and the springs offer beautiful, tranquil scenery.

Springs and spring runs are somewhat common within ECWMA and uncommon outside ECWMA. They have a low ability to conceal or withstand use. They have a very high importance for water and natural resource protection, as well as very high recreational and educational values.

3.2.8 Disturbed Lands

Disturbed land ROAs encompass off-site sand pine plantations, restoration areas, and other areas not in a natural state or condition. They are usually in xeric areas of ECWMA and some are very open due to past pine harvesting. They do not offer much scenery and have little resource-based recreational value other than for hunting and some nature observation activities.

Disturbed land ROAs are common inside ECWMA and very common outside ECWMA. They have a high ability to conceal and withstand use. On ECWMA, disturbed uplands have very high water protection and upland recharge importance, although they have low natural resource and recreational importance until they become more fully restored. Disturbed areas have a moderate educational value, particularly in demonstrating ecosystem restoration practices.

3.3 Existing-Use Analysis

3.3.1 Public Feedback on Opportunities and Issues of Recreational Use

A key component of the VERP process is the public involvement strategy. A plan was developed to:

1. Learn about the concerns and expectations of various stakeholder groups,
2. Make people aware of the planning process,
3. Learn more about how people value the natural resources and recreational experiences of ECWMA, and
4. Collect data to guide management decisions.

Involvement of the various stakeholder groups is critical because decisions about recreational and natural resource management are driven by public values.

Within the framework that was developed for public involvement for this project, several factors were considered to define *interested* stakeholders:

- Community/proximity (C)
- Economics (E)
- Use (U)
- Values (V)
- Profession (P)

From this set of factors, stakeholder groups such as user groups, canoe livery services, environmental groups, local political representatives, and agency staff members were targeted for involvement and data collection. Table 3.3-1 lists the public involvement stakeholder groups, their interests, and the methods used for involving and surveying the stakeholders.

Table 3.3-1. List of Public Involvement Stakeholders

Stakeholder	Interest	Data	Methods
NFWFMD Staff and Planning Team	P, V	Planning constraints and opportunities Stakeholder definitions Familiarization with resources Recreational uses, issues, and conflicts Potential future uses Current and future demand	Informal group and individual interviews, field tours
NFWFMD Board	P, V	Planning constraints and opportunities Recreational uses Potential future uses	Formal group reporting and discussion
ECWMA Management Advisory Committee	C, V, E	Planning constraints and opportunities Recreational uses, issues, and conflicts Potential future uses Current and future demand	Informal group interviews
Representatives, Planners, and Authorities in Bay and Washington Counties	C, P	Input into planning effort Recreational uses, issues, and conflicts Potential future uses Current and future demand Area recreational opportunities	Telephone interviews
		Recreational uses, issues, and conflicts Current demand	Document analysis of law enforcement records
ECWMA Canoe Vendors	E, C	Input into planning effort Recreational uses, issues, and conflicts Potential future uses Current and future demand Visitor geography	Personal interviews
ECWMA Permit Holders	U, C, V	Input into planning effort Recreational uses, issues, and conflicts Visitor geography Perceptions of crowding Satisfaction levels Opinions of user fees	Mail survey
ECWMA Non-Permitted Users	U, C, V	Input into planning effort Recreational uses, issues, and conflicts Visitor geography Perceptions of crowding Satisfaction levels	Survey of canoe livery customers
ECWMA Non-Permitted Users (continued)	U, C, V	Visitor geography Current demand	Document analysis of canoe livery records
		Input into planning effort Visitor geography Satisfaction levels	Informal survey at recreational site

Table 3.3-1. List of Public Involvement Stakeholders

Stakeholder	Interest	Data	Methods
User Group Representatives	U, V	Input into planning effort Recreational uses, issues, and conflicts Recreational preferences Perceptions of crowding User fee analysis Current and future demand	Telephone or personal interviews
Future Users	V, U	Requestor geography Future demand	Document analysis of information request records
C = Community/proximity E = Economics U = Use V = Values P = Profession			

Input from NFWMD staff was critical in the realm of familiarization with the resources and issues. Input from the staff is incorporated into Section 3.3.3, Description of Recreational Areas and Issues, and throughout this document. Likewise, input from the NFWMD Governing Board provided baseline direction for the planning effort and is incorporated throughout this report.

3.3.1.1 Management Advisory Committee

The ECWMA MAC is an advisory board of citizens, user-group members, concession representatives, environmentalists, scientists, agency personnel, and neighbors. MAC met on September 20, 1999 to discuss issues facing ECWMA (see Appendix A, List of MAC Attendees and Agenda). Brainstorming techniques were used to identify key issues, followed by a discussion of potential solutions and alternatives. Table 3.3-2 summarizes the key issues identified at the MAC gathering.

Table 3.3-2. Key Issues of the ECWMA Management Advisory Committee

Issue	# Times Mentioned
Natural Resources	10
Protect water quality	
Protect aquifer recharge areas, esp. sandhill karst ponds	
Protect large habitat areas	
Protect endangered species	
Provide interconnections with neighboring natural areas	
Consider neighboring land uses in protection plans	
Provide buffers when clearcutting for restoration	
Consider potential erosion when clearcutting for restoration	
Enforcement and Regulation	8
Enforce public drunkenness/open container rules	
Prevent/enforce loitering	
Prevent/enforce littering	
Seek funding sources for enforcement	
Recreation	7
Continue to provide recreational opportunities	
Continue to provide hunting opportunities	
Manage/stock fisheries where necessary	

Balance recreational uses with resource protection	
Provide recreation complementary to resource protection (e.g., hiking, bicycling, horseback riding, greenways)	
Improve parking/accessibility facilities where necessary	
Public Communication/Outreach	4
Publicize the purposes of ECWMA	
Educate the public about ECWMA's natural resources	
Carrying Capacity	4
Analyze levels of use of resources	
Prevent overuse through closings or other methods	
Other	2
Recruit and develop volunteer "deputies" for monitoring activities	
Consider charging user fees to track and control recreational use	

MAC members contributed to a slate of significant factors to consider in the process of analyzing recreational experiences potentially provided by ECWMA:

1. What natural resources are needed?
2. Which natural resources are impacted?
3. What are good indicators for those impacts?
4. Can recreation be dispersed in space or time to avoid overcrowding?
5. Does each opportunity complement or conflict with other recreational opportunities?
6. What infrastructure is needed?
7. What is the value to the public?
8. Based on these factors, should the recreational opportunity be offered at all?

As an exercise, the committee talked through a model analysis of "The Pitts Springs Recreational Experience" (Table 3.3-3). While the views and values of the MAC specialists (e.g., scientists, agency personnel) may not be the same as those of the general public, this exercise is nevertheless a useful example of the kind of recreational experience analysis that was employed throughout the planning process.

Table 3.3-3. MAC Definition: The Pitts Springs Recreational Experience

<u>Descriptions of the Resource</u>
Fresh water
Clean
Pristine
Cool
"A unique freshwater swimming area"
<u>Descriptions of the Recreational Experience</u>
Family oriented
Civil
Quiet
Accessible
Socializing
Picnicking

<u>Descriptions of the Value of the Recreational Site</u>				
Clean water				
Safe				
Open/Unrestricted				
<u>Various Estimations of the Carrying Capacity of the Site</u>				
10	-	30	-	100
<u>The Pitts Springs Recreational Experience Should Continue If It Meets Standards To</u>				
Maintain water quality and habitats				
Prevent or mitigate erosion				
Be balanced by more protection elsewhere on ECWMA				
Be understood as a privilege and not a “right” of the public				

3.3.1.2 User Groups and Special Interest Groups

Many of the user group and special interest group representatives who were contacted also attended the MAC board meeting. Local government representatives and outfitters who did not attend the MAC meeting also were contacted. Feedback from these individuals and group representatives is described below.

Environmental/Political Groups

Views represented:

- League of Women Voters
- Bay County Republican Committee
- Sierra Club and Audubon Society chapters
- Individual environmentalist

Summary of management suggestions:

1. Provide low-impact recreation (e.g., canoeing, hiking, nature observation/study, picnicking, stalk hunting, primitive camping, horseback riding) compatible with protecting water quality and natural resources.
2. Provide complete protection for endemic and protected species.
3. Restrict vehicular access and other intense uses (e.g., off-road vehicles, motorized boats) that degrade water quality, cause erosion, disrupt wildlife, or damage resources.
4. Restrict use with a permit or fee system so that solitude and cleanliness are enhanced; provide for greater solitude in remote areas, low-level crowding in accessible public areas.
5. Enforce open-container/public intoxication/loitering laws for reasons of public safety and peace; seek support for such enforcement from a variety of sources.
6. Provide low-profile infrastructure (signage, unpaved trails, designated unpaved parking, fencing, docks on creek, picnic tables, latrines) to draw users to endorsed locations.
7. Provide public outreach/education (particularly signage) to guide users to appropriate recreation areas and behaviors and to explain ECWMA’s purpose; develop a corps of volunteers for support and monitoring activities.

8. Consider concentrating the users seeking *no-rules* and *social* recreation into one vehicle-accessible area by restricting or limiting vehicular access to other areas.
9. Coordinate with other agencies to include ECWMA in a corridor or greenway system and avoid fragmenting wildlife habitat within ECWMA; explore less-than-fee-simple acquisition strategies to expand ECWMA.

Scientific Individuals/Groups

Views represented:

- Individual scientists
- Florida Defenders of the Environment

Summary of management suggestions:

1. Adhere to NFWFMD mandate to protect and restore freshwater resources, floodplains, aquifer recharge areas, and natural communities.
2. Continue ecosystem restoration efforts and provide complete protection for unique or remnant habitats, unique occurrences or large specimens of non-protected species, and endemic or protected species (e.g., close springs to swimmers and canoeists to maintain submerged vegetation and shorelines).
3. Provide low-impact recreation (e.g., canoeing, hiking, nature observation/study, walk-in recreation, as in Section 373.59, F.S.) compatible with water quality and natural resource protection; planning for public uses should not favor one group over another.
4. Prohibit intense or destructive recreational uses (e.g., off-road vehicles, motorized boats on karst ponds or above Highway 388 bridge) that cause erosion and degrade water quality; keep all vehicles on county-maintained roads.
5. Provide minimal infrastructure and support services; complete flora and fauna surveys should be performed before any new infrastructure or recreational developments are built.
6. Cooperate with other agencies (e.g., FFWCC) to set boundaries and regulations pertaining to wildlife-based or other forms of recreation.

Neighbors/Traditional Recreationists

Views represented:

- Individual hunters and anglers
- ECWMA neighbors

Summary of management suggestions:

1. Give everyone the opportunity to enjoy ECWMA's natural resources; continue to offer opportunities for hunting, fishing, and camping (without recreational vehicles).
2. Limit the use of motorized recreational vehicles (e.g., motorized boats, jet skis) that degrade water quality.
3. Enforce open-container/public intoxication laws.
4. Consider future recreational demands in planning process.
5. Adhere to NFWFMD mandate to protect freshwater resources and recharge areas.

Southern Trailriders Association

Summary of management suggestions:

1. Continue to provide horse trails; improve access to horse trails; allow horse trails on the east side of Econfina Creek.
2. Provide as much public recreation as possible without damaging natural resources.
3. Prohibit intense or destructive recreational uses [e.g., off-road vehicles, all-terrain vehicles (ATVs)].
4. Provide parking (for trucks with trailers) and latrines for horse trail users.

Florida Trail Association

Summary of management suggestions:

1. Continue to provide hiking trails; hiking has low impact and high personal contact with nature.
2. Prohibit intense or destructive recreational uses (e.g., off-road vehicles, motorized boats, ATVs) that cause severe erosion in ECWMA's deep sands.
3. Continue protecting water quality and natural resources.

Local Government Representatives

Local representatives (county commission chairs and recreational directors of Washington County and Bay County) were contacted via telephone to discuss ECWMA issues and to gain qualitative assessments of existing area recreational facilities and current and future recreational demand in the area.

Summary of comments from Bay County representatives:

1. ECWMA is growing rapidly and will continue to grow in the future; recreational demand and pressures will continue to expand, especially from out-of-state visitors on day trips to the area.
2. Few similar recreational opportunities exist in Bay County; former recreational areas at several lakes have been closed due to bad behavior and lack of enforcement.
3. Current problems with trash, loitering, and public drunkenness must be dealt with; waterborne policing should be initiated to control behavior on the creek; littering fines should be enforced; strong enforcement will get people to behave; sources of funding for enforcement must be found; Bay County is doing all that it can to help with enforcement.
4. Bay County has various small county parks and approximately eight freshwater boat ramps (with small fishing docks), but no recreational offerings of forest parks, trails, or camping.

Summary of comments from Washington County representatives:

1. Since ECWMA is a public area, access should be open; recreational restrictions should be lifted; traditional users are being alienated by recreational closures, increased fees, and the focus on elite user groups (e.g., horseback riders, hikers).

2. Existing roads within ECWMA should be reopened to driving; people want to be able to get off county roads in their vehicles; large interior portions of ECWMA are unused.
3. Recreational offerings are not adequately serving handicapped and elderly constituents in Bay County, who would like to drive or use ATVs to get to recreational sites.
4. Water quality is adequately protected in ECWMA; for better water quality protection, NFWMD should permit fewer wells and septic systems (e.g., around Porter Lake and Crystal Lake).
5. Growing demand will likely lead to even more recreational restrictions in the future, but ECWMA needs to be opened up and a progressive plan needs to be adopted to gradually address future recreational pressures.
6. Washington County has various small county parks and approximately 30 boat ramps on two lakes, Holmes Creek, and the Choctawhatchee River, but no recreational offerings of forest parks, trails, or camping. (Note that Falling Waters State Recreation Area and Pine Log State Forest offer limited forest-based recreational opportunities in Washington County.)

Canoe Outfitters

The owners of the two canoe liveries serving ECWMA were interviewed in person. The livery owners readily offered their assistance in performing the survey of ECWMA canoeists (results presented below). One company offered additional access to customer records for the purpose of assessing current demand and visitor geography (results are presented in Section 3.3.2, Current and Future Recreational Demand). Discussions with outfitters revealed several major concerns of these recreational service businesses:

- Lack of accessible canoe launch and take-out areas, especially for larger groups
- Excessive loitering at bridges, often blocking canoe livery business
- Lack of enforcement of laws against open containers of alcohol at bridges and on creek

Suggestions from canoe liveries for future management actions included:

1. Provide accessible canoe launch and take-out areas near the Highway 20 and Highway 388 bridges;
2. Enforce roadside parking and open-container laws, especially at bridges;
3. Keep springs open to canoeists; and
4. Consider a no-disposable-container rule for the entire creek corridor if trash gets out of hand.

3.3.1.3 Survey of Non-Permitted Recreational Users (Canoeists)

An informal survey of canoeists was performed by the two livery services at Econfina Creek. One hundred forms were sent to each of the liveries, and surveys were distributed Saturday, September 4, 1999, through Monday, September 13, 1999 (throughout Labor Day weekend and the following week and weekend). Surveys were returned in bulk from each of the liveries: 55 from Creek Cruisers and 76 from Econfina Creek Canoe Livery (n=131).

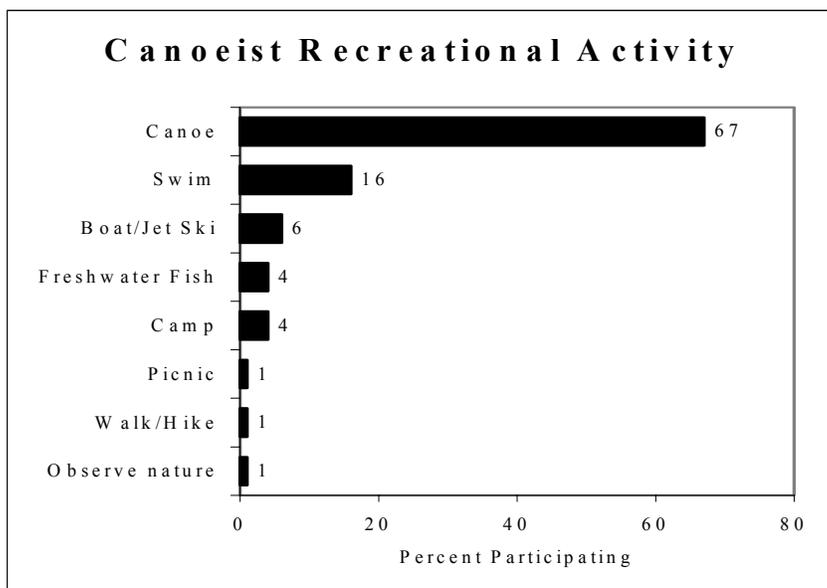
The purpose of the survey was to measure the attitudes and behaviors of non-permitted users of ECWMA. Respondents to the survey were predominantly non-permit-holding users (89 percent), so these results substantially represent the views of that population. The average number of people in each canoeing party was 6.5 (SD 5.1) and the average number of people seen during the canoe trip was 39 (SD 31). The high standard deviations indicate a wide variety of canoe experiences on Econfina Creek, depending on the time of day, duration, and direction of the trip taken. Respondents reported what were their outdoor activities on ECWMA in the past year (Table 3.3-4).

Table 3.3-4. Percent of Canoeists Reporting Participation in Various Activities (n=91)

Outdoor Activity	Percent Participating
Canoeing	99
Swimming	92
Picnicking	56
Camping	34
Freshwater Fishing	34
Walking/Hiking	24
Bird/Nature Observation	23
Boating/Jet Skiing	21
Hunting	14
Horseback Riding	5
Bicycling	5
Other	5

When asked what was their *main* outdoor activity at ECWMA, respondents indicated creek-oriented recreational opportunities as their most frequent activities (Figure 3.3-1).

Figure 3.3-1. Main Outdoor Activity Reported by ECWMA Canoeists (n=82)



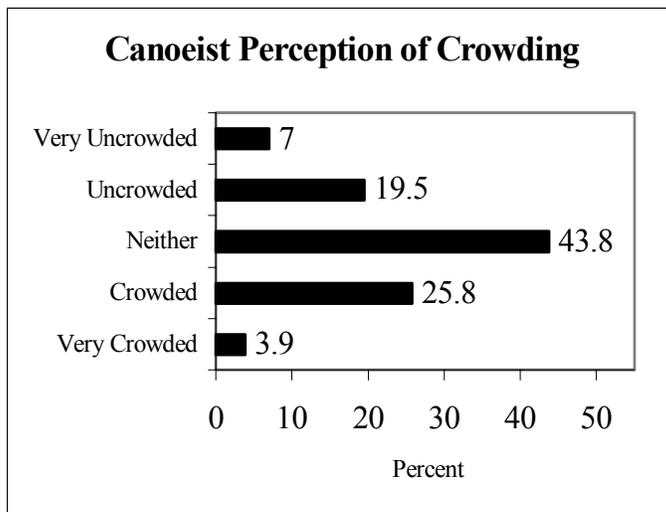
To assess patterns of use of ECWMA, canoeists were asked which areas they had visited at any time in the past (Table 3.3-5).

Table 3.3-5. Percent of Canoeists Reporting Past Visits to ECWMA Sites (n=89)

Area	Percent Visiting
Econfina Creek	97
Williford Spring	65
Pitts Spring	63
Walsingham Park	35
Group Camps	33
Primitive Camps	29
Rattlesnake Pond	19
Porter Lake	18
Gainer/Emerald Springs	11
Still Hunt Area	10
Dog Hunt Area	10
McCormick Springs	7
Florida Trail	6
Whitewater Pond	1
Wolf Pond	1

Finally, Econfina canoeists were asked two questions to elicit attitudes about the recreational experience. When asked how crowded Econfina Creek was on the day of their most recent visit, responses averaged 3.0 on a scale of 1 = very uncrowded to 5 = very crowded (n=128). The frequencies of responses on crowding were fairly evenly distributed (Figure 3.3-2).

Figure 3.3-2. Crowding Perceptions of ECWMA Canoeists (n=128)



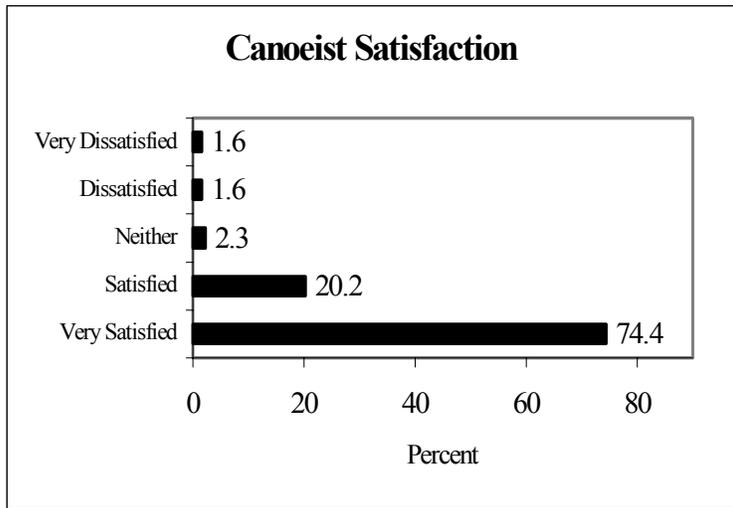
Over a quarter of respondents (27 percent) felt that parts of Econfina Creek were overcrowded (n=127). Areas that were cited as overcrowded by those who commented (n=36) were the Highway 20 and 388 bridges (61 percent) and the springs (39 percent, with 15 percent specifically mentioning Pitts Spring). Suggestions for alleviating overcrowding were solicited with in an open-ended format (Table 3.3-6).

Table 3.3-6. Suggestions of Canoeists to Solve Overcrowding (n=21)

Suggestion	Percent
Limit loitering and alcohol use of non-boaters at bridges	43
Employ a full-time attendant at Pitts Springs	14
Clean up trash and provide more trash cans	14
Open boat launches near Highway 20	10
Engender care and respect for resources	10
Open McCormick Springs	5
Keep areas as natural as possible	5

Regardless of their perception of crowding, Econfina Creek canoeists were satisfied with their recreational experiences, with average satisfaction at 4.6 on a scale of 1 = very dissatisfied to 5 = very satisfied (n=129). More than 74 percent of respondents were very satisfied with their recreational experiences, and a total of 95 percent were either satisfied or very satisfied. This is a high level of approval for the Econfina Creek canoe experience (Figure 3.3-3).

Figure 3.3-3. Satisfaction of ECWMA Canoeists (n=129)



An open-ended question allowed for further suggestions or comments about the management of recreation at Econfina Creek. Among those commenting, the most frequently mentioned issues concerned increasing enforcement of rules against loitering and drinking at bridges, keeping Econfina Creek as natural as possible, and comments complimentary of the Econfina Creek experience and the current management of the area (Table 3.3-7).

Table 3.3-7. Additional Comments of ECWMA Canoeists (n=102)

Comment	Percent
Increase enforcement of rules against loitering and drinking at bridges	27
Keep Econfina Creek sites as natural as possible, don't "overdevelop"	12
Good management, beautiful area	11
More unrestricted public spaces (e.g., less restrictions on springs, allow dogs)	10
Reopen, improve, or add boat launches	9
Employ a full-time attendant at Pitts Springs	7
Provide new public areas (e.g., group camps, creek rest stops, picnic areas)	6
Restrict motor boats from Econfina Creek	4
Continue to pick up trash	4
Reopen McCormick Springs	3
Remove logs, trees, branches from creek	3
Provide more rope swings	2
Improve canoe rental screening process (e.g., prohibit alcohol)	2
Continue to have permit-only areas	1
More, better parking	1
More accurate predicted length of canoe trips	1
Cheaper canoes	1

3.3.4.4 Survey of Permitted Users

A mail survey of permitted users was performed October to December 1999. A systematic sample of permitted users (every 20th record = 5 percent) was selected from the ECWMA database (n=187). This systematic method is equivalent to a random sample. The survey was designed in consultation with NFWMD staff, and included six questions to measure recreational activities and sites and eight questions to assess attitudes about crowding, satisfaction, restrictions, and user fees. Several open-ended questions solicited comments and suggestions on improving the ECWMA recreational experience. Because the survey was completely anonymous, there was a space to fill in the respondents' city and state of residence to assess geographic spread of responses.

Two mailings of the survey were made to maximize response rate. A final response of 15 percent was achieved (n=27). While this response rate is low, it is not unexpected in a climate where survey response rates around the country have fallen in the last decade from 50 percent to around 20 percent as fewer and fewer people agree to participate in survey research (*New York Times*, November 21, 1999).

Of those selected to receive the survey, 48 percent were hunters, 47 percent were non-hunters, and 5 percent were group campers. Of those who responded, 44 percent were hunters, 45 percent were non-hunters, and 11 percent were group campers. In addition, 78 percent survey respondents were from Bay County, 19 percent from Washington County, and 4 percent from other counties in northwest Florida, which closely mirrors the overall geography of the permit-holding population (refer to Section 3.3.2). Although the survey response rate was low, these demographic data suggest that the survey is an unbiased representation of the population of permitted ECWMA users.

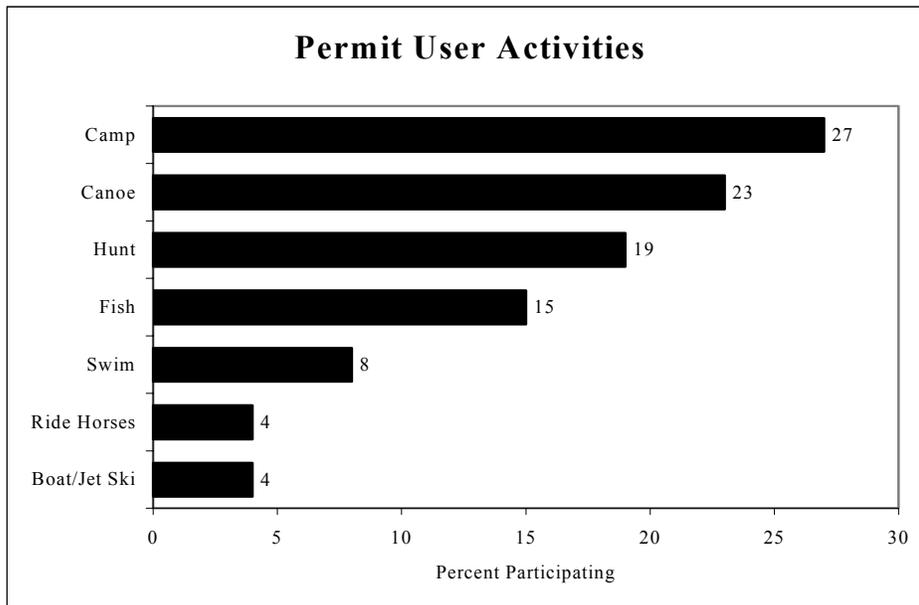
Respondents reported their outdoor activities on ECWMA in the past year (Table 3.3-8).

Table 3.3-8. Percent of Permit Holders Participating in Outdoor Activities (n=27)

Outdoor Activity	Percent Participating
Canoeing	81
Freshwater Fishing	78
Swimming	78
Camping	70
Picnicking	67
Walking/Hiking	56
Hunting	44
Bird/Nature Observation	33
Boating/Jet Skiing	33
Bicycling	22
Horseback Riding	7
Other	7

When asked what was their *main* outdoor activity at ECWMA, respondents indicated a variety of recreational opportunities as their most frequent activities (Figure 3.3-4).

Figure 3.3-4. Main Outdoor Activity Reported by Permitted ECWMA Users (n=26)



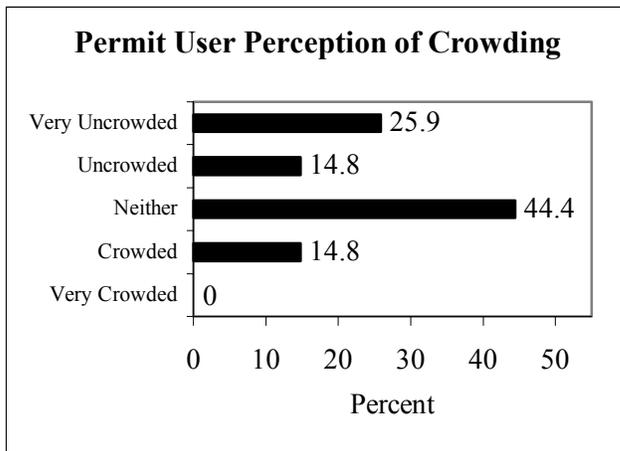
To assess patterns of use of ECWMA, permit holders were asked which areas they had visited at any time in the past (Table 3.3-9).

Table 3.3-9. Percent of Permit Holders Reporting Past Visits to ECWMA Sites (n=89)

Area	Percent Visiting
Econfina Creek	70
Porter Lake	48
Rattlesnake Lake	41
Still Hunt Area	41
Blue Springs	41
Williford Spring	41
Walsingham Park	26
Primitive Camps	26
Pitts Spring	15
Dog Hunt Area	7
Sparkleberry Pond	7
Florida Trail	7
Hammock Lake	4
McCormick Springs	4
Small Ponds	4

Permitted ECWMA users were asked several questions to elicit attitudes about the recreational experience. When asked how crowded ECWMA was the day of their most recent visit, responses averaged 2.5 on a scale of 1 = very uncrowded to 5 = very crowded (SD=1.1, n=27). The frequencies of responses on crowding definitely tended toward the uncrowded end of the spectrum, and it is notable that none of the respondents said that ECWMA was very crowded on the day of their last visit (Figure 3.3-5).

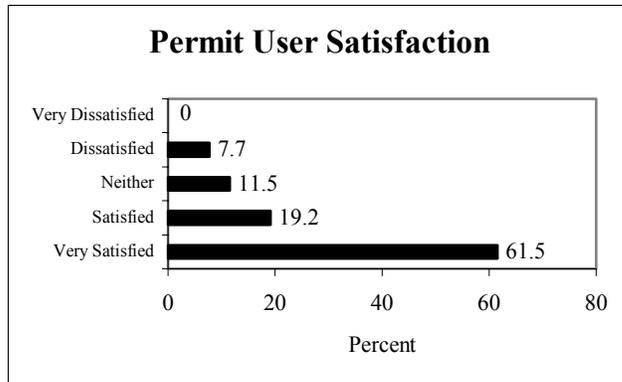
Figure 3.3-5. Crowding Perceptions of Permitted ECWMA Users (n=27)



Nevertheless, nearly a quarter of permitted users (23 percent) felt some sites were overcrowded (n=26). Areas that were cited as overcrowded by those who commented (n=5) were dog hunt areas, hunting areas in general, Porter Lake, Devil’s Hole primitive campsite, and Hammock Lake. Suggestions for alleviating overcrowding (n=5) included better enforcement of rules by game officers; reducing the number of dog hunters; and better enforcement of general rules against littering, outboard motors, and jet skis.

Regardless of their perception of crowding, permitted ECWMA users were fairly satisfied with their recreational experience, averaging 4.3 on a scale of 1 = very dissatisfied to 5 = very satisfied (SD=1.0, n=26). Nearly two thirds of respondents (62 percent) were very satisfied, and a total of 81 percent were either satisfied or very satisfied with their recreational experience. None of the respondents said that they were very dissatisfied with their experience. This is a high level of approval for the recreational experience of ECWMA permit holders (Figure 3.3-6).

Figure 3.3-6. Satisfaction of Permitted ECWMA Users (n=26)



Permitted users were asked a series of questions to obtain opinions about various tactics for dealing with or controlling overuse of ECWMA. Mean responses on a scale of 1 = strongly disagree to 5 = strongly agree are summarized below (Table 3.3-10). Note that the lower the standard deviation (SD), the more “central” the response – in other words, the more people’s opinions agree with each other. The table is followed by a series of charts showing the distribution of responses to the opinion questions (Figure 3.3-7). The distribution of responses is important because it reveals information that is masked by the simple reporting of the average responses. These figures show that there are strong levels of agreement to reduce or eliminate destructive uses of ECWMA. On the questions concerning attitudes about user fees, although the average responses are the same, there is a substantial group of respondents (19 percent) that disagrees with the concept of general user fees. There also remains substantial resistance to the general idea of restricting visitors in overused areas, with nearly 30 percent of respondents in disagreement.

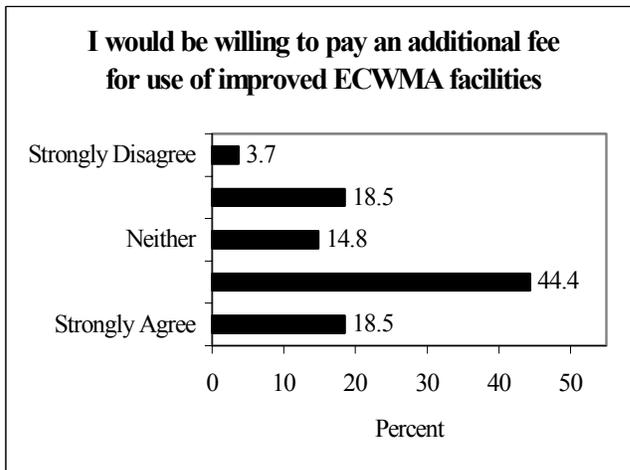
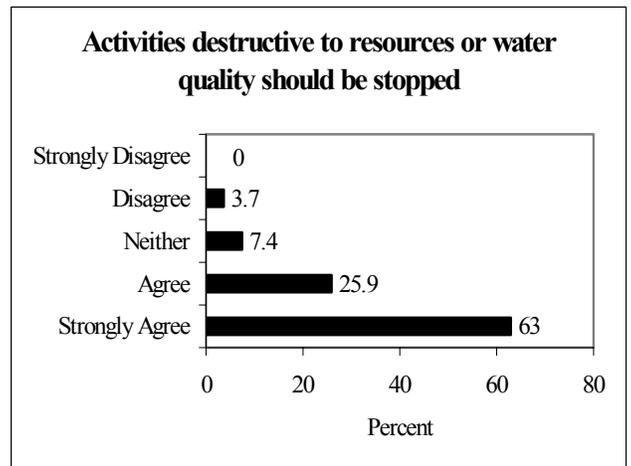
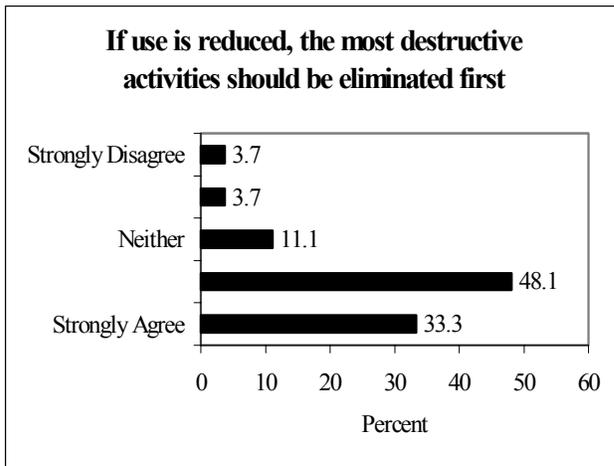
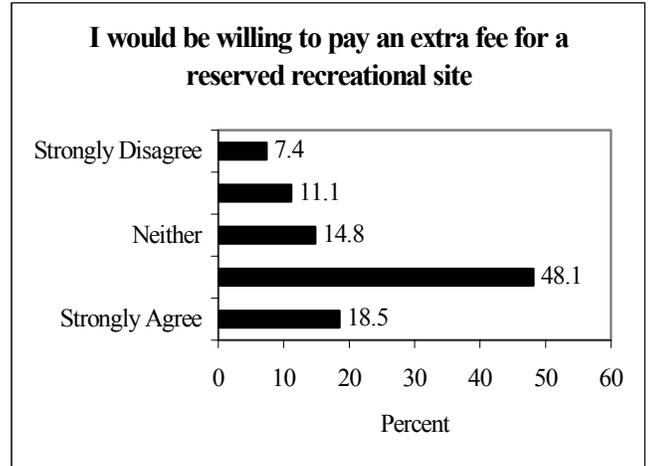
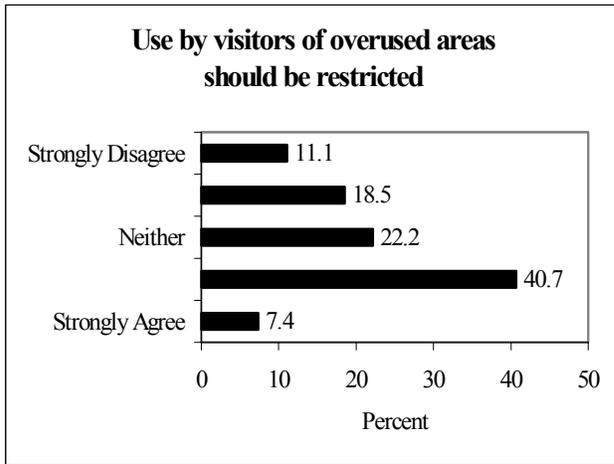
Table 3.3-10. Mean Attitudes of Permitted Users on Overuse and User Fees (n=27)

Statement	Mean	SD
If an area is becoming overused, then the level of use by people should be restricted	3.1	1.2
If use of a specific area must be reduced, it would be better to eliminate the most destructive activities rather than reduce all uses proportionally	4.0	1.0
If an activity is destructive to natural resources or water quality, it should be stopped	4.5	0.8
I would be willing to pay an extra fee for a reserved recreational site, for example, a group camp site for a weekend	3.6	1.1
Permits are required for hunting, camping, or fishing in ECWMA. I would be willing to pay an additional or higher fee for the general use of improved areas and facilities in ECWMA	3.6	1.1

Two open-ended questions allowed for comments and suggestions about improving the ECWMA recreational experience for permitted users. The most frequently mentioned items had to do with reopening the popular Rattlesnake Lake, providing expanded recreational facilities, providing more detailed maps and signage, and keeping ECWMA as undeveloped as possible. Those who responded (n=35) had the following suggestions:

- Reopen Rattlesnake Lake (n=5)
- Provide more facilities like shelters, fire rings, trash cans, port-o-lets (n=3)
- Provide more detailed maps and signs, print rules on permits (n=3)
- Keep ECWMA natural and undeveloped, very enjoyable and beautiful (n=3)
- Provide more primitive campsites (n=2)
- Provide more trash pickup and encourage creek cleanup by canoe (n=2)
- Expand hunt areas, provide feed plots (n=2)
- Eliminate hunting altogether (n=2)
- Allow people to reserve more than one weekend at a time (n=2)
- Allow alcohol consumption at sites (n=2)
- Provide more lake sites for camping, jet skiing, and swimming (n=1)
- Don't raise permit fees—too high already (n=1)
- Increase fines for littering and alcohol abuse (n=1)
- Limit the number of people on ECWMA (n=1)
- Coordinate burns to not impact campers (n=1)
- Reopen McCormick campsite (n=1)
- Keep dogs out of the still hunt areas (n=1)
- Open more roads (n=1)
- Allow ATV riding on utility rights-of-way (n=1)

Figure 3.3-7. Responses of Permitted Users to Attitude Questions (n=27)



3.3.1.5 Comparing Permitted and Non-Permitted Users

There were not enough responses to the survey of permitted users to perform a comparison of user groups. Because the survey of canoeists was not performed in a random manner, statistical comparisons between the respondents to the canoeist survey and respondents to the permit holders' survey would not be permissible.

One way to compare groups, however, is to visually compare the trends between the results of the two surveys. For example, while both groups most frequently reported canoeing as one of their outdoor activities on ECWMA, when asked about their main outdoor activity, over two-thirds of canoeists predictably reported canoeing. Permitted users more frequently reported fishing, camping, hiking, hunting, boating, and bicycling than did canoeists, and reported a broader variety of things (camping, canoeing, hunting, and fishing) as their main activities. While canoeists primarily used areas along and near Econfina Creek for their recreational activities, permitted users more frequently reported using ECWMA's lakes, group areas, hunting areas, and primitive camps. Permit holders had a lower average perception of crowding (2.5) than did canoeists (3.0), probably because permit holders visit more remote areas of ECWMA or use exclusively permitted group areas. Nevertheless, about one-quarter of each group feels that some ECWMA areas are overused. Both groups report high levels of satisfaction with their ECWMA recreational experiences.

Although comparing groups was not a goal of the survey of canoeists, because 11 percent of the respondents were permitted users, we were able to perform a brief statistical comparison of attitudes between permitted and non-permitted users. Recreational activities and perceptions of crowding did not significantly differ between the groups. A few differences were detected, however, in the patterns of use between permitted and non-permitted respondents (n=87). For example, significantly more of the permitted users than expected had visited Walsingham Park ($\chi^2=5.0$, $p=0.03$) and Rattlesnake Lake ($\chi^2=9.0$, $p=0.003$). This suggests that the permitted users are more familiar with the recreational offerings of the entire ECWMA area, whereas non-permitted users primarily focus on the creek and springs.

Levels of satisfaction also differed between the two groups, with permitted users being significantly less satisfied (4.2) than non-permitted users (4.7) on the scale of 1 = very dissatisfied to 5 = very satisfied ($t=2.8$, $p<0.01$, $n=126$). This satisfaction level specifically pertains to the canoeing experience on the day of the survey and therefore could be an expression of dissatisfaction on the part of permitted users with more developed recreational areas when they are accustomed to more remote areas.

The other major difference between the groups is that there is a trend of a greater proportion of non-permitted users being from urban areas (southern Bay County: Panama City and Panama City Beach), whereas a greater proportion of permit holders are from rural areas (northern Bay and Washington counties). This trend is reflected in data from the ECWMA permitted-user database. There is a more detailed discussion of this phenomenon in the next section on recreational demand.

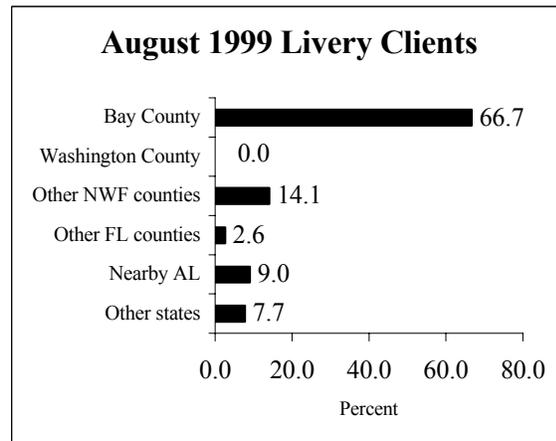
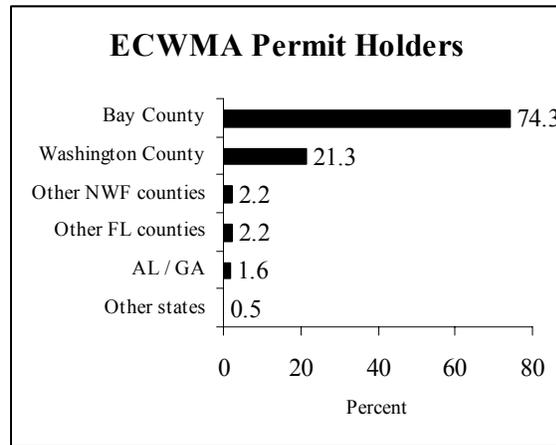
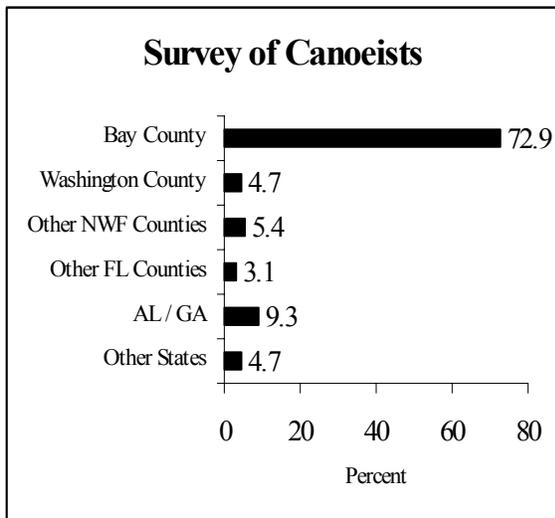
3.3.2 Current and Future Recreational Demand

3.3.2.1 Current Recreational Geography and Demand

Current recreational demand was examined by looking at user geography and numbers through many of the survey methods employed in the public involvement strategy. Geographical data were available from (1) a systematic sample of 5 percent of permitted users (NFWMD list), (2) a survey of canoeists (n=131), and (3) a systematic sample of 10 percent of the August release-form records from one of the canoe livery services (Figure 3.3-8). The geographic data reveal some interesting user demographic trends:

- The overwhelming majority of ECWMA users are from Bay County
- The majority of users from Washington County are permit holders engaging in more traditional uses such as hunting and fishing
- A higher proportion of low-impact users (e.g., canoeists) come from areas beyond Bay and Washington counties

Figure 3.3-8. Geographic Distribution of Various ECWMA Users



Planning efforts are aided by the knowledge of how many people are currently using a recreational area. Because ECWMA is public land with county roads passing through and because many recreational uses of the area (e.g., canoeing, picnicking, swimming) do not require a permit from NFWMD, there is no way to determine an exact number of users or user visits for the area. However, a picture of user demand can be obtained from several sources.

In the last fiscal year of permit sales (1998-1999), NFWFMD sold 4,091 permits in Bay and Washington counties. Permitted users at a similar panhandle recreation area (Eglin Air Force Base) participated in hunting, fishing, or other outdoor recreation an average of 1.3 days per year (Marynowski, 1995). This suggests that permitted ECWMA users make a total of approximately 5500 visits in a year.

From the document analysis of August 1999 release records for one canoe livery, there was an average of 1.96 adult users per canoeing group, with approximately 1,530 user visits in August at this livery. These results are tallied as number of “visits” instead of number of users because some trips may have been by repeat visitors. Based on an equivalent of a season of 3 very active months (June, July, August) and several months of reduced activity, this figure could be multiplied by 5 for a conservative estimate of 7,650 visits annually at this livery. Assuming relatively equivalent sizes of the canoe liveries, this would yield 15,300 total canoeist visits to Econfina Creek each year.

The remaining portion of users is more difficult to estimate. These users are non-permitted recreational users who are not renting canoes. This group includes people picnicking, camping, swimming, and using their own boats at ECWMA. An in-depth study probably would be required to determine the number of visitors in this group. However, based on an estimate of 50 visitors per weekend day and 10 visitors per weekday (150 per week or 600 per month) at Pitts Springs in the summer, a conservative estimate of the number of informal visits to ECWMA would be 3,000 visits per year. When put together, these three rough estimates give an indication of the current demand for ECWMA recreational resources (Table 3.3-11). This demand is expected to grow in the future.

Table 3.3-11. Estimated Annual Number of Recreational Visits to ECWMA

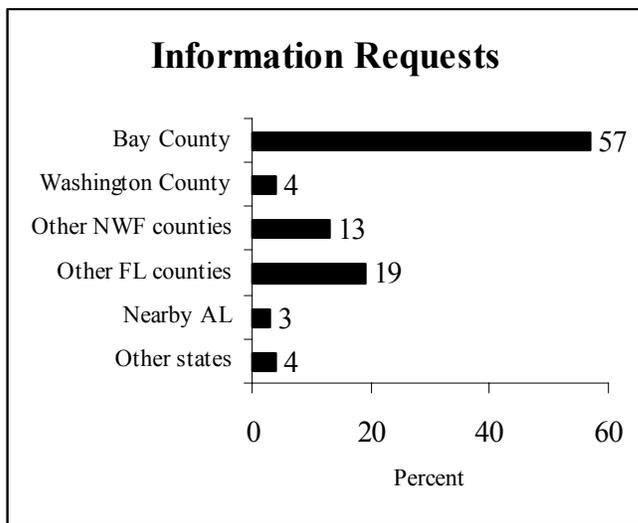
User Category	Estimated Annual Number of Visits to ECWMA
Permit Holders	5,500
Canoeists	15,300
Other Recreationists	3,000
TOTAL	23,800

3.3.2.2 Future Recreational Geography and Demand

There is no way to know where future visitors to ECWMA will come from. However, trends in visitation indicate an increase in interest in ECWMA from people outside the immediate area—from other counties in Florida and from other states. As tourism increases in the Florida panhandle and Panama City Beach area, and as public interest increases in ecotourism activities, interest in day trips to unique natural locations is sure to increase. ECWMA is ideally located to capture some of this growing public interest in the future, but it must be prepared to provide guidance and education for inexperienced visitors and enhanced protection for water quality and natural resources impacted by outdoor recreation. Meanwhile, panhandle communities are growing at an annual rate of 10 to 15 percent, adding further to the pool of potential “local” recreational visitors for ECWMA.

To examine future demand, it is necessary to determine where ECWMA users of the future might come from and what kind of recreation they might be interested in. People requesting information from NFWFMD represent one potential group of future users. During the period February 16, 1999 to June 29, 1999, information requests came from locations that differ from the previous graphs of current user geographic distribution. Compared to the geographic distribution of current ECWMA recreational users, fewer information requests are coming from residents of Bay and Washington counties, and a higher proportion of requests are coming from people in other Florida counties (Figure 3.3-9). This speaks to a trend of increased use of ECWMA by people from outside the immediate area.

Figure 3.3-9. Geographic Distribution of Requests for ECWMA Information, February 16, 1999 to June 29, 1999.



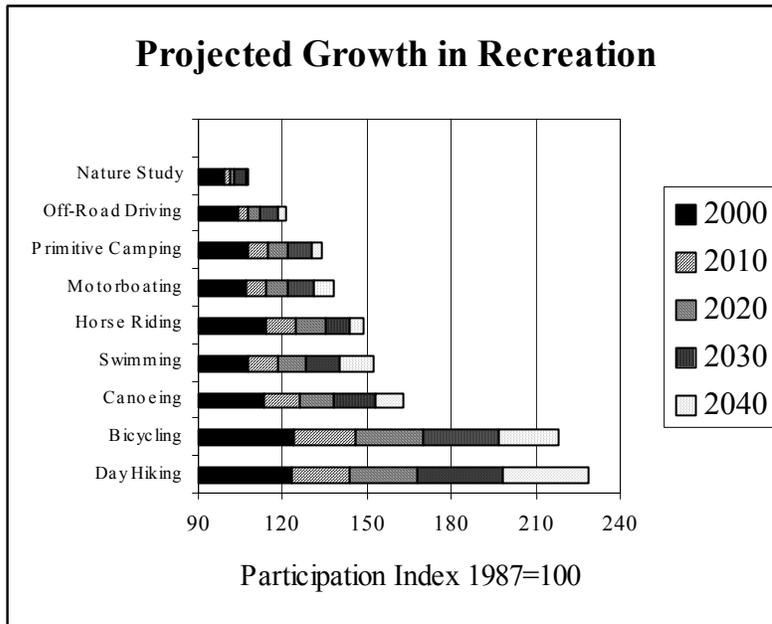
3.3.2.3 Future Recreational Demand

One hundred people requested information by telephone from NFWFMD during the 134-day period surveyed, suggesting that the total number of information requests per year would be approximately 272. Although this doesn't indicate how many new users will visit ECWMA in a given year, it can be used for comparison with information request rates in future years.

The type of information requested by information seekers gives clues to the recreational interests of future ECWMA visitors. Information requests were 52 percent for general recreational information and maps, 40 percent for information about Econfina Creek and area springs, 7 percent for hunting information, and 1 percent for horse trails information. These data hint at a shift from more traditional forms of recreation (e.g., hunting) to more non-consumptive recreational forms (e.g., canoeing, swimming). This shift in recreational interests has been documented across the United States. Demand for low-impact forms of recreation is expected to increase 86 percent over current levels by 2040. Demand for fishing is expected to increase approximately 45 percent by 2040, whereas demand for big- and small-game hunting is expected to decline by 10 percent during the same period (US Forest Service data in Flather and Cordell, 1995 and Dwyer, 1994).

Forecasts are available that predict the types of recreation that will be more popular in the future. Forty-year national predictions for non-game recreation anticipate that the overall growth for nature study (9 percent), off-road driving (16 percent), primitive camping (24 percent), motor boating (29 percent), and horseback riding (31 percent) will be moderate. Demand for lake and stream swimming (41 percent), canoeing/kayaking (44 percent), bicycle riding (76 percent), and day hiking will be high (86 percent) (USDA Forest Service, 1992). This translates to an annualized national growth in recreational demand between 0.2 and 2.1 percent over the next 40 years (Figure 3.3-10).

Figure 3.3-10. Projected Growth in Non-Game Recreation, 2000-2040



Because these growth projections are national, they do not take into account the supernormal population growth in states like Florida. For example, counties in the Florida panhandle are now growing at an annual rate of 10 to 15 percent, and recreational demand would be expected to show similar growth, along with any additional demand brought on by growth in tourism and increased interest in nature-based tourism.

The most recent Florida Statewide Comprehensive Outdoor Recreation Plan (SCORP, 1994) forecasts recreational needs in the state by region. In keeping with overall population growth, the SCORP analysis for the West Florida Region (Bay, Escambia, Holmes, Okaloosa, Santa Rosa, Walton, and Washington counties) predicts increasing demand in all areas of outdoor recreation (Table 3.3-12). Even hunting, which is declining nationally, is expected to increase slightly in western Florida (although this could be viewed as a net decrease since population in the area is growing at 10 to 15 percent per year).

In particular, there is unmet demand in the region for the following forms of recreation (highlighted in Table 3.3-12 below):

- Freshwater beaches
- Non-boat freshwater fishing (piers)
- Hiking trails
- Horseback riding trails
- Bicycle riding trails

Table 3.3-12. Projected Recreational Demand/Needs, West Florida Region, 1995-2000

Recreational Activity	1995	2000				
	Demand	Resource Needs	Units	Demand	Resource Needs	Units
Freshwater Beach	649,831	0.22	Miles	706,216	0.36	Miles
Freshwater Fishing (Boat)	448,304	*		477,207	*	
Freshwater Fishing (Non-boat)	479,669	8,799.70	Pier Feet	528,708	10,014.62	Pier Feet
Freshwater Boat Ramp	221,988	#		236,301	#	
Picnicking	1,233,391	#		1,387,162	#	
Canoeing	64,451	*		68,606	*	
Hiking	1,084,272	137.03	Miles	1,255,596	179.47	Miles
Horseback Riding	352,313	36.24	Miles	375,028	40.93	Miles
Bicycle Riding	2,377,678	137.07	Miles	2,610,660	153.5	Miles
Hunting	161,840	#		172,274	#	
Nature Study	387,466	#		423,313	#	
Tent Camping	81,636	#		86,900	#	
*Needs not calculated by DEP.						
#Needs have been met in region.						

3.3.3 Description of Recreational Areas and Issues

3.3.3.1 McCormick Springs

Description: This former group overnight camp and picnic site is located south of Econfina Creek Field Office (south of Highway 20) on the east side of Econfina Creek. The spring has a ¼-mile-long run with trails leading to multiple, small spring heads. A unique feature of the spring is giant, non-metamorphic tadpoles. McCormick Springs is located directly across from Gainer Springs, a first magnitude spring, which is owned by the Patronis family and is under license for bottled water production.

Issues: The McCormick Springs site is now closed to the public as a group campsite because users were crossing the creek and adversely impacting the Gainer Springs complex. The NFWMD did not want to be responsible for negative impacts on water quality at neighboring private springs. There also is a concern that overnight users might disturb the Econfina Creek Field Office facilities nearby. Nevertheless, McCormick Springs is still a popular stopover for canoe parties from the creek. Facilities remaining in place include a fire ring, grill, picnic tables, and toilet. There is erosion along the creek bank and along the trails to the spring heads at McCormick Springs. There is litter

at the site from picnickers. The site is not clearly labeled as to ownership (signs of previous owner still in place) or status (i.e., group camp sign still in place).

3.3.3.2 Hillside Restoration Site

Description: The “hillside restoration site” is located directly south of the Econfina Creek Field Office and east of Econfina Creek. There is a small creek on the site that disappears down a solution hole. The hillside is an example of mixed habitat restoration techniques using longleaf and loblolly pine and mixed upland hardwoods on a former improved pasture site. The site also includes a former Indian village site according to the State of Florida archeological site files.

Issues: Any future use of the area will have to be controlled because of proximity to the Econfina Creek Field Office. The archeological and ecological interest of the site make it a potential location for an environmental education trail or visitors facility in the distant future.

3.3.3.3 Pitts Springs

Description: Pitts Springs is located directly north of Highway 20 and west of Econfina Creek. It includes a large spring pool developed as a “Day Use Only” picnic and swimming area. Pitts Springs is open on weekends and holidays for the period November 1 through March 31, and daily from April 1 through October 31. There is a fairly regular presence of county law enforcement personnel at the site to control crowd behavior. Facilities include a gravel entry road and 25-car parking area, toilets, two pavilions, picnic tables, benches, boardwalks, and a partially hardened spring enclosure with steps for swimmers to enter the pool. Large rocks have been placed in the short spring run to prevent canoes from entering the swimming area. There is a dock at the creek for canoes to tie up or for people to enter the creek.

There are a number of trails around the Pitts Springs area. One leads along the bank of the creek from the road to the spring. This trail is used when the gates are closed or when tubers or canoeists work their way upstream from the road or creek. There is a trail that leads north along the creek on the inside of the protective chain link fence. Visitors use this trail to walk upstream and then float downstream to Pitts Springs. The upstream trail also leads to private property on the west of the creek where people go to drink alcohol and float downstream. There is a developed trail leading west and north from the parking area through the floodplain forest to several small spring runs and a creek oxbow area. NFWFMD plans for this to be developed into a 2- or 3-mile interpretive nature trail loop. An alternative trailhead with limited parking is being proposed for Strickland Road. A large auxiliary parking area for canoeists has been developed about ¼ mile east of the creek on Highway 20.

Issues: Pitts Springs is the most intensively used site in ECWMA. Anywhere from 30 to 100 people use the area on summer weekend days. Heavy use will likely continue at this site. As expected, there are significant impacts from heavy use. The native vegetation has completely disappeared in a large radius west of the spring pool. Recently, NFWFMD has contracted to extend the existing rock retaining wall completely around

the spring pool and plans to construct concrete steps to replace the existing wooden steps. The recently constructed gravel road, boardwalks, and turfgrass are appealing and have helped mitigate impacts. Crowd behavior reportedly gets out of control when sheriff's patrols are not present. Overcrowding of the new parking area, particularly by people who are not using Pitts Springs (e.g., canoeists), may be a problem in the future if the DOT blocks roadside parking.

The spring itself has been partially hardened (~70 percent) to stop erosion. A fence to keep people off the bank of the unwallied portion of the spring is failing and is aesthetically unappealing. There is erosion on the portion of the spring that is not hardened. There is erosion associated with the undesignated trails in the area. People who want to tube down the creek circumvent a fence to access the upstream trail. The canoe dock at the creek is inadequate for the level of weekend use and is sometimes too high for people to comfortably get in and out of canoes, depending on water levels. As a result, most canoes crowd into the spring run just beyond the rocks to load or unload and cause spring run erosion.

The auxiliary canoeist parking area is seldom used because it is too far from the creek and has no trail or road to the creek for canoe launching. Large numbers of people continue to park and loiter along the roadside on both sides of the creek. This may change as the DOT institutes measures to prevent roadside parking and loitering. There is a need for canoe and small boat launching sites close to the creek and accessible by car.

3.3.3.4 Mobility-Impaired Hunting Area

Description: ECWMA provides one of the few limited mobility-impaired hunting (MIH) areas in the panhandle region. MIH areas include the 2301 Tract (southeast ECWMA), the Hobbs Pasture area (south of Highway 388 and west of the creek), and the Enfinger Road areas (east of Enfinger Road and between Highway 20 and Highway 388). These areas feature hardwood hammocks and ridges along the creek, with an exceptional mature bottomland hardwood forest near Cat Creek. These areas have a limited number of private inholdings, and some are closely bordered by large, private landholdings. Road improvements are planned for key access roads within the MIH area.

Issues: The upland parts of some of these areas are undergoing intensive habitat restoration activities, including complete removal of offsite sand pine species, herbicide site preparation treatments, and planting of longleaf pine tubelings. Hunters and other visitors may not fully understand the magnitude of restoration activities in these areas. There is great potential for an interpretive trail and/or a limited mobility-impaired trail in the bottomland hardwood forest at Cat Creek.

There is potential for group campsites (e.g., <12 people, weekends only, closed during MIH season) and boat ramps (good fishing resource, Deer Point Reservoir just downstream) on the creek at lower Hobbs Pasture (2), Enfinger Road, and Cat Creek. These sites could be targeted to an audience of small-boat anglers. The Hallmon Tract, an isolated 46-acre woodland surrounded by private land, has been proposed as a

potential MIH small-game area. Currently there are no facilities at these sites, and access roads are rough and remote.

The creek bank in these areas is suffering from erosion due to use by canoeists and occasional trespassers. The bank is very steep on some of these sites. The lower part of the creek is eutrophic due to the flooding from the reservoir—the presence of cattails indicates some excessive nutrient loading. Motorboats and jet skis from the reservoir may come up this section of the creek. Trespassing and unauthorized use of this potential weekend group campsite may be a problem without adequate law enforcement.

3.3.3.5 Highway 388 Bridge

Description: The Highway 388 crossing of the Econfina Creek is the main canoe take-out point on the lower creek for people paddling downstream from Highway 20 or either of the canoe livery services near Highway 20. The bridge area also is used for parking, swimming, canoe launching, and picnicking.

Issues: There often is a large, unruly crowd of people at the Highway 388 bridge, causing a traffic and safety hazard. People are illegally parking and consuming alcoholic beverages along the DOT right-of-way. Canoe livery services and individual canoeists have difficulty taking boats out because of crowding and behavioral problems at this site. NWFWMD does not own land near the bridge, although there may be potential for future purchases.

3.3.3.6 Gainer Pond

Description: Gainer Pond is west of Econfina Creek off the Enfinger Road south of Highway 20. The site is surrounded by restoration and planted pinelands, but the area immediately around the pond is in mature slash pine forest. Facilities for a small private fish/hunt camp (building and dock) remain on the site. There is an additional small pond or marsh just west of Gainer Pond.

Issues: Gainer Pond has the potential to be a youth environmental education site. NWFWMD is seeking a grant or sponsor to develop this site.

3.3.3.7 Wolf Pond

Description: Wolf Pond is west of Econfina Creek off of Enfinger Road south of Highway 20. This large, remote pond is an old campsite area. It has an outstanding population of SBSJW and is surrounded by mature offsite slash pines.

Issues: Wolf Pond is a potential group campsite for the non-hunting season.

3.3.3.8 Williford Springs

Description: Williford Springs is a weekend-only, day-use only, group campsite located west of Econfina Creek on the Porter Lake/Strickland Road. It is located next to the Econfina Creek Canoe Livery. Use of the camp area is by permit only. Facilities include picnic tables, trashcans, pedestal grills, a portable toilet, picnic tables, and steps leading

down into the spring. The spring is partially hardened (~25 percent) along the shore of the day-use area. The spring run is fairly long, and the spring area is not visible from the creek. The site has a long history of use by canoeists.

Issues: Canoeists from the creek regularly come up the Williford Springs run to visit the springs. Many people exit their canoes and stand in the spring pool. Canoeists are attracted to use the site facilities, disturbing the privacy of the group that has reserved the site. Canoeists are causing erosion on the unprotected banks of the springs and presumably on the vegetation in the spring pool.

3.3.3.9 Blue Springs

Description: Blue Springs is a large spring pool located east of Econfina Creek on North Blue Springs Road. The long spring run enters an oxbow lake connected to the creek. The site is a former Boy Scout camp, now developed as a weekend permitted-group campsite. Some old buildings remain on the site. The site includes a parking area and a developed camping area able to accommodate larger groups. The spring flow enters the pool from the side through a rock cave system. Endemic freshwater snails (endangered?) and large Alligator Snapping turtles (a Florida Species of Special Concern) inhabit the springs. Few canoes reach this site because of the rugged nature of the creek and spring run below (lots of fallen logs).

Issues: The Blue Springs site is heavily used and therefore is heavily impacted on one side of the springs. Some litter is visible at the site. Blue Springs is bordered by private land, so development is visible from the group camp. Visitors may not understand the importance of protecting the special and endemic species of the springs. There are a number of feral cats at the site. There is the possibility of a hiking trail between the Blue Springs and the Sparkleberry Pond group campsites.

3.3.3.10 Sparkleberry Pond

Description: Sparkleberry Pond is east of Econfina Creek and north of Highway 20 off of North Blue Springs Road. It is a classic example of a sandhill karst lake, bordered by sand live oak forest and surrounded by offsite sand pine plantations on a former xeric sandhill upland vegetation community. The water level of the lake fluctuates. It opened in May 1999 as a weekend permitted-group campsite, designed for people who want to do a little fishing and have solitude. The group campsite is under a stand of shady oaks at the western end of the pond, where there is a small beach area. The shallow lake is surrounded by a healthy population of SBSJW (endangered endemic).

Issues: There is major erosion on the steep hillsides located to the north and south of the lake where off-road vehicles were driven in the past. Recently the north hillside has been stabilized by the local Soil and Water Conservation District. The beach-like area has been heavily used, leading to impacts on SBSJW. The surrounding longleaf pine restoration projects are aesthetically unappealing. Longleaf pine restoration on the hills directly bordering the pond is planned for the near future. There is the possibility of a hiking trail between Blue Springs and Sparkleberry Pond. The site is underused, and there is a problem with ATV and horse trespassing on the site.

3.3.3.11 Walsingham Park

Description: Walsingham Park is about a third of the way upstream on Econfina Creek between Highway 20 and Scott Road. It is located where the Walsingham Bridge Road crosses the creek. There is a county-maintained road easement to the bottom of the steep hill located west of the creek. The road then became NFWFMD property and travels east to the Walsingham Bridge. This road is currently open and provides access along the east side of the creek north of Walsingham Park. The Walsingham Park is developed as a picnic and primitive camping area, with toilet, trashcans, and picnic facilities. It is the typical canoe take-out spot for trips from Scott's Landing on the upper Econfina Creek. The run from Walsingham Park to Blue Springs is rugged and full of logjams.

Issues: Serious erosion on the steep creek bank at Walsingham Park is undermining the canoe launch ramp and hardening structures.

3.3.3.12 Primitive Camp Sites: Bluff or Grissett, Longleaf, Devil's Hole, Shell, Walsingham, Anise

Description: These sites are open to use by anyone without reservations, although a NFWFMD permit is required. Fire rings, picnic tables, and trashcans are provided at the sites. Bluff, Longleaf, Devil's Hole, and Sea Shell sites are on the east side of Econfina Creek, above Walsingham Bridge. The Walsingham and Anise sites are on the west side of the creek, at and below the Walsingham Bridge road. Most are accessible by car, although the Anise site is accessible by canoe only.

Issues: Although access to these sites is not controlled, the sites do not yet seem to be overused or abused. All of these sites have erosion problems from overuse of the creek banks. The banks of the Devil's Hole (solution hole) are seriously eroded and the water is eutrophic from excess nutrient runoff. There has been a problem with people making rope swings at the Devil's Hole swimming area. Sanitary stations are planned for most of the sites.

3.3.3.13 Quota Hunt Areas

Description: There are two quota hunt areas on ECWMA. The Southwest Quota Hunt Area is west of Enfinger Road and south of Highway 20. Kennedy, Asphalt Plant, and Wolf Pond roads cross this area. The Northeast Quota Hunt Area is east of Econfina Creek and north of a line parallel to the Greenhead Road. Access to this area is by way of the public easement off Scott Road. These areas are open to traffic all year and are used for limited quota (lottery) still hunting during deer and turkey seasons. FFWCC establishes rules and regulation for these areas, and NFWFMD manages the quota hunt permits.

Issues: Parts of the quota hunt areas remain in thickly planted sand pine, with longleaf pine restoration planned for the future. Open access to areas may become a problem when recreational demand increases in the future.

3.3.3.14 Ring Road/Owenwood Road

Description: Owenwood Road and Ring Road provide access through private lands from Highway 231 to Econfina Creek and lands east of the creek and north of the terminus of the Walsingham Bridge Road. These parcels are not open to vehicular access. There is a sandhill ridge near the creek at Ring Road that is in good condition. There is a beautiful small steephead stream systems next to the creek bluff at the Ring Road site.

Issues: Exceptional resources such as the Ring Road sandhill and steephead stream system will need to be protected. There is serious erosion cutting away at the creek bank at Ring Road. This site could potentially be developed as a canoe-access picnic site. This road has been used in the past as to take out canoes from the creek. Increasing development in the area will lead to increased pressure on the resources in this narrow strip of land east of the creek.

3.3.3.15 Scotts Road Canoe Launch

Description: Scotts Road Canoe Launch is at the Scotts Road bridge over Econfina Creek. It is the farthest north put-in site for upper creek canoe trips. Neighbors are nearby, and there is development beyond the narrow NFWMD land here.

Issues: The bridge crossing, road, and sandbag launch/drainage areas are well hardened, and erosion is minimal. Impacts to the area appear to be minimal. There is potential for adding some safe and unobtrusive parking spaces for canoeists bringing their own cars. There is potential for developing a small group camp area here.

3.3.3.16 Upper Econfina Creek

Description: The upper part of Econfina Creek is the section from Scotts Road to Williford Springs, approximately 15 miles in length. The part most commonly used by paddlers is from Scott's Landing to Walsingham Bridge. This uppermost section is characterized by high limestone walls, sandy bluffs, and slope forest grading into longleaf pine sandhills. The creek is swift and narrow, often only 6 feet wide, and has a number of fast-water limestone chutes. The section from Walsingham Bridge to Williford Springs is characterized by shallow water, oxbow lakes, and log jams. It is infrequently run by canoeists. Canoe livery services are available to drop off or pick up canoeists in the area. There is a high level of solitude on the upper creek.

Issues: All parts of the upper Econfina Creek are for skilled paddlers. Erosion is taking place on creek banks where paddlers stop for breaks.

3.3.3.17 Lower Econfina Creek

Description: Econfina Creek from Williford Springs (Econfina Creek Canoe Livery) to Highway 388 is approximately 7 miles in length and characterized by slow-moving dark water, numerous springs, recreational sites, and a high degree of social contact.

Issues: Lower Econfina Creek is suitable for paddlers who are less experienced and who are seeking less solitude. Erosion is taking place on creek banks where paddlers stop, especially near and around springs and bridges.

3.3.3.18 Porter Lake

Description: Porter Lake is a large body of water that is only partly in NFWWMD ownership, mostly the western shore. Because the lake is developed, it is populated with boats, jet skis, swimmers, and other water recreationists. NFWWMD has two recreational sites on the lake for picnicking, swimming, boat launching, and camping without a permit. The sites are White Oak and Tom John's Landing. These sites have toilets, fire rings, grills, picnic tables, and pavilions.

Issues: Beaches are denuded of native vegetation, particularly SBSJW that historically occurred around Porter Lake. Boats are pulling up on beaches in the same areas with swimmers. There is erosion around the boat ramps and on some beaches. There is potential for developing additional camp and picnic sites on Porter Lake between Tom John's Landing and White Oak sites. There is potential in the distant future for a dock and nature trail on the island across from Tom John's Landing. Based on engineering and wetland impact concerns, the boat launch at Tom John's Landing may be abandoned in the near future, but the campsite and associated recreation facilities could remain.

3.3.3.19 Rattlesnake Lake

Description: Rattlesnake Lake is a large, beautiful sandhill lake west of Econfina Creek, south of Greenhead Road, and north of Highway 20. It is currently closed to use, but was formerly a site and very popular fishing and swimming lake. The lake is surrounded by off-site planted slash pine forest and a healthy shoreline population of endangered SBSJW.

Issues: Rattlesnake Lake was a popular recreation site, and people have asked for it to be reopened. There is potential for two or three group campsites, with or without boat ramps, at Rattlesnake Lake. SBSJW populations are heavily disturbed in places traditionally used to launch boats. There are concentric rings of roads around the lake from former use that has caused significant erosion problems. Erosion is also a concern for the former recreation areas. In addition, there needs to be protection of the steephead system to the east.

3.3.3.20 Whitewater Lake

Description: Whitewater Lake is west of Econfina Creek, west of Porter Pond road, and immediately southwest of Porter Pond. This small and secluded lake was formerly a popular campsite and fishing area, although it was not commonly used for swimming. The lake has a thriving population of SBSJW along the south shore and all around the lake. The east side of the lake is privately owned and has a modest house on it. Although partly private, the lake is quiet in character.

Issues: Because part of the lake is privately owned, NFWWMD cannot control access. There is potential for a primitive campsite and boat launch at Whitewater Lake or for a day use or non-motorized fishing area. There is some road damage along the north shore of the lake.

3.3.3.21 Hammock-Hamlin Lakes

Description: The Hammock-Hamlin Lakes chain is a connected series of large lakes to the west of Econfina Creek and Porter Lake, and just north of Greenhead Road and Rattlesnake Lake. These lakes have been used mostly for fishing and not for swimming or skiing because there is a popular opinion that the water is “dark.” Fluctuating water levels change these lakes and can make them connected or unconnected. Because part of Hamlin Lake is privately owned, NFWMD may not be able to control access when these lakes are connected at high water levels.

Issues: These lakes suffer from the usual roads and boat ramps near the shore, damaging populations of SBSJW. There is potential for two group campsites on Hammock Lake, with an improved boat launch on the southern shore. There is potential in the future for developing an adventure canoe trail (with portages) through these lakes. A group campsite or freshwater beach site on the north shore of Hammock Lake could take some pressure off Rattlesnake Lake, as the lakes have similar features. Because part of Hamlin Lake is privately owned, NFWMD may not be able to implement the necessary or desired restrictions on recreational activity.

3.3.3.22 Mabel Porter Road Lakes

Description: There are a number of small, sandhill karst lakes near and mostly south of the Mabel Porter Road and north of Highway 20 in the western part of ECWMA. These are beautiful and secluded little lakes.

Issues: These lakes are potential areas for primitive, walk-in day use and fishing. Lakeshore populations of SBSJW need to be protected. Fish population assessment and restocking efforts need to be undertaken, subject to FFWCC recommendations.

3.3.3.22 The Florida Trail

Description: More than 16 miles of the Florida Trail in ECWMA are being developed by representatives of the Florida Trail Association in cooperation with NFWMD. Sections from Highway 20 to Rattlesnake to Walsingham Bridge to beyond Devils Hole are completed. Other sections that follow old roads are gradually being completed. The trail is labeled, and clear signs inform users of trail rules. Horses and vehicles are prohibited on the Florida Trail.

Issues: The trail is being well developed by a partner organization. The trail is not yet getting much use, but this will likely change over time.

3.3.3.23 Horseback Riding Trail

Description: More than 26 miles of horseback trails have been planned for ECWMA, in cooperation with the Southern Trailriders Association. Parking areas are proposed for Hampshire Road, for the road just east of Hammock Lake, and perhaps for Greenhead Road. Three small, horse-watering ponds have been identified along the trail, which has several interconnected shorter loops (2.9, 4.45, 6.3, and 10.4 miles) to provide a variety of trip lengths.

Issues: In the past, horseback riders have been riding and swimming their animals in the sandhill lakes on ECWMA. Trailriders say that they would like to have a lake dedicated to their horses, but this may be counter to the water resource protection purposes for which the property was purchased. Controlled watering stations may need to be planned for the horses.

3.3.3.25 Dog Hunt Areas

Description: Seasonal dog hunting is managed by FFWCC on a large area of ECWMA to the west of Econfina Creek, north of Highway 20, east of Econfina Road, and north of Greenhead Road.

Issues: Dog hunting generally includes driving trucks to follow the dogs' progress and sight prey from roads. Some roads in this area will need to be kept open during dog-hunting season and then closed to vehicular traffic the rest of the year.

3.4 Sensitive Resource Analysis

ECWMA contains many sensitive resources that include flora and faunal species as well as community types (see). Some ecological communities have been intensely managed for purposes other than resource protection (e.g., timber production) over the years. The sensitive communities include:

Springs/Spring Runs

- The springs and their associated runs along Econfina Creek are some of the most pristine in Florida.
- Water is bottled directly and sold commercially from some of the springs along Econfina Creek.
- Econfina Creek springs are the primary discharge point for the Floridan aquifer.

Sandhill Upland Lakes (Karst Lakes)

- These lakes have unique lakeshore communities and are home to protected plant species such as SBSJW, panhandle meadowbeauty (*Rhexia salicifolia*), quillwort yellow-eyed grass (*Xyris isoetifolia*), karst pond xyris (*Xyris longisepala*), and threadleaf sundew (*Drosera filiformis*).

Sandhill

- There is one intact 40-acre sandhill site that is being protected.
- There are a number of degraded sandhill sites that are being or will be restored and managed.
- This sandhill community type is a key upland recharge area.
- The longleaf pine sandhill ecosystem has been named a critically endangered ecosystem of the United States, meaning it has suffered a 98 percent decline through destruction, conversion to other land uses, or significant degradation of ecological structure, function, or composition since European settlement. There are at least 126 federally listed, proposed, or candidate endangered or threatened animal and plant species associated with longleaf pine and wiregrass communities of the southeastern United States (Noss *et al.*, 1995).

Slope Forests

- Slope forests contain some of the highest plant diversity in Florida including protected species such as mountain laurel (*Kalmia latifolia*) and Florida flame azalea (*Rhododendron austrinum*), as well as other species native to the Appalachians.
- Slope forests are primarily located along Econfina Creek.

Econfina Creek

- Econfina Creek contributes approximately 60 to 80 percent of the water into Deer Point Lake Reservoir, which is the water supply for the burgeoning Panama City urban area.
- The banks of the creek contain many Appalachian-remnant species rare to Florida, such as mountain laurel.

Since ECWMA encompasses a diversity of natural communities, many federally and state-listed species are known to occur or have the potential to occur in the area. Actual species occurrences are noted. Tables 3.4-1 and 3.4-2 list potential floral and faunal species that may occur on ECWMA based on geographic range and known habitat associations. Surveys are needed to confirm or rule out the presence of these species.

Table 3.4.1. List of Federally and State-Protected Animal Species Potentially Occurring in ECWMA with Reported Occurrences

Scientific Name	Common Name	FWS	FWC	Associated ECWMA Community Types	Reported Occurrence
<i>Alligator mississippiensis</i>	American alligator	T(S/A)	SSC	Marshes – basin, Marshes – depression, Ponds/Lakes - sandhill upland, Ponds/Lakes – sinkhole, Ponds/Lakes – swamp, Streams/Rivers – blackwater, Streams/Rivers – seepage, Streams/Rivers - spring run, Swamps – basin, Swamps - dome	X
<i>Ambystoma cingulatum</i>	flatwoods salamander	T		Flatwoods – wet, Swamps – basin, Swamps - dome	
<i>Dendroica kirtlandii</i>	Kirtland's warbler	E	E	Forest – upland pine, Hammock - xeric	
<i>Drymarchon corais couperi</i>	eastern indigo snake	T	T	Forest - upland pine, Sandhills	X
<i>Egretta caerulea</i>	little blue heron		SSC	Marshes – basin, Marshes – depression, Ponds/Lakes - sandhill upland, Ponds/Lakes – sinkhole, Ponds/Lakes – swamp, Streams/Rivers – blackwater, Streams/Rivers – seepage, Streams/Rivers - spring run, Swamps – basin, Swamps - dome	
<i>Egretta thula</i>	snowy egret		SSC	Marshes – basin, Marshes – depression, Ponds/Lakes - sandhill upland, Ponds/Lakes – sinkhole, Ponds/Lakes – swamp, Streams/Rivers – blackwater, Streams/Rivers – seepage, Streams/Rivers - spring run, Swamps – basin, Swamps - dome	
<i>Egretta tricolor</i>	tricolored heron, Louisiana heron		SSC	Marshes – basin, Marshes – depression, Ponds/Lakes - sandhill upland, Ponds/Lakes – sinkhole, Ponds/Lakes – swamp, Streams/Rivers – blackwater, Streams/Rivers – seepage, Streams/Rivers - spring run, Swamps – basin, Swamps - dome	X
<i>Eudocimus albus</i>	white ibis		SSC	Marshes – basin, Marshes – depression, Ponds/Lakes - sandhill upland, Ponds/Lakes – sinkhole, Ponds/Lakes – swamp, Streams/Rivers – blackwater, Streams/Rivers – seepage, Streams/Rivers - spring run, Swamps – basin, Swamps - dome	
<i>Falco peregrinus tundrius</i>	peregrine falcon		E	Marshes – basin, Marshes – depression, Streams/Rivers – alluvial, Streams/Rivers – blackwater, Streams/Rivers – seepage, Streams/Rivers - spring run	
<i>Falco sparverius paulus</i>	southeastern American kestrel		T	Forest - upland pine, Sandhills	
<i>Gopherus polyphemus</i>	gopher tortoise		SSC	Sandhills	X
<i>Macrolemys temminckii</i>	alligator snapping turtle		SSC	Ponds/Lakes – swamp, Streams/Rivers – blackwater, Streams/Rivers – seepage, Streams/Rivers - spring run	X
<i>Mycteria Americana</i>	wood stork	E	E	Marshes – basin, Marshes – depression, Streams/Rivers – blackwater, Streams/Rivers – seepage, Streams/Rivers - spring run	
<i>Myotis grisescens</i>	gray bat	E	E	Cave -terrestrial	
<i>Pituophis melanoleucus mugitus</i>	Florida pine snake		SSC	Sandhills	X
<i>Pleurobema pyroforme</i>	oval pigtoe	E		Streams/Rivers	X
<i>Rana capito</i>	gopher frog		SSC	Forest - upland pine, Hammock – xeric, Marshes – basin, Marshes – depression, Ponds/Lakes - sandhill upland, Sandhills	X
<i>Sciurus niger shermani</i>	Sherman's fox squirrel		SSC	Forest - upland pine, Hammock – xeric, Sandhills	X
<i>Ursus americanus floridanus</i>	Florida black bear		T	Forest – bayhead, Forest – slope, Forest - seepage slope, Swamps - dome	

Table 3.4-2. List of Federally and State-Protected Plant Species Potentially Occurring in ECWMA with Reported Occurrences

Scientific Name	Common Name	FWS	FDA	Associated ECWMA Community Types	Reported Occurrence
<i>Andropogon arctatus</i>	pinewood bluestem		T	Seepage - bog	
<i>Aquilegia canadensis</i>	columbine		E	Forest - upland pine	
<i>Athyrium filix-femina</i>	southern lady fern; lowland lady fern		T	Forest – slope, Seepage - slope	X
<i>Aster spinulosus</i>	pinewoods aster		E	Flatwoods – wet, Swamps	
<i>Baptisia megacarpa</i>	Apalachicola wild-indigo		E	Forest - upland pine	
<i>Bigelovia nuttallii</i>	Nuttall's rayless goldenrod		E	Seepage – bog, Seepage - slope	
<i>Calamintha dentate</i>	toothed savory		T	Forest – slope, Sandhills	
<i>Carex baltzellii</i>	Baltzell's sedge		T	Forest – slope, Hammock - upland	
<i>Coelorachis tuberculosa</i>	Florida joint-tail		T	Marshes, Ponds/Lakes	
<i>Crataegus phaenopyrum</i>	Washington thorn; hedge thorn; red haw		E	Hammock - upland	
<i>Drosera filiformis</i>	dew-threads; thread-leaf sundew		E	Marshes, Ponds/Lakes	X
<i>Epidendrum conopseum</i>	green-fly orchid		C	Swamps	X
<i>Erythronium umbilicatum</i>	dimpled dogtooth-violet; trout lily; amberbell		E	Forest - slope	X
<i>Hexastylis arifolia</i>	heartleaf wild ginger		T	Forest - slope	
<i>Hypericum lissophloeus</i>	smooth-barked St. John's-wort; water-cedar		E	Ponds/Lakes – bank, Ponds/Lakes - sinkhole	X
<i>Illicium floridanum</i>	Florida anise; purple anise; Florida anise-tree; stink-bush; polecat-tree; stinking-laurel		T	Seepage - slope	X
<i>Isopyrum biternatum</i>	false rue-anemone		E	Forest - upland pine	
<i>Isotria verticillata</i>	whorled pogonia		E	Forest - slope	
<i>Juncus gymnocarpus</i>	Coville's rush		E	Swamps	
<i>Kalmia latifolia</i>	mountain laurel; ivy; calico bush; spoon wood		T	Forest - slope	X
<i>Lilium catesbaei</i>	Catesby lily; pine lily; leopard lily; southern red lily		T	Flatwoods – wet, Seepage - bog	
<i>Lycopodium cernuum</i>	nodding club-moss; staghorn clubmoss;		C	Flatwoods – wet, Marshes, Swamps	
<i>Magnolia ashei</i>	Ashe's magnolia		E	Forest – slope, Forest – bayhead	X
<i>Malaxis unifolia</i>	green adder's-mouth		E	Forest – slope, Seepage - bog	
<i>Malus angustifolia</i>	crabapple; flowering crabapple; southern crabapple		T	Forest - upland pine	X
<i>Marshallia ramose</i>	southern Barbara's-buttons		E	Flatwoods - wet	
<i>Matelea flavidula</i>	yellow flowered spiny-pod		E	Forest – slope, Forest - upland pine	
<i>Matelea gonocarpos</i>	angle-pod		T	Forest - slope	
<i>Osmunda cinnamomea</i>	cinnamon fern		C	Marshes, Swamps	
<i>Osmunda regalis</i>	royal fern; flowering-fern; snake-fern; king's fern; osmunde royale		C	Cave – aquatic, Marshes, Swamps	X
<i>Paronychia chartacea</i>	papery whitlow-wort	T	E	Ponds/Lakes - sinkhole	X
<i>Pinckneya bracteata</i>	fever tree; maiden's blushes; Georgia bark		T	Forest - seepage slope	
<i>Pinguicula planifolia</i>	swamp butterwort; flatleaf butterwort		T	Seepage – bog, Swamps	
<i>Pinguicula primuliflora</i>	primrose-flowered butterwort		E	Seepage – bog, Swamps	

Scientific Name	Common Name	FWS	FDA	Associated ECWMA Community Types	Reported Occurrence
<i>Platanthera blephariglottis</i>	white-fringed orchid; plume-of-Navarre; large white-fringed orchid		T	Flatwoods – wet, Marshes, Seepage - bog	
<i>Platanthera ciliaris</i>	yellow-fringed orchid; orange plume		T	Flatwoods – wet, Forest – slope, Seepage – bog, Swamps	
<i>Platanthera cristata</i>	crested fringed orchid; orange crest orchid; golden fringed orchid		T	Forest - seepage slope, Flatwoods – wet, Seepage – bog, Swamps	
<i>Platanthera integra</i>	orange rein orchid; yellow fringeless orchid; frog-arrow		E	Seepage - bog	
<i>Platanthera nivea</i>	snowy orchid; bog-torch; frog-spear; white rein orchid		T	Flatwoods – wet, Seepage - bog	
<i>Pogonia ophioglossoides</i>	rose pogonia; ettercap; crested ettercap; rose crested orchid		T	Flatwoods – wet, Seepage – bog, Swamps	
<i>Rhapidophyllum hystrix</i>	needle palm; blue-palmetto; vegetable porcupine		C	Forest - seepage slope, Forest - slope	
<i>Rhexia salicifolia</i>	Panhandle meadow beauty		T	Ponds/Lakes	X
<i>Rhododendron austrinum</i>	Florida flame azalea; orange azalea		E	Forest - slope	X
<i>Rhododendron canescens</i>	pink azalea; southern pinxterbloom; Piedmont azalea; bush honeysuckle; hoary azalea; wild azalea		C	Forest – slope, Seepage - bog	X
<i>Rhynchospora stenophylla</i>	narrow-leaved beakrush		T	Flatwoods – wet, Seepage - bog	
<i>Sarracenia psittacina</i>	parrot pitcher-plant		T	Flatwoods – wet, Seepage - bog	
<i>Sarracenia purpurea</i>	decumbent pitcher-plant; flytrap; Indian pitcher; sidesaddle-plant; Adam's pitcher; huntsman's-cup; devil's-boots		T	Flatwoods – wet, Seepage – bog, Swamps	
<i>Schisandra coccinea</i>	bay star-vine; wild-sarsaparilla; Schisandra		E	Forest - slope	
<i>Spiranthes tuberosa</i>	little pearl-twist; little ladies'-tresses		T	Flatwoods - scrubby	
<i>Stewartia malacodendron</i>	silky camellia		E	Forest – bayhead, Forest - slope	
<i>Verbesina chapmanii</i>	Chapman crownbeard; Chapman's crownbeard		T	Flatwoods – wet, Forest - seepage slope, Seepage - bog	
<i>Xyris isoetifolia</i>	quillwort yellow-eyed-grass		E	Ponds/Lakes, Seepage - bog	
<i>Xyris longispala</i>	karst pond xyris; karst yellow-eyed-grass		E	Ponds/Lakes	X

4.0 MANAGEMENT ZONES

Based on the review of recreational resources and issues at ECWMA, six management zones have been identified:

- Primitive
- Recreational
- Motorized rural
- Hunting
- Educational
- Resource protection

These six management zones (see Figure 5-4) are subdivided into more specific management zone divisions related to specific recreational experiences (Table 4.0-1).

4.1 Management Zones

4.1.1 Primitive Zone

This zone provides opportunities for users to experience “wildlands” and solitude. Natural processes and the landscape will be unaltered in the primitive zone, except for a few minimal developments. Low evidence of recreational impacts will be tolerated. Resources may be altered to preserve/maintain resources and to direct users to avoid resource impacts, but they should be subtle and harmonize with the natural environment.

Users will be immersed in the natural landscape with a moderate sense of solitude. Natural sights and sound would be most of what one sees or hears in this zone. The probability of encountering others will be low. Users will need to have a high degree of self-reliance, and necessary outdoor skills.

4.1.1.1 Primitive Creek/Stream

Time of Use: Year round.

Activities: Canoeing, nature observation, swimming.

Description: Upper Econfina Creek from Scotts Road bridge to Williford Spring.

Recommendations: This is a long section of Econfina Creek which provides a unique recreational opportunity and which has been overlooked in recreational development to date. This portion of the creek should be set aside for adventure-seeking, skilled canoeists/paddlers. Facilities should be kept at the current levels except for building of a small parking lot at Scotts Road bridge and development of several primitive stopping and camping sites. Currently there is no area for paddlers to park their cars while paddling the creek. Parking should be away from the creek so that boaters do not create trails to the creek for launching, and off the road to reduce vandalism. A sign should instruct boaters to launch their boats from ramps near the bridge. In addition, a registration box should be built and boaters asked to fill out a registration card that includes name, city and state, and number of people and boats in their group. This will allow NFWFMD staff to assess level of use and geographic spread of visitors for future planning purposes. Erosion at the Ring Road bluff should be immediately addressed and the site either closed (fenced) or provisioned with a dock and stairs as a canoe stopping

Table 4.0-1. ECWMA Management Zone Divisions and Associated Descriptors

Management Zone Division	Primitive					Recreational Zone						Hunting Zone			Motorized Rural Zone	Educa-tional Zone	Resource Protection Zone
	Creek/ Stream	Lake	Trail	Horse Trail	Camping/ Picnicking	Creek/ Stream	Lake	Trail	Group Camping	Spring	Off-Road Cycling	Dog Hunt	Still Hunt	Mobility Impaired			
Descriptor																	
Challenge and Adventure of Experience	VH	M	M	M	M	L	L	L	L	L	M	M	M	M	VL	VL	N/A
Dependence on Roads, or other Facilities	L	L	L	L	L	M	H	M	H	H	L	H	H	VH	VH	H	N/A
User Encounter Expectations	VL	L	VL	VL	L	H	H	M	H	VH	L	M	VL	VL	M	H	N/A
Road Corridor Standards	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Graded dirt	N/A	N/A
Trail Corridor Standards	N/A	N/A	Unsurf-aced 2' wide	Unsurf-aced 4-6' wide	N/A	N/A	N/A	Unsurf-aced, 4-6' wide	N/A	N/A	Unsurf-aced, 2-3' wide	N/A	N/A	N/A	N/A	N/A	N/A
Management Action for Resource Protection and Safety	L	M	M	M	H	H	H	M	H	H	M	M	M	M	H	H	H
Tolerance for Resource Degradation	L	L	L	L	L	M	M	L	M	M	L	M	L	M	M	L	VL
Opportunity for Solitude	VH	H	VH	H	M	M	L	M	M	L	H	M	H	M	M	M	N/A
Noise Level	VL	L	VL	L	L	M	M	L	M	M	L	M	VL	VL	M	L	N/A
Need for Onsite Education/ Interpretation	L	L	M	M	M	M	H	VH	H	VH	M	L	L	L	Low	VH	N/A

VL = Very Low, L = Low, M = Moderate, H = High, VH = Very High.

point. There is an opportunity to develop a portage trail from Econfina Creek to Trapp Pond for primitive camping. This would provide an additional camping spot along the Econfina Creek canoe run and a unique experience for visitors to experience both blackwater creek and upland sandhill karst lake habitats. The primitive camping site at Trapp Pond should have no outside vehicular access, and the side trail and campsite should be developed so as not to conflict with the Florida Trail facilities in the area. The Anise site should be similarly developed as a primitive canoe stop and campsite, with appropriate dock or stairs as needed to prevent erosion. Any sites developed as primitive picnicking or camping sites along the canoe run will fall under the “Primitive Camping and Picnicking” management zone. The remainder of the creek, from Ring Road to Williford Spring should be kept in a natural condition.

4.1.1.2 Primitive Lake

Time of Use: Year round, day-use only.

Activities: Nature observation, picnicking, bank fishing.

Description: Small- and medium-sized lakes located off of Mabel Porter Road.

Recommendations: These lakes will be set aside for low-impact day use of individuals and small groups. Small parking facilities for two or three cars should be established at the roadsides and primitive trails provided for entry to the lakes. Signs designating the types of activities allowed at these sites should be posted at the parking area. Users will be required to walk to the lakes from designated parking areas at the nearest open road. A loop trail might be designed that visits several primitive lakes. Any trails that are developed to primitive lakes will fall under the “Primitive Trail” management zone.

4.1.1.3 Primitive Trail

Time of Use: Year round.

Activities: Hiking, nature observation, primitive camping.

Description: This area includes the Florida Trail that is currently maintained by the Florida Trail Association (FTA). It runs approximately 16 miles from the southwestern edge of ECWMA through the uplands, past Rattlesnake Lake, along Econfina Creek, and out the northeastern corner of the area (see Figure 5-4).

Recommendations: The current status of the trail is satisfactory. Trailhead registration boxes should be installed in order to track trail use and geographic spread of visitors for future planning purposes. Efforts should be made to engage the FTA in monitoring impacts on the trail using the indicators and standards set below. Opportunities for camping and picnicking along the trail fall under the “Primitive Camping and Picnicking” management zone.

There are opportunities for additional primitive trails to be developed on ECWMA. For example, trails might be developed to link several primitive lakes in the Mabel Porter Road area, and a trail has been proposed to link the Sparkleberry Pond and Blue Springs recreational group camping areas.

4.1.1.4 Primitive Horseback Trail

Time of Use: Year round, with appropriate precautions during hunting season.

Activities: Horseback riding, nature observation.

Description: This area includes a horse trail being developed by the Southern Trailriders Association. It starts at the western end of Greenhead Road and runs through 26 miles of interconnected loop trails to end at Hampshire Road east of Porter Lake. Parts of the trail use unpaved county roads (see Figure 5-4).

Recommendations: The current arrangement with the STA is acceptable as long as the trail location does not impact natural resources. Interpretive signs should be established near the beginning and end of trail heads outlining the rules of the trail which should minimally include: (1) Stay on designated trails, (2) No swimming of horses in lakes because of water quality concerns, and (3) Take appropriate safety precautions during hunting season. NFWFMD should work with the STA to develop other rules or standards that would be posted at trailheads and parking lots. Two or three designated parking areas are being developed along roads. Two or three designated horse-watering lakes should be established along the trail, with exclusion fences built so horses can get water but not go swimming. Appropriate semi-hardened stabilization (gravel?) should be provided at horse-watering sites to prevent erosion. At each of the watering sites, signs should be placed asking users not to swim the horses and to keep them from entering the water because of water quality concerns. The remainder of the horse trail should be kept away from water resources. Liability concerns for parts of the trail that fall on county roads may need to be addressed.

4.1.1.5 Primitive Camping and Picnicking

Time of Use: Year round.

Activities: Primitive camping and picnicking, low-impact car camping and picnicking.

Description: These areas include Walsingham, Shell, Devil's Hole, Long Leaf, Bluff or Grissett Pond, Anise, Trapp Pond, and sites along the Florida Trail.

Recommendations: Primitive Camping and Picnicking sites that already are developed should remain the same with a few modifications. All sites should have trash receptacles, designated fire rings, designated areas for tents, and picnic tables. All areas should have designated areas fenced to contain parking (if provided) and camping away from water resources. Signs need be posted at primitive sites, including messages such as:

1. You must hold a yearly Econfina Creek resource permit to use this site.
2. To protect our forests, only dead and down wood should be used for fires.
3. Please be respectful of the natural surroundings.
4. To prevent water pollution, please wash dishes and bury human waste at least 100 feet from water.
5. To prevent fire and damage to trees, suspend lanterns on trees at least 4 feet from trunks, limbs, and branches
6. Please leave this area cleaner than you found it.

In the future, NFWFMD should consider placing sealed hand water pumps (pending county health department approval) at least 100 feet from water bodies to encourage better sanitation. If use of these sites increases, portable toilets could be placed at the sites accessible by car (or at a central spot between two or more sites), but no portable toilets should be placed at sites accessible only by foot or canoe trail.

The Devil's Hole site should either be eliminated or have the designated recreation area moved away from the solution hole. Devil's Hole is the only solution hole found on ECWMA. There should be signs instructing users not make rope swings because it damages the trees and is a safety hazard. At Bluff, split-rail fencing should be installed to keep people away from eroded areas, an alternative trail and steps should be built to the creek, and the designated recreation site should be moved away from the creek. It would be justifiable to close the Bluff site and establish a new primitive site that can better withstand recreational impacts (e.g., Grissett Pond). Other future sites could also include primitive campsites between Hamlin and Still Ponds if demand increases and the resource can withstand the use. At Walsingham Park the bank near the canoe launch needs to be stabilized, but activity levels can remain the same. At all sites where there is access to the creek or water, stairs or a ramp should be built to minimize erosion.

4.1.2 Recreational Zones

In recreational zones, users would have a fairly structured "rural" experience. Basic facilities would be provided. There would be few opportunities for solitude, but the social environment would remain relatively uncrowded. Natural processes and landscapes would remain unaltered, except within or directly adjacent to a developed site. Resources may be altered or manipulated when necessary to restore damaged area or to redirect users to avoid resource impacts. Alterations would be designed to blend in with the natural landscape.

In this zone the user would experience the area in or near their cars or near some basic facilities. Users would feel part of their landscape, while having the security of knowing other people and facilities were near by. Sights and sounds of some vehicles and people would be expected. There would be few opportunities for solitude at peak times or during peak season. Users would need a low degree of self-reliance or outdoor skills.

4.1.2.1 Recreational Creek/Stream

Time of Use: Year round.

Activities: canoeing, paddling, tubing, swimming.

Description: Williford Springs south to Deer Point Reservoir. Generally, trips are taken from the bridge at Highway 20 to County Road 388 or up and down the creek in the area around Highway 20 and the springs. There are two canoe liveries that rent boats at locations along the creek but others can put in at the bridges. This portion of the creek is for the less skilled paddlers and those who are paddling the creek in a social capacity.

Recommendations: As this is a zone of social activity, NFWMD should plan to develop several creek-side stopping spots for recreational picnicking and swimming. Suggested stopping points include west of the Highway 20 auxiliary parking lot, McCormick Springs, and Hallmon Tract. These sites would be for day use of canoe parties only (e.g., outside vehicular access for maintenance purposes only) and would include minimal facilities of picnic tables, trashcans, and small shelters.

NFWMD needs to improve the functionality of the current auxiliary parking lot at the Highway 20 bridge. There currently is no direct access from the parking lot to the creek. A loop road should be extended toward the creek but should not run any closer than 100

feet with a footpath extending the rest of the way. The reason for not extending the road to the river is to keep cars from parking near the creek and to prevent erosion and water quality degradation. The loop road should be a one way road for canoe drop-off only – one that is designed to restrict cars from parking along the side. At the point where the footpath reaches the creek, a dock (with skid-proof stairs or ramp, if necessary) should be established for boats to be loaded and unloaded. A small area should also be established for some picnic tables and associated waste receptacles. This will meet some of the legitimate demand of users around the bridge. Portable toilets should be installed near the parking lot. Interpretive signs should be placed detailing the type of behavior and activities that are allowed at the site and should include signs that tell users to stay off the banks in order to reduce erosion and protect water quality. NFWFMD should consider developing a similar area near the 388 bridge, either at the north end of Hobbs Pasture or by attempting future acquisition of land closer to the bridge.

The Department of Transportation and Bay County must address the safety hazards associated with people loitering and swimming in and around Highway 20 and 388 bridges. The Department of Transportation must set road barricades along both sides of the road along with no parking signs to deter and restrict parking alongside of the road and near the bridges. The parking is causing significant resource degradation and a safety hazard for both traffic and pedestrians. The Bay County Sheriff must begin enforcing parking regulations and, more importantly, open container and public drunkenness laws. The primary justifications for increased enforcement are safety of pedestrians and interruption of commerce of paddlers loading and unloading boats. In interviews with outfitters and surveys done of canoeists, the primary concern/complaint was the number of intoxicated individuals loitering in the area. It is not conducive to a family atmosphere. In addition, the Bay County Sheriff must start encouraging people to use the designated recreational areas such as Pitts Springs or Porter Lake. The fact that over 75 percent of ECWMA users are from Bay County should be a justification for NFWFMD to request Bay County to get more deeply involved in law enforcement in the area, above and beyond the patrol services provided under contract to NFWFMD.

4.1.2.2 Recreational Lake

Time of Use: Year round.

Activities: boating, fishing, picnicking, swimming (camping and motorized water recreation such as water skiing and jet skiing, Porter Lake only).

Description: Areas located on Porter Lake (White Oak and Tom Johns Landings), Hammock-Hamlin Lakes, and Whitewater Lake.

Recommendations: Each of these sites should be equipped with picnic tables, portable toilets, trash containers, grills, and fire rings. There needs to be designated (fenced) parking areas that restrict users' ability to drive around lakes and established recreational areas that are clearly marked or fenced. All areas need to have interpretive signs giving reasons for the types of uses allowed and rules of the sites, similar to suggestions previously listed for other sites.

Recreation at Porter Lake should be maximized since it is an area that already receives heavy use and which NFWFMD does not completely control due to private lots on the

lake. Porter Lake should be the only ECWMA site where high intensity motorized water recreation such as water skiing and jet skiing are allowed. The White Oak site currently has a hardened boat launch, grills, pavilions, picnic tables, portable toilets, and a designated swimming area. Managers might consider expanding the camping area up the slope slightly to take advantage of shade trees. This would be an ideal site for interpretation of endangered or rare species likely to be seen by visitors, such as fox squirrels, SBSJW, bald eagle, etc. The Tom Johns site has a picnic table, pavilion, fire ring, and portable toilet. The eroded boat ramp near the road is being abandoned due to wetlands impact concerns. This site will continue to be promoted as a group camp site and launch area for non-motorized or portable boats or canoes. Fencing should be built to keep vehicles well away from the water at this site to prevent water quality impacts.

One or two sites should be developed at the Hammock-Hamlin Lakes. The Hammock-Hamlin Lakes should be designated as day use only and for fishing boats only, with motorized water recreation (water skiing, jet skiing) prohibited. Signs can direct motorized recreationists to Porter Lake. Each site will include a hardened boat launch, picnic table, pavilion, fire ring, and portable toilet. A designated access road and parking area (fenced to the boat launch) should be established at each site. All access roads to other impacted beaches and around the lake should be eliminated. Parking and other facilities (except boat launches) should all be placed landward of the lakeside vegetation zone. Sites should be located in areas that have already been impacted and have beaches and boat launches already clear of SBSJW. No additional areas of SBSJW shall be cleared, and, in fact, fencing at the areas should protect existing populations of the plant from further degradation and should provide zones for natural recovery of shoreline vegetation to occur. Interpretive signs should explain the importance of and designate protection areas for SBSJW.

The Hammock-Hamlin Lakes chain would be an excellent area for a designated primitive canoe trail in the future. The trail would require short portages of gear and canoes in low water, and might be continuous during times of high water. Trail routes might be Hammock-Hamlin-Wages-Howard Swamp or branching to the northeast through Still Pond, Blackwater Slough, Roundabout and Swindle Swamps, and into the north end of Porter Lake. A loop route could be provided from Howard through Swindle Lake, Cuerett Camp Lake, Jack Pond, Silver Lake, and Still Pond back to Hamlin. The longest portage on any of these routes is about ½ mile, which is not far by canoe portage standards. Easements would have to be negotiated where portage trails might cross private lands.

Whitewater Lake should be outfitted as a day use only dock-fishing area (with no motorized boats allowed) geared toward disabled and senior citizens. A single access road and fenced parking area should be provided landward of the shoreline vegetation zone, with a hardened path leading down to the lake. A small dock (similar to the dock that exists on Gainer Pond) should be provided for anglers. The site should be outfitted with picnic table, pavilion, fire ring, and portable toilet. This site will be designed to appeal to senior citizens and disabled citizens, who make up a significant portion (up to 20 percent) of the population of Washington County and who were a traditional

constituency of ECWMA before it was purchased by NFWFMD. This also addresses an identified need for dock (pier) fishing opportunities in the panhandle region and will not provide noise disruption to the current private residence on the lake.

People who fish have also expressed a desire to fish at night. This should be permitted at the boat launch sites at Porter Lake and at the Hammock-Hamlin Lakes but signs should be express that overnight camping is not permitted except at Tom Johns on Porter Lake.

4.1.2.3 Recreational Trail

Time of Use: Year round.

Activities: Hiking, nature observation.

Description: A 1- to 3-mile nature trail loop at Pitts Springs. Over time it will include interpretive signage that is currently being developed.

Recommendations: Designate a trail that leaves from and returns to the Pitts Springs parking lot. It should extend to some of the spring runs north of the main Pitts Springs through the floodplain forest. It might also extend to an additional auxiliary parking area proposed for Strickland Road. Undesignated “social trails” (side trails) need to be closed off by blocking them with split-rail fencing or fallen tree limbs. Wet areas should be avoided or have boardwalks built over them. Fencing should be built to discourage users from walking along the banks and crossing the small streams. Interpretive signs explaining why it is important for visitors to stay on designated trails and not trample vegetation or erode creek banks should accompany the trail.

4.1.2.4 Recreational Camping/Picnicking (Permitted)

Time of Use: Weekends and holidays only, permitted only, year round.

Activities: Group camping, picnicking, bank fishing, nature observation (trails), swimming (designated sites) low impact boating

Description: Sparkleberry Pond, Blue Springs, Williford Spring (day use only), and Rattlesnake Lake. A group permit is required to use these sites on a per use basis.

Recommendations: Each site should have a picnic table, portable toilet, fire ring, grill, pavilion, and sealed hand pump well to encourage washing of dishes at least 100 feet away from water. Each site should also have designated camping or picnicking and parking areas (fenced). All facilities (except boat launches) should be placed landward of shoreline vegetation protection zones.

At Sparkleberry Pond, split-rail fencing has been constructed to keep automobiles off the beach and out of the pond. Interpretive signs are needed to inform users about protecting the excellent SBSJW population at this site. A designated beach area should be established so that SBSJW can recover in the other areas. Since there will be no boat ramp, it only will be accessible to non-motorized (portable) boats or canoes. Any trails that are provided should be located landward of the SBSJW. There is potential for a trail to link Sparkleberry Pond and Blue Springs group camping areas; this facility would fall under the “Primitive Trail” management zone.

At Rattlesnake Lake, there should be two designated group camping sites established away from the shore of the lake and the SBSJW. Rattlesnake Lake is an example of

high-quality sandhill karst lake habitat, with an excellent population of SBSJW. As such, the lake should be protected from all further degradation and should be restored to a semi-pristine state. The steephead system to the east of Rattlesnake Lake is a unique resource that should be fully protected from recreational impacts (i.e., no roads, facilities), and only visited by primitive trail users. At each site on Rattlesnake Lake there should be a hardened boat launch and a designated beach area established, served by a single designated access road. Parking and vehicular access to the boat launch should be fenced to prevent vehicles from straying from the designated area. The remainder of the shore of Rattlesnake Lake should be a protection zone for SBSJW. The entirety of Rattlesnake Lake should be designated a *no-wake zone*, with signs to make users of the lake aware of this regulation. Interpretive signs informing users about protecting SBSJW should be placed at each site. Any trails that are provided should be located landward of the SBSJW. Rattlesnake Lake should not be open for group camping until all facilities are fully developed. NFWFMD should consider opening Rattlesnake Lake to day use fishing on a limited number of weekdays, but should consider restricting use for a period of time in order to promote recovery of degraded shoreline habitats and for revegetation of eroded access roads.

The recreational opportunity at Blue Springs should remain the same without any major changes. Vegetation barriers (trees or bushes) should be planted to block the view of adjacent landowners to the site. In addition fire rings need to be placed to discourage creation of undesignated fire pits. Feral cats should be removed and euthanized on a regular basis, as they are a public health concern. There is potential for a primitive trail to connect the Blue Springs and Sparkleberry Pond recreational group camping areas.

At Williford Spring, there is a conflict between the permit holders who are using the site and the canoeists that paddle up the spring run to use the spring. The mixing of the two user groups degrades the experience of solitude and privacy of the permit holders. There are other springs along the creek, including Pitts Spring, accessible to canoeists. In addition, the canoeists are contributing to the erosion on the bank around the spring where they land their canoes. Therefore, it is recommended that canoeists should be restricted from using the Williford Spring. The closing of Williford Spring to canoeists may be a very unpopular action, particularly with canoe outfitters and their customers, but the negative impacts of this action could be outweighed by providing improved canoe launch and take-out facilities elsewhere along the creek. It is, therefore, strongly suggested that the improved canoe facilities be developed before Williford is closed. If this change is implemented in 2000, increased enforcement of the new restrictions will be necessary during the early part of the canoe season. When Williford Spring is closed, the spring run entrance should be blocked and signs posted indicating where visitors may apply for a permit to use the area. If feasible, application brochures or postcards could be placed at this point in a small waterproof box. It is also recommended that if Williford Spring is closed that notices be placed in advance of the closing at the spring run and creek.

The canoe outfitter representative on the Management Advisory Committee disagrees strongly with the recommendation to close Williford to canoeists. She believes that her

patrons enjoy utilizing the spring and closing it to them will lessen their experience, push them to using Pitts Springs and other non-NWFWMD springs along the Creek, and may impact her business. Other alternatives include:

- a. Requesting that canoeists voluntarily not use Williford when permit holders are seen utilizing the site through signage as they enter from the Creek,
- b. Building a structure where canoeists could dock their canoes away from the spring and walk either on the bank or along the spring run to the spring, and
- c. A combination of (a) and (b).

These alternatives may appease the canoeists but conflicts between permitted users still may arise and the alternatives will require increased management. In addition, they are likely to disperse the erosion and other ecological problems. One of the goals of the Permitted Recreational Camping/Picnicking experience is to allow groups to be isolated from other users and enjoy an increased level of solitude.

Regardless of the management actions taken at Williford, interpretive signs need to be posted asking users to stay off the banks and use the stairs because of the erosion problems. Fencing should be installed to keep permitted users away from the unhardened areas of the spring bank. The portable toilet and parking area should be moved back from the spring in order to take advantage of shade and prevent erosion/enhance water quality.

Some users and managers have mentioned that permits for the recreational group areas tend to be issued to people in the same groups. As demand for the permitted group camping or picnicking experience increases (e.g., when Rattlesnake Lake is reopened and access to Williford Spring is limited), NWFWMD should consider revamping the permit issuing system to more equitably distribute permits to a variety of users rather than to members of the same groups. Computer records might be used to limit repeated use of individuals during a given season or year. Requiring visitors to register all members of their group at the time of the camping or picnicking session would allow NWFWMD to limit repetitive users and offer permitted group recreation to a wider variety of users. Another alternative would be to implement a next available, no substitution registration system. In this system, sites would rotate being open to give time for them to recover. A person or group would be on list to get any site available during a weekend and if they did not receive a preferred site, they could reapply another time to get the preferred site. This process would more equitably distribute use of the sites and keep groups from monopolizing preferred sites.

4.1.2.5 Recreational Spring

Time of Use: Day use only; weekends and holidays November 1 through March 31; all days April 1 through October 31.

Activities: Picnicking, swimming, hiking, nature observation.

Description: Pitts Springs is the only site with this designation. Pitts Springs is located directly north of Highway 20 near the bridge. It has a parking lot for 20-25 automobiles, portable toilets, pavilions, picnic tables, grills, benches, trash containers, a kiosk, and board walks. Two-thirds of the spring bank is hardened, with the remaining

third fenced off by chain link fence. In addition, there are boulders blocking canoes from the very short spring run and a dock at the entrance of the spring run to the creek.

Recommendations: Pitts Springs is the most heavily used site within ECWMA and requires the greatest amount of management attention now and in the future. The spring bank is in the process of being completely hardened. All areas of erosion in and around Pitts Springs should be immediately restored or mitigated, either by effective fencing, placement of turf or native vegetation, or surface hardening.

The area of erosion along the south side of the spring should be dealt with in several ways. Guard rails/fencing should be considered along the boardwalk leading to the creek to restrict people from walking on the bank of the spring run. Fences should run along the banks of the spring run with signs asking people to stay off the banks. The rocks at the spring mouth should be moved out to the edge of the creek so that people are not able to park canoes in the mouth of the spring run. Since the dock is primarily being used as a swimming platform, an additional or enlarged (floating?) dock more suitable for canoes should be provided. The eroded area needs to be revegetated with hardy turfgrass.

People should continue to be excluded from the point between Pitts Springs and Econfina Creek. The chain link fence would be better replaced with split-rail fencing with signs asking people to stay out of the area to prevent erosion and protect water quality. The fence needs to be placed as close to the bank or newly hardened area as possible.

The “social” (side) trails leading along the banks of the creek should be blocked either with vegetation or fencing. Signs should be placed stating that they have been closed to protect the banks and vegetation from erosion and to protect water quality. A trail or boardwalk should be provided to some site on the creek north of the Pitts Springs area for people who want to tube down to the Pitts Spring landing. The tubing run needs to be accessible by foot from the Pitts Spring park so that visitors can walk and tube repetitively from the park, a favorite activity for youngsters with family groups.

Since Pitts Springs has the highest level of use, it requires the highest amount of interpretive signage. There are signs indicating the rules for use of the spring at the entrance of the area. There should also be signs with symbols indicating what is not allowed (e.g., international symbols with a slash) around the site. Where signs ask users to stay off banks or stay on trails, there should also be an accompanying message about why or a positive message such as “Help protect the spring, stay off the banks” or “Help protect your drinking water quality – prevent erosion and pollution.”

A law enforcement presence should be continued during high- and low-use periods. In addition, law enforcement should be encouraged to issue citations when regulations are broken. Without strict enforcement of the current regulations, there will be no behavioral change. As with most situations in society, the adverse behavior and actions of the minority are having an impact on the majority. Most users of Pitts Springs are following the rules and regulations. It is the minority in which behavior and actions need to change. In the distant future, NFWFMD may want to consider having a full-time attendant at Pitts Springs.

4.1.2.6 Off-Road Cycling

Time of Use: Year round.

Activities: Off-road cycling, nature observation.

Description: This area is being developed and is planned to be on the east side of the creek. It is a separate trail system. Very little development has occurred to date.

Recommendations: The trails should be established in upland areas away from sensitive resources. The trails should be well marked and a designated parking area should be established with interpretive signs outlining rules and regulations.

4.1.3 Motorized Rural Zone (Roads)

The zone includes the maintained, unpaved, two-wheel drive roads that are used to traverse ECWMA and access recreational areas. The motorized rural zone provides a driving experience along unpaved roads accessible by normal automobiles, giving users a sense of being in the country. The probability of encountering visitors is moderate to low. A moderate level of management in this zone is necessary for resource protection and safety (signs, barriers).

Time of Use: Year round.

Activities: Driving, sightseeing, nature observation.

Description: This would include all the county maintained roads, such as Walsingham Bridge Road, Mabel Porter Road, Econfina Road, proposed interconnecting roads from Greenhead to Duma Jack, etc.

Recommendations: Roads should only be open if they are needed either to reach a recreational area or for other necessary access. All other roads should be closed, or closed seasonally when not in use (e.g., in hunting areas). Some stakeholders have expressed an interest in having access to all areas of ECWMA. This is not good for natural resources and water quality protection and promotes uncontrolled use by motor vehicles over other kinds of recreation. It is not NFWFMD's mission to allow access all areas. In the future, there is potential for developing a designated scenic loop road with a self-guided brochure or roadside signs.

4.1.4 Hunting Zone

This zone would provide similar experiences outlined in the primitive zone but would set aside for hunting during the designated time periods. Users would have the sense of being immersed in a primitive area. The probability of encountering other people would be low. Few recreational impacts would be tolerated. Some of these areas would be accessible by automobile during hunting season but would be closed to vehicular traffic during other times of the year. Some of the areas would be accessible only by gate code (e.g., limited mobility hunting area). During non-hunting periods these areas would be managed as resource protection zones for the express purpose of protecting natural resources and water quality, the core of ECWMA's mission.

4.1.4.1 Dog Hunting

Time of Use: Seasonal (See Figure 5-4).

Activities: Hunting with dogs, still or stalk hunting.

Description: This zone includes areas north of Highway 20, east of Econfina Road, north of Greenhead Road, south of Duma Jack Road, west of Econfina Creek, and west of Strickland Road (Bay County). This area is seasonally open for dog hunting. Still or stalk hunting also could take place in this area, as it does not conflict with dog hunting.

Recommendations: No changes are recommended to the Dog Hunting area.

4.1.4.2 Still Hunting

Time of Use: Seasonal (See Figure 5-4).

Activities: Still hunting (general), still hunting (quota).

Description: This zone includes areas (1) north of Duma Jack Road, (2) south of Greenhead and west of Econfina Road and north of Highway 20, (3) west of Enfinger Road and south of Highway 20, and (4) south of Scotts Road and east of Econfina Creek.

Recommendations: No changes are recommended to the still hunting area. It is suggested that no dog-assisted hunting (except raccoon) be allowed in the still hunting zones as it conflicts with the basic nature of still hunting.

4.1.4.3 Mobility-Impaired Hunting

Time of Use: Seasonal (See Figure 5-4).

Activities: Mobility-impaired hunting.

Description: This zone includes areas south of Highway 20, east of Enfinger Road, and west of Econfina Creek, and areas north and south of Highway 388 between Hobbs Pasture Road and Highway 2301 on both sides of Econfina Creek. This area allows seasonal access for disabled or limited mobility hunters and their assistants.

Recommendations: No changes are recommended to the mobility impaired hunting areas. NFWFMD might consider improving the area in the future, but it should substantially remain as an undeveloped resource protection area for the near future. Mobility impaired hunters are a small recreational audience. At present, their impacts on these areas are minimal, thus affording a high degree of resource protection while providing the benefits of solitude and unlimited access during hunting season. Decisions about future improvements should be based on the size of the recreational audience and impacts to the natural resources of the areas.

4.1.5 Educational Zone

This zone would provide users with structured opportunities to enjoy ECWMA and learn about NFWFMD's mission, activities, and about important natural resource issues. Users would feel as though they were in a pocket of civilization surrounded by nature. This zone would focus on natural resource and heritage education/interpretation. Limited physical exertion would be needed and facilities and structures would make accessibility easy. Natural processes and the landscape would be altered to accommodate visitors and support ECMWA operations. The visitor experience would be highly social with frequent interaction among visitors and NFWFMD personnel.

Time of Use: Year round.

Activities: Environmental and heritage education/interpretation, hiking, nature study.

Description: Potential educational areas include Gainer Pond and the Gainer Family Homestead. Gainer Pond (or an alternative site) could house a small environmental education center for school groups that would operate by advance reservation, or could eventually operate daily during the school year with a full-fledged educational program, depending on how developed NFWWMD (or contracted concession) wants to make the site. Gainer Family Homestead could be a heritage education site that would be open to the public. A cultural/archeological resource survey of ECWMA will be undertaken in Spring 2000, which may help to determine other valuable site for heritage interpretation. The hillside restoration area behind the NFWWMD field office is another potential future educational site.

Recommendations: First and foremost, educational/interpretive messages should be infused into interpretive and directional signage throughout ECWMA. If visitors are provided with compelling reasons for rules and regulations of the areas, then they will be more likely to comply.

The Gainer Family Homesite provides a unique opportunity for local heritage education site for the public. It is recommended that NFWWMD partner with an organization that specializes in providing these services. A relationship should be fostered where NFWWMD provides some support but is not required to maintain or run the facility, as it does not directly correspond with NFWWMD's mission or ECWMA's significance.

Before developing an environmental education center, NFWWMD should assess the Bay and Washington County School Districts to see if there is a need for an environmental education center and to find out if schools would take advantage of such a center. If a need is demonstrated, the environmental education center should focus on water resource issues, matching the mission of NFWWMD. In order for an environmental education center to have long-term meaning and purpose, the messages should tie into NFWWMD's mission. Such a center could certainly be combined with a heritage education center at the Gainer Family Homesite, or be constructed at a different site.

4.1.6 Resource Protection Zone

This zone applies to areas with little evidence of human disturbance, restoration areas, and sensitive areas that require protection. This zone is for only natural processes to affect the area's condition. Human actions that could affect resources would be avoided to the maximum extent. No manipulation to resources would be permitted except to restore and preserve/maintain resources.

Time of Use: Limited (closed year round or closed seasonally).

Activities: Project/research work, inventory, monitoring, resource management/restoration, and nature observation. (Note that hunting, hiking, primitive camping, and other activities take place in zones that cross, overlap, or are adjacent to Resource Protection Zones.)

Description: These areas would be set aside for the sole purpose resource protection and ecosystem restoration. They would include all areas that are not in some other recreational zone, plus the hunting zones during non-hunting seasons.

Recommendations: Access to these areas would be limited to foot travel (cross county with no trails) and limited vehicular access for research purposes. All roads in this area should be closed unless they need to be opened for hunting season or for some other sanctioned NFWMD reason.

4.2 Design Standards

Currently there are no consistent design standards for ECWMA. Design standards for ECWMA are needed to allow NFWMD to create and provide a consistent type and level of recreational opportunities. When implemented a consistent set of design standards will create for the user an overall level of expected recreational use and behavior, which will assist NFWMD in management of ECWMA. For example, if a spring site has the feeling of a city swimming pool, users would act accordingly, that is, with no concern for the natural resource. Consistent design standards can assist NFWMD in reducing some of the problems that exist at some of the sites.

Four types of design standards should be established for management of natural and recreational resources on ECWMA:

- Site Element Design Standards (e.g., facilities, barriers, markings, signs)
- Architectural Design Standards (e.g., consistent building styles)
- Graphic Design Standards (e.g., consistent logos and signage)
- Best Management Practices (BMPs) (e.g., practices for erosion prevention)

Site Element Design Standards are specific recommendations for which elements (e.g., facilities, barriers, markings, signs) should be included at recreational sites in the different management zones (Table 4.2-1). These site elements should reflect agreed upon Architectural, Graphic, and Best Management Standards developed specifically for ECWMA.

Architectural Design Standards specify the style and “look” of architectural elements (e.g., roofing, siding, coatings/paints, pavilions) to give sites a common architectural identity and to help visitors identify different types of sites and levels of services. Architectural Design Standards for ECWMA will evolve over time, based on the style of existing structures, the availability of specific building materials, and the skills and inclinations of facilities managers. In general, architectural elements should follow a consistent style and match or harmonize with existing structures on ECWMA.

Graphic Design Standards specify the style and look of signage and paper publications for ECWMA. Graphic Design Standards will evolve over time, based on the style of

existing signs and publications, and through collaboration of NFWFMD staff and graphic designers at firms producing publications or signs. For example, a consistent and recognizable logo should be a part of all ECWMA signage and publications. Signs that have already been produced for ECWMA have a unique style and character that should be duplicated throughout the area.

Best Management Practices are currently being followed by NFWFMD. NFWFMD should continue to implement natural resource management BMPs within ECWMA. For example, BMPs for forestry operations are specified and published by the Florida Division of Forestry, and BMPs for erosion prevention and maintenance of water quality are known and specified by NFWFMD.

Table 4.2-1. ECWMA Management Zone Site Element Design Standards

Management Zone	Primitive Zone					Recreational Zone						Hunting Zone			Motorized Rural Zone	Educational Zone	Resource Protection Zone
	Creek/Stream	Lake	Trail	Horse Trail	Camping/Picnicking	Creek/Stream	Lake	Trail	Group Camp/Picnic	Spring	Off-Road Cycling	Dog Hunt	Still Hunt	Mobility Impaired			
Boat Launch/Ramp		X				X	X		X								
Designated, Stabilized Camping/Picnic Area Enclosed with Natural Barriers					X												
Designated, Stabilized Camping/Picnic Area Enclosed by Rail Fence							X		X								
Designated, Stabilized Parking Area Enclosed by Rail Fence	X	X		X	X	X	X		X	X	X						
Directional and/or Trail Markings	X		X	X				X		X	X						
Entrance/ Welcome Sign	X	X	X	X	X	X	X	X	X		X						
Entrance Gate							X		X	X							
Fire Rings					X		X		X								
Grills					X		X		X	X							
Informational Kiosk	X			X		X	X		X	X	X						
Interpretive Signs	X	X	X	X	X	X	X	X	X	X	X						
Listed Rules and Regulations	X	X	X	X	X	X	X	X	X	X	X						
Offsite Signs										X							
Pavilions							X			X							
Picnic Tables		X			X		X		X	X							
Trash Receptacles	X	X		X	X	X	X		X	X							
Registration/ Sign In	X		X	X													

4.3 Indicators/Standards/Monitoring/Management

The following are recommended indicators, standards, and monitoring strategies for the different zones of ECWMA. They are to be used to assess the resource and social conditions of the management zones and are to be used to monitor carrying capacity. They will require evaluation over time for accuracy and for practicality. They should not be seen as static and should be modified to meet the assessment needs of the different ECWMA zones over time and the commitment level of NFWFMD staff to recreational management and monitoring. In the development of the management plan of the area, NFWFMD should seek to use the groups (e.g., Bay County Sheriff; Florida Trail Association) it has entered into agreements with for assistance in the monitoring of the indicators. The indicators and suggested monitoring were developed under the assumption that level of staff and cooperation from Bay and Washington County Sheriff will not increase. Additional indicators and expanded monitoring would be optimal but only if NFWFMD can receive cooperation from volunteers or increased funding for additional staff.

Table 4.3-1 outlines the different indicators and standards for the different ECWMA zones. The table uses a number of different terms that require clarification. A *peak day* is a Saturday, Sunday, or holiday with good weather, from Memorial Day weekend through Labor Day weekend. *Social trail* refers to trails that have been formed from continued use but are not designated trails.

Table 4.3-1. Indicators and Standards for ECWMA Zones

MANAGEMENT ZONE	RESOURCE		SOCIAL		MONITORING AND MANAGEMENT ACTIONS
	INDICATOR	STANDARD	INDICATOR	STANDARD	
Primitive					
Creek/Stream	Number of moderately to heavily impacted sites	No more than two moderately to heavily impacted sites along creek banks	Number of boats per day on upper part of creek on peak days	Use does not exceed 15 canoes per peak day more than three times per year	<ul style="list-style-type: none"> ▪ The upper part of the creek should be paddled for assessment once a year. Criteria should be set to determine different levels of impacts to an area. They should be based on size, degree of use, and degree of degradation. All moderately to heavily impacted sites should be mitigated. ▪ Using a logbook or registration box at Scotts Road bridge, the number of boats should be determined to assess the level of use. ▪ Restrictions or guidelines should be posted at the canoe launch at Scott's Road indicating the water levels that are safe for canoeing down the upper part of the creek. At low water levels, the upper creek is not conducive for canoeing and requires many portages. These portages are difficult and increase the likelihood of bank erosion and impacts to the creek. At high water, the upper creek is treacherous. A sign should be placed at the bridge indicating the level of difficulty (hazardous, difficult, or good condition) based on the stage gauge reading at the bridge. Voluntary compliance from the canoe liveries prohibiting trips on the upper creek during high- and low-water conditions may also be appropriate.
Lake	Level of disturbance to lakeshore vegetation communities around lake	No increased disturbance to lakeshore vegetation community	Number automobiles at designated parking areas on peak user days	Parking does not exceed two vehicles at one time more than three times a year	<ul style="list-style-type: none"> ▪ Photo points should be established at each primitive lake site. A qualitative assessment should be made to describe the level of disturbance to the lakeshore community. Photo should be retaken biannually and compared with the current level. ▪ The Bay and Washington County sheriffs should be asked to record the number of vehicles using the designated parking areas. NWFWMD should pull the records from three peak days annually and assess the number of vehicles. ▪ Using a logbook or registration box at parking lots, the number of users should be determined to assess the level of use.

Table 4.3-1. Indicators and Standards for ECWMA Zones

MANAGEMENT ZONE	RESOURCE		SOCIAL		MONITORING AND MANAGEMENT ACTIONS
	INDICATOR	STANDARD	INDICATOR	STANDARD	
Trail	Number of social trails	No social trails	Number of people hiking on peak days	Use does not exceed 20 hikers per day more than five times per year	<ul style="list-style-type: none"> ▪ FTA should develop a monitoring plan for the trail. Minimally, FTA should monitor for social trails biannually and block them with either vegetation or logs. ▪ Using the logbook or registration box at major trailheads, the number of hikers should be determined to assess the level of use.
Horseback Trail	Number of social trails	No social trails	Number of vehicles at designated parking areas	Parking does exceed five vehicles more than three times per year	<ul style="list-style-type: none"> ▪ Biannually, STA should monitor for social trails and block them with either vegetation or logs. ▪ Using a logbook or registration box at parking lots, riders should register or record the date of use, number of vehicles, number of horses, and party size.
Camping/ Picnicking	a) Size of designated areas b) Condition of site	a) No increase in size of designated area b) No decrease in the condition of site	Number of people at one time a site on peak days	Camping does not exceed 10 people at one time more than three times per year Picnicking does not exceed 15 people at one time more than three times per year	<ul style="list-style-type: none"> ▪ Photo points should be established at each site. A qualitative assessment should be done to describe the condition of the site. In addition, a designated boundary should be established and the area of the site determined. Photo should be retaken biannually, compared with the current conditions, and the area of the site should be measured for comparison. ▪ The Bay and Washington County sheriffs should be asked to record the number of people using the designated site. NFWMD should pull the records from three peak days annually and assess the number of people using the sites.

Table 4.3-1. Indicators and Standards for ECWMA Zones

MANAGEMENT ZONE	RESOURCE		SOCIAL		MONITORING AND MANAGEMENT ACTIONS
	INDICATOR	STANDARD	INDICATOR	STANDARD	
Recreational					
Creek/Stream	Number of moderately to heavily impacted sites	No more than five moderately to heavily impacted sites	Number of boats rented on peak days	Boat rentals should not exceed 200 boats more than five times per year	<ul style="list-style-type: none"> ▪ The lower part of the creek should be paddled for assessment once a year. Criteria should be set to determine different levels of impacts to an area. They should be based on size, degree of use, and degree of degradation. All moderately to heavily impacted sites should be mitigated. ▪ NFWFMD should engage the canoe liveries to supply a report of the number of boats rented on three days. ▪ Using a logbook or registration box at Walsingham Canoe Launch/Picnic Area, the number of boats should be determined to see the level of use.
Lake	a) Level of disturbance to lakeshore vegetation communities around lake within 25 feet of designated recreation area b) Size of designated area c) Condition of site d) Water quality	a) Moderate level of disturbance to lakeshore vegetation communities within 25 feet of recreation area b) No increase in size of designated area c) No decrease in condition of site d) To be determined by NFWFMD	Number of people at a site at one time on peak days	At White Oak Landing use does not exceed 75 people at one time more than three times per year On the Hammock/Hamlin lakes, use does not exceed 30 people at one site more than three times a year	<ul style="list-style-type: none"> ▪ Photo points should be established within 25 feet of a designated recreation area (e.g., beach, boat ramp) for each lake site. A qualitative assessment should be made to describe the level of disturbance to the lakeshore community at that point. Photos should be retaken biannually to determine a level of disturbance. ▪ Photo points should be established at each recreation site. A qualitative assessment should be made to describe the condition of the site. In addition, a designated boundary should be established and the area of the site determined. Photos should be retaken biannually and compared with the current conditions, and the area of the site should be measured for comparison. ▪ The Bay and Washington County sheriffs should be asked to record the number of people using the designated site. NFWFMD should pull the records from three peak days annually and assess the number of people using the sites.
Trail	a) Number of social trails b) Number of disturbed or eroded areas along trail	a) No increase in number of social trails from established levels b) No more than five disturbed or eroded areas along trail	Number of people encountered on trail during peak hours of peak days	No more than 30 people observed at one time during peak hours of peak days	<ul style="list-style-type: none"> ▪ Annually NFWFMD should monitor for social trails and block them with vegetation, logs, fencing, and/or interpretive signs. ▪ NFWFMD should walk the established trail annually and record the number of people using the trail.

Table 4.3-1. Indicators and Standards for ECWMA Zones

MANAGEMENT ZONE	RESOURCE		SOCIAL		MONITORING AND MANAGEMENT ACTIONS
	INDICATOR	STANDARD	INDICATOR	STANDARD	
Group Camping/ Picnicking	a) Size of designated area	a) No increase in size of designated area	Number of people at one time at a site during peak days	Camping use does not exceed 25 people at one time	<ul style="list-style-type: none"> ▪ Photo points should be established at each site. A qualitative assessment should be made to describe the condition of the site. In addition, a designated boundary should be established and the area of the site determined. Photos should be retaken biannually and compared with previous conditions, and the area of the site should be measured for comparison. This monitoring and assessment should be done to determine the level of social trails, erosion, and bare soil and should be reevaluated at subsequent monitoring events. ▪ The Bay and Washington County sheriffs should be asked to record the number of people using the designated site. NFWFMD should pull the records from three peak days annually and assess the number of people using the sites. ▪ The number of users should be determined annually from the permits. ▪ The number of motorized boats per permit should be restricted to two.
	b) Condition of site	b) No decrease in the condition of site		Picnicking use does not exceed 25 people at one time (50 people at one time at Williford Springs)	
	c) Impacts outside of designated area	c) No increase social trails, erosion, or large areas of bare soil outside designated areas			
Spring (Pitts Springs)	a) Percentage of bare soil surface within designating area excluding parking and including area along spring run	a) 20% or less bare soil within designated area	Number of people at one time during peak days	Use does not exceed 100 people at one time for more than 10 peak days	<ul style="list-style-type: none"> ▪ Several photo points should be established at Pitts Springs to cover the whole site. A qualitative assessment should be made to describe the condition of the site. Photos should be retaken biannually and compared with the current conditions. During this monitoring, estimates of bare ground in the designated area should be assessed. In addition, social trails should be determined and mitigated. ▪ The Bay County sheriff should be asked to record the number of vehicles using the designated parking areas. NFWFMD should pull the records from three peak days annually and assess the number of vehicles.
	b) Condition of site	b) No decrease in condition of site			
	c) Number of social trails	c) No social trails			
Off-Road Bicycling	a) Number of social trails	a) No social trails	Number of automobiles at designated parking areas on peak user days	Parking does exceed 10 vehicles more than three times per year	<ul style="list-style-type: none"> ▪ The Panama City Flyers should monitor for social trails annually and should block them with vegetation, logs, fencing, and/or interpretive signs. ▪ The Bay and Washington County sheriffs should be asked to record the number of vehicles using the designated parking areas. NFWFMD should pull the records from three peak days annually and assess the number of vehicles.
	b) Number of disturbed or eroded areas along trail	b) No more than one disturbed or eroded area per mile along trail			

Table 4.3-1. Indicators and Standards for ECWMA Zones

MANAGEMENT ZONE	RESOURCE		SOCIAL		MONITORING AND MANAGEMENT ACTIONS
	INDICATOR	STANDARD	INDICATOR	STANDARD	
Hunting Zone					
	Health of game population	To be established by FFWCC	N/A	N/A	<ul style="list-style-type: none"> ▪ FFWCC should continue to monitor the game populations.
Motorized Rural Zone					
	Number of undesignated roads	No undesignated roads	N/A	N/A	<ul style="list-style-type: none"> ▪ NFWFMD should continue to monitor undesignated roads and keep them closed.
Educational Zone					
	To be determined as zone is developed	To be determined as zone is developed	N/A	N/A	<ul style="list-style-type: none"> ▪ Monitoring plan will be developed.
Resource Protection Zone					
	a) Population levels of threatened and endangered species b) Health of protected natural communities	a) To be established by NFWFMD b) No decrease in current health of protected natural communities; improved health in communities undergoing restoration	N/A	N/A	<ul style="list-style-type: none"> ▪ NFWFMD should inventory faunal threatened and endangered species and continue its inventory of floral threatened and endangered species. ▪ NFWFMD should continue monitoring and/or restoring the natural communities of ECWMA.

The recreational sites on ECWMA are at varying levels of development. They range from being closed with no facilities (Rattlesnake Lake) to being open and nearly fully developed (Pitts Springs). Sites that are currently closed should remain closed until they have been developed fully. It is important that complete facilities be in place when sites are reopened so visitors understand appropriate behaviors and purposes of each site. NFWFMD staff discussed several potential sites besides the ones proposed in this report (e.g., Hobbs Pasture). Currently there is not enough justification to open these sites because of the remote nature of the sites (difficult to patrol) and the limited resources for recreational development at ECWMA. We strongly recommend the complete and appropriate development of fewer recreational sites, as opposed to the partial development of myriad “new” recreational sites that would be harder to control.

Table 4.3-2 presents a suggested development priority list to update sites and develop new sites under the site element design standards outlined in Table 4.2-1. NFWFMD should first focus its management and development activities on sites that are already open in the following manner:

1. Eliminate or reduce negative recreational impacts at open sites,
2. Ensure that all open sites have the level of facilities needed and prescribed, and
3. Develop closed or undeveloped sites completely before opening.

Table 4.3-1 ECWMA Recreational Site Development Priority List

Development Priority	Zone/Site
High (0-1 year)	Recreational Zone 1) Pitts Springs 2) Lake: Porter Lake 3) Group Camping and Picnicking: All open sites Resource Protection Zone: Inventories, Restoration
Medium (1-3 years)	Recreational Zone 1) Creek/Stream: Parking lot and access points 2) Lake: Whitewater, Porter Lake Beach (proposed) 3) Trail: Pitts Springs 4) Group Camping and Picnicking: Rattlesnake Primitive Zone 1) Camping and Picnicking: All open sites 2) Creek/Stream: Upper Econfina Creek 3) Horseback: Trail parking
Low (2-5 years)	Recreational Zone 1) Lake: Hammock/Hamlin Lakes 2) Off-road Bicycling: Trail and parking Primitive Zone 1) Lake: Mabel Porter Road Lakes 2) Hiking: Florida Trail Educational Zone: Planning

5.0 MAPS OF ECONFINA CREEK WATER MANAGEMENT AREA

Figure 5-1. Resource Opportunity Areas

Figure 5-2. Existing Roads and Facilities

Figure 5-3. Sensitive Resource Areas

Figure 5-4. ECWMA Recreation Management Zones

6.0 TABULATION OF SURVEY RESULTS

Tabulation of Results of Survey of Permitted Users

Survey of Recreation on the Econfina Creek Water Management Area

Please take a few minutes to fill out our survey. This is a random survey of permit holders that will provide information to guide management and improvement of ECWMA.

Number of surveys returned	27
Survey postmark dates.....	10/22/99 through 12/31/99
Permit types (from code on survey)	Group Camp Permit Holders 11.1%
.....	Hunting or Recreation Permit Holders 88.9%
Where do you live? (City)	Panama City 44.4%
.....	Chipley 14.8%
.....	Panama City Beach 7.4%
.....	Youngstown 7.4%
.....	Lynn Haven 7.4%
.....	Fountain 7.4%
.....	Southport 3.7%
.....	Ponce de Leon 3.7%
.....	Wausau 3.7%
Where do you live? (State).....	Florida 100.0%
Where do you live? (County calculated from city and state)	Bay County 77.8%
.....	Washington County 18.5%
.....	Other NWF counties 3.7%
What kinds of outdoor recreational activities did you do in the last year?.....	Canoeing 81.4%
.....	Fishing 77.8%
.....	Swimming 77.8%
.....	Camping 70.4%
.....	Picnicking 66.7%
.....	Walking/Hiking 55.6%
.....	Hunting 44.4%
.....	Boating/Jet Skiing 33.3%
.....	Nature Observation 33.3%
.....	Bicycling 22.2%
.....	Horseback Riding 7.4%
.....	Other 7.4%
Your main outdoor recreational activity on the Econfina Creek WMA is	Camping 26.9%
.....	Canoeing 23.1%
.....	Hunting 19.2%
.....	Fishing 15.4%
.....	Swimming 7.7%
.....	Boating/Jet Skiing 3.8%

..... Horseback Riding 3.8%

Your main attraction in the Econfina Creek WMA is Creek and springs 16.7%
..... Hunting 16.7%
..... Swimming 12.5%
..... Peace and quiet 12.5%
..... Camping 8.3%
..... Rattlesnake Lake 8.3%
..... Canoeing 4.2%
..... Fishing 4.2%
..... Horseback Riding 4.2%
..... Ponds and lakes 4.2%
..... Proximity to my home 4.2%
..... Large conservation area 4.2%

Which parts of the Econfina Creek WMA have you used in the past? Econfina Creek 70.4%
..... Porter Lake 48.1%
..... Rattlesnake Lake 40.7%
..... Williford Spring 40.7%
..... Blue Springs 40.7%
..... Still Hunt Area 40.7%
..... Walsingham Park 25.9%
..... Primitive Camps 25.9%
..... Pitts Springs 14.8%
..... Dog Hunt Area 7.4%
..... Florida Trail 7.4%
..... Sparkleberry Pond 7.4%
..... McCormick Springs 3.7%
..... Hammock Lake 3.7%
..... Small ponds 3.7%

Which site or area of the Econfina Creek WMA do you use the most? Porter Lake 18.5%
..... Econfina Creek 18.5%
..... Blue Spring 14.8%
..... Still Hunt Area 11.1%
..... Rattlesnake Lake 7.4%
..... Primitive Camps 7.4%
..... Dog Hunt Area 3.7%
..... Walsingham Park 3.7%
..... Sparkleberry Pond 3.7%
..... Hammock Lake 3.7%
..... McCormick Springs 3.7%
..... Other 3.7%

Which part of the Econfina Creek WMA did you use on your last visit? Porter Lake 18.5%
..... Primitive Camps 14.8%
..... Econfina Creek 14.8%
..... Williford Spring 11.1%
..... Still Hunt Area 11.1%
..... Blue Spring 11.1%
..... Walsingham Park 3.7%

..... Dog Hunt Area 3.7%
 Sparkleberry Pond 3.7%
 McCormick Spring 3.7%
 Hammock Lake 3.7%

On your most recent visit, how crowded was the place you visited? Very Uncrowded 25.9%
 Uncrowded 14.8%
 Neither Crowded Nor Uncrowded 44.4%
 Crowded 14.8%
 Very Crowded 0.0%

How satisfied were you with your experience on your most recent visit? Very Satisfied 61.5%
 Satisfied 19.2%
 Neither Satisfied Nor Dissatisfied 11.5%
 Dissatisfied 7.7%
 Very Dissatisfied 0.0%

Are there any parts of Econfina Creek WMA that appear to be overused? Yes 23.1%
 No 76.9%

If yes, which parts are overused? Dog Hunt Area (n=2)
 Porter Lake (n=1)
 Devil's Hole (n=1)
 Hammock Lake (n=1)

What do you think should be done about it? Better enforcement of wildlife/hunting rules (n=2)
 Better enforcement of rules against littering, outboards, jet skiing (n=2)
 Reduce number of hunters (n=1)

Please give us your opinion on the following statements.

If an area is becoming overused, then the level of use by people should be restricted
 Strongly Agree 7.4%
 Agree 40.7%
 Neither Agree Nor Disagree 22.2%
 Disagree 18.5%
 Strongly Disagree 11.1%

If use of a specific area must be reduced, it would be better to eliminate the most destructive activities rather than reduce all uses proportionally Strongly Agree 33.3%
 Agree 48.1%
 Neither Agree Nor Disagree 11.1%
 Disagree 3.7%
 Strongly Disagree 3.7%

If an activity is destructive to natural resources or water quality, it should be stopped
 Strongly Agree 63.0%
 Agree 25.9%
 Neither Agree Nor Disagree 7.4%
 Disagree 3.7%
 Strongly Disagree 0.0%

I would be willing to pay an extra fee for a reserved recreational site, for example, a group campsite for a weekend Strongly Agree 18.5%
 Agree 48.1%
 Neither Agree Nor Disagree 14.8%
 Disagree 11.1%
 Strongly Disagree 7.4%

Permits are required for hunting, camping, or fishing on the Econfina Creek WMA. I would be willing to pay an additional or higher fee for the general use of improved areas and facilities in the Econfina Creek WMA Strongly Agree 18.5%
 Agree 44.4%
 Neither Agree Nor Disagree 14.8%
 Disagree 18.5%
 Strongly Disagree 3.7%

What would improve your recreational experience at the Econfina Creek WMA? (Results combined with next question.)

If you have any other suggestions or comments about recreation in the Econfina Creek WMA, please feel free to add them here.

- Reopen Rattlesnake Lake (n=5)
- Provide more facilities like shelters, fire rings, trash cans, port-o-lets (n=3)
- Provide more detailed maps and signs, print rules on permits (n=3)
- Keep ECWMA natural and undeveloped, very enjoyable and beautiful (n=3)
- Provide more primitive campsites (n=2)
- Provide more trash pick-up and encourage creek clean-ups by canoe (n=2)
- Expand hunt areas, provide feed plots (n=2)
- Eliminate hunting altogether (n=2)
- Allow people to reserve more than one weekend at a time (n=2)
- Allow alcohol consumption at sites (n=2)
- Provide more lake sites for camping, jet skiing, and swimming (n=1)
- Don't raise permit fees – too high already (n=1)
- Increase fines for littering and alcohol abuse (n=1)
- Limit the number of people on ECWMA (n=1)
- Coordinate burns to not impact campers (n=1)
- Reopen McCormick campsite (n=1)
- Keep dogs out of the still hunt areas (n=1)
- Open more roads (n=1)
- Allow ATV riding on utility rights-of-way (n=1)

Thank you for completing this survey. Your responses are very important to us and will be kept confidential. Please fill out and return this survey to Pandion Systems, Inc. We appreciate your taking the time to help us help you.

Please remove your mailing sticker and fold here to mail (staple or tape together) with the stamped addressed side showing.

Tabulation of Results of Survey of Canoeists

Econfina Creek Water Management Area Recreation Survey

After your trip, please fill out and return this survey to the canoe rental. Your responses will be anonymous. This survey will help the Northwest Florida Water Management District to better manage recreation on the Econfina Creek area. Thank you very much for your assistance.

Number returned..... 131

Survey dates 9/4/99 through 9/13/99

Where do you live? (City) Panama City 36.4%
..... Panama City Beach 11.6%
..... Youngstown 7.8%
..... Lynn Haven 7.8%
..... Southport 3.1%
..... Fountain 3.1%
..... Dothan 3.1%
..... Chipley 2.3%
..... Wilsonville 2.3%
..... Callaway 1.6%
..... Tallahassee 1.6%
..... Gainesville 1.6%
..... All Others (n=1 or 0.8% each) 16.2%

Other Florida cities: Destin, Springfield, Pensacola, Jacksonville, Milledgeville, Callaway, Parker, Sunny Hill,
Defuniak Springs, Santa Rosa, Orlando

Other Alabama cities: Midland, Sulphur, Headland, Harpersville, Foley

Other states: Paris, AR; Lake Charles, LA; Jasper, TN; Denver, CO; Ramsey, MN; Long Beach, CA

Where do you live? (State) Florida 86.0%
..... Alabama 9.3%
..... Other (see list above) 4.7%

Where do you live? (Area calculated from city and state) Bay County 72.9%
..... Washington County 4.7%
..... Other NWF Counties 5.4%
..... Other FL Counties 3.1%
..... Alabama Counties 9.3%
..... Other States 4.7%

Do you hold an Econfina Creek WMA permit? (Note: A permit is not required for canoeing on
Econfina Creek.) Yes 11.0%
..... No 89.0%

Is this your first visit to the Econfina Creek WMA? Yes 29.2%
..... No 70.8%

What kinds of outdoor recreational activities did you do on the Econfina Creek WMA in the past
year? Canoeing 98.9%
..... Swimming 92.3%
..... Picnicking 56.0%

..... Camping 34.1%
 Fishing 34.1%
 Walking/Hiking 24.2%
 Nature Observation 23.1%
 Boating/Jet Skiing 20.9%
 Hunting 14.3%
 Horseback Riding 5.5%
 Bicycling 5.5%
 Other (SCUBA, Photography, unspecified) 5.5%

What's the main outdoor recreation activity that you do at Econfina Creek WMA?..... Canoeing 67.1%
 Swimming 15.9%
 Boating/Jet Skiing 6.1%
 Fishing 3.7%
 Camping 3.7%
 Walking/Hiking 1.2%
 Picnicking 1.2%
 Nature Observation 1.2%

Which parts of the Econfina Creek WMA have you used in the past? Econfina Creek 96.6%
 Williford Spring 65.2%
 Pitts Springs 62.9%
 Walsingham Park 34.8%
 Group Camps 32.6%
 Primitive Camps 29.2%
 Rattlesnake Lake 19.1%
 Porter Lake 18.0%
 Still Hunt Area 10.1%
 Dog Hunt Area 10.1%
 [Gainer/Emerald Springs 9.0%]
 McCormick Spring 6.7%
 Florida Trail 5.6%
 Wolf Pond 1.1%
 Whitewater Pond 1.1%

How many people are in your canoeing group today? Mean 6.5, SD 5.1

Approximately how many other people did you see on the Econfina today? Mean 39.1, SD 30.8

How crowded would you say the Econfina Creek was today? Very Uncrowded 7.0%
 Uncrowded 19.5%
 Neither Crowded Nor Uncrowded 43.8%
 Crowded 25.8%
 Very Crowded 3.9%

Are there any parts of Econfina Creek that appear to you to be overused?..... Yes 26.8%
 No 73.2%

If yes, which parts are overused? Highway 20 and 388 Bridges 61.1%
 Springs (Pitts Spring 15%) 38.9%
 Econfina Creek 2.8%

What do you think could be done about the overcrowding?

- Limit loitering of non-boaters and enforce alcohol rules 42.9%
- Provide a full-time attendant at Pitts Spring 14.3%
- Clean up litter and provide more trash cans 14.3%
- Open a Highway 20 boat launch 9.5%
- Engender care and respect for the environment 9.5%
- Keep ECWMA as natural as possible 4.8%
- Reopen McCormick Springs 4.8%

How satisfied are you with your experience on Econfina Creek today?

- Very Satisfied 74.4%
- Satisfied 20.2%
- Neither Satisfied Nor Dissatisfied 2.3%
- Dissatisfied 1.6%
- Very Dissatisfied 1.6%

If you have any other suggestions or comments about recreation on Econfina Creek, please add them here

- Increase enforcement of rules against loitering and drinking at bridges 27.5%
- Keep ECWMA as natural as possible, don't "overdevelop" 11.8%
- Good management, beautiful area 10.8%
- More unrestricted public spaces (e.g., less restrictions on springs, allow dogs) 9.8%
- Reopen, improve, or add boat launches 8.8%
- Employ a full-time attendant at Pitts Springs 6.9%
- Provide new public areas (e.g., group camps, creek rest stops, picnic areas) 5.9%
- Restrict motor boats from Econfina Creek 3.9%
- Continue to pick up trash 3.9%
- Reopen McCormick Springs 2.9%
- Remove logs, trees, branches from creek 2.9%
- Provide more rope swings 2.0%
- Improve canoe rental screening process (e.g., prohibit alcohol) 2.0%
- Continue to have permit-only areas 1.0%
- More, better parking 1.0%
- More accurate predicted length of canoe trips 1.0%
- Cheaper canoes 1.0%

Please return this survey to the canoe rental. Thank you for your assistance.

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- FNAI species occurrences
- Florida Land Use Cover for Bay and Washington County
- Roads (FDOT, USGS and others) and water bodies (USGS)

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Appendix A—Meeting Agendas and Handouts

ECWMA JOINT RECREATIONAL PLANNING TEAM MEETING

Northwest Florida Water Management District Office, Havana, Florida

June 25, 1999

Proposed Agenda

- I. Overview of ECWMA
 - ❖ Review NFWMD Mission
 - ❖ Discuss what NFWMD envisions for ECWMA in terms of resource based recreation
 - ❖ Discuss problems and concerns regarding ECWMA (current and future)
- II. VERP Statement Development
 - ❖ Brainstorm/Draft ECWMA Purpose Statements
 - ❖ Brainstorm/Draft ECWMA Significance Statements
 - ❖ Outline/Draft Planning Constraints
- III. Discuss Public Involvement/Information Gathering
 - ❖ Information needed
 - ❖ Types of Target Groups
 - ❖ Mechanisms for gathering information
 - Surveys
 - Mail
 - Informal
 - Pandion Systems, Inc.
 - NFWMD
 - Others (Canoe Livery)
 - Permits
 - ❖ Time Frame to Collect Feedback for Final Recommendations
- IV. Schedule of Events
 - ❖ Reconnaissance—July 5-8
 - Public Use
 - Applicable Recreational and Sensitive Areas
 - ❖ County Fair
 - ❖ First MAC meeting
 - ❖ Game Commission Flights
 - ❖ Other
- V. Information Gathering
 - ❖ GIS Information
 - Most recent digital ortho-quads
 - All applicable GIS layers
 - Quadrangles
 - ❖ Other information besides information previously provided by NFWMD
- VI. Other Items
- VII. Action Items

**Econfina Creek Water Management Area
Management Advisory Committee
Northwest Florida Water Management District
September 20, 1999
9:30-11:30**

AGENDA

- I. Introductions—
- II. Project Overview—
- III. Issues Facing ECWMA—
- IV. Recreational Experiences on ECWMA—
- V. Discussion of Future Scenarios at ECWMA—
- VI. Written Feedback and Closing Comments—

**Econfina Creek Water Management Area
Management Advisory Committee
Northwest Florida Water Management District
September 20, 1999**

Written Feedback Form

Name _____ Affiliation _____

1. From the viewpoint of the group or organization that you represent, what kind of recreational opportunities SHOULD be offered at the Econfina Creek WMA? Why?

2. From the viewpoint of the group or organization that you represent, what kind of recreational opportunities SHOULD NOT be offered at the Econfina Creek WMA? Why?

3. Which type of recreational opportunity is the most important to you/your group?

4. Describe the characteristics of an optimal experience for the recreation opportunity mentioned in Question 3. (Hint: natural resources, level of crowding, support services, solitude, etc.)

5. If there is a point you wish to make that you felt was not heard at the meeting today, please tell us about it here.

6. If there are any other comments or suggestions that you would like to make about recreation on the Econfina Creek WMA, please feel free to add them here.

7. May we call you in October if we need further input? YES NO

Phone _____ Phone _____

Best time/place to reach you _____

Please return this form today or by October 1, 1999.

FAX TO: (352) 372-4714

MAIL TO:

Pandion Systems, Inc., 5200 NW 43rd Street, Suite 102 PMB 314, Gainesville, FL
32606-4482

**Econfina Creek Water Management Area
Management Advisory Committee
Northwest Florida Water Management District
January 5, 2000
9:00-11:30**

AGENDA

I. Introductions –

- Meeting Objectives and Ground Rules

II. Project and Process Review –

- Review VERP Framework
- Review Statements of Purpose, Significance, and Planning Constraints
- Describe Process

III. Discussion and Feedback of Recommendations –

Management Zone Discussion, ECWMA MAC Meeting, January 5, 2000

Management Zone	Sub-Zone	Areas	Activities	Discussion Points (Space for more comments on reverse)
Primitive	Creek/ Stream	Upper Econfina Creek: Scotts Road to Williford Springs	Canoeing, nature observation, swimming	
	Lake	Mabel Porter Road Lakes	Bank fishing, nature observation, picnicking	
	Trail	Florida Trail (16 miles in ECWMA)	Hiking, nature observation	
	Horseback Trail	Horseback Trail (26 miles in ECWMA)	Horseback riding, nature observation	
	Camping and Picnicking	Walsingham, Shell, Devil's Hole, Anise, Longleaf, Bluff or Grissett, Trapp, FT	Low-impact camping, (access by foot, canoe, or car)	
Recreational	Creek/ Stream	Lower Econfina Creek: Williford Springs to Reservoir	Canoeing, swimming, tubing	
	Lake	Porter*, Whitewater, Hammock-Hamlin	Boating, fishing, picnicking, swimming, water skiing*, camping*	
	Trail	Pitts Spring nature trail	Hiking, nature observation	
	Group Camping and Picnicking	Sparkleberry Pond, Blue Springs, Williford Springs (day use only), Rattlesnake Lake	Permitted group camping, fishing, boating, nature observation	
	Springs	Pitts Spring	Swimming, picnicking, nature observation	
	Off-Road Cycling	Trail to be developed	Off-road bicycling, nature observation	
Hunting	Dog	See Figure 5-4	Hunting with dogs	
	Still	See Figure 5-4	Still hunting and quota hunting	
	Mobility Impaired	See Figure 5-4	Mobility-impaired hunting	
Motorized Rural		County roads in ECWMA	Driving, nature observation	
Educational		Gainer Family Homestead area, others	Environmental Education	
Resource Protection		Areas not in some other zone, hunt areas off-season	Limited to research or monitoring activities	

Please include additional comments on reverse side or additional sheet, and return to:

Pandion Systems, Inc., 5200 NW 43rd Street, Suite 102-314, Gainesville, FL 32606, Fax: 352-372-4714

Appendix B — Survey Forms