

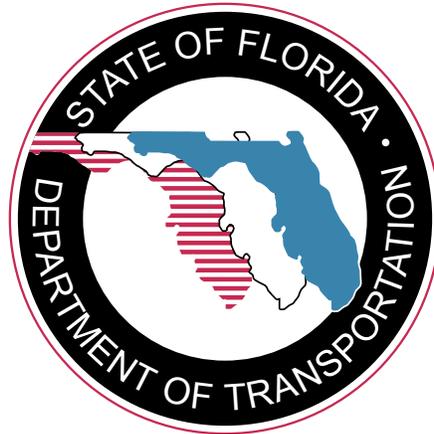
# **DETERMINATION OF SECTION 4(F) APPLICABILITY**

## **SR 33 PD&E Study**

From Old Combee Road to north of Tomkow Road  
Polk County, Florida

Financial Project ID No.: 430185-1-22-01  
Federal Aid Project No.: N/A

PREPARED FOR:



PREPARED BY:

Inwood Consulting Engineers, Inc.

**October 2013**



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**Appendix A – SR 659/SR 33 Intersection Improvement Alternatives**  
**Appendix B – Tenoroc Fish Management Area**  
**Appendix C – Correspondence**

## **Section 1 - Introduction**

### **1.1 Purpose**

The SR 33 Project Development and Environment (PD&E) Study is being conducted by the Florida Department of Transportation (FDOT) to evaluate roadway and interchange improvement alternatives. The project study area begins at Old Combee Road and extends northward to north of Tomkow Road in Polk County, a distance of approximately 4.2 miles.

This PD&E Study will evaluate potential involvement with Section 4(f) resources and a determination will be made regarding the applicability of Section 4(f) in accordance with the Department of Transportation Act (49 USC, Section 303) and Chapter 13, Part Two, of the FDOT PD&E Manual (Topic # 650-000-001, Rev. 05-22-98).

The applicability of Section 4(f) is based upon a project's use of land from property which is used as a designated Section 4(f) resource. There are three basic categories of Section 4(f) resources. These include publicly owned parks, recreation areas and wildlife and waterfowl refuges, historic and archaeological sites and properties which represent public multiple-use holdings. In order for a property to be considered a Section 4(f) resource, it must function or be designated as a significant public park, recreation area, wildlife or waterfowl refuge or historic site. If a resource is determined to be a Section 4(f) resource, then a determination must be made as to whether the project entails a use of that property within the meaning of Section 4(f). Use can be either direct, which occurs when land from a Section 4(f) resource is permanently incorporated into a transportation facility, or indirect (constructive use) when there are proximity impacts resulting from the transportation project. The determination of the applicability of Section 4(f) on a property is made by the Federal Highway Administration (FHWA).

### **1.2 Project Description**

The project limits of the SR 33 PD&E Study are from Old Combee Road to north of Tomkow Road in Polk County, a distance of approximately 4.2 miles (Figure 1). The existing roadway is generally a two-lane rural roadway that is a

Figure 1  
Project Location Map



designated Emergency Evacuation Route. SR 33 has been classified by FDOT as an urban minor arterial through the study limits. The posted speed limit ranges from 45 mph near the Old Combee Road intersection and increases to 50 and then 60 miles per hour west of SR 659 heading northward. There is residential development in the area of Old Combee Road to SR 659 which continues along the west side of SR 33 as part of the Bridgewater development. North of SR 659, the land east of SR 33 is undeveloped. There is industrial development (Firstpark at Bridgewater) located in the southwest quadrant of the SR 33 interchange with I-4 and there is heavy truck usage on SR 33 between SR 659 and I-4.

### **1.3 Potential Section 4(f) Resources**

After reviewing land uses within the corridor limits, one potential Section 4(f) property was identified. The site is the Tenoroc Fish Management Area (FMA) located generally south and east of SR 33. The purpose for the Determination of Applicability (DOA) is to determine if the provisions of Section 4(f) apply to the Tenoroc Fish Management Area.

The Tenoroc FMA occupies 7,367 acres in Polk County, Florida. It is located south of I-4 and is bisected by SR 659. The Tenoroc FMA is made up primarily of previously mined lands that have been converted to water filled pits that remained after strip mining operations were terminated.

SR 33 roadway improvements from Old Combee Road to north of Tomkow Road are needed to provide capacity for future traffic demand and to correct deficiencies associated with I-4 interchange. Improvements will consist of widening SR 33 to a four-lane divided roadway through the project limits and reconstruction of the I-4 interchange.

### **1.4 Preferred Roadway Improvement Alternative**

Although a preferred alignment, roadway or bridge alternative have not been determined yet, a four-lane divided roadway with four through lanes under I-4 is proposed. The existing SR 33 road right-of-way is 200 feet in width and will generally accommodate the proposed widening of SR 33. Some intersection improvements could require additional right-of-way. Improvements to the I-4 interchange will consist of interchange improvements that will involve replacing

the I-4 bridges over SR 33. It is anticipated that minor right-of-way acquisition will be required along the ramps to accommodate the SR 33/I-4 interchange improvements.

The traffic report prepared for the PD&E Study shows that there will need to be southbound dual left turn lanes provided on SR 33 at the SR 659 intersection. Since SR 659 is a two lane roadway with only one eastbound lane to receive left turning vehicles from SR 33, SR 659 would need to be widened to accept the second left turn lane movement. Further traffic analysis was conducted and the need for the second southbound left turn lane will not be needed until almost the design year (2035). Therefore, the recommended improvements will include construction of the dual left turn lanes on SR 33, however one of the lanes will be striped out and no improvements will be made to SR 659. Therefore, no direct impacts to the Tenoroc FMA property along SR 659 will be impacted.

Figure A-1 in Appendix A shows the “worst case” full buildout of SR 659 to accept the dual left turn lanes from SR 33 that is no longer being considered. Figure A-2 shows the proposed intersection improvements which do not involve acquisition of right-of-way along SR 659.

The determination of Section 4(f) applicability for the Tenoroc Fish Management Area is contained in Section 2.

## **Section 2 – The Tenoroc Fish Management Area**

### **2.1 A detailed map or drawing of sufficient scale to identify the relationship of alternatives to the Section 4(f) property:**

Figure 2 is a map which identifies the location of the Tenoroc FMA in relation to SR 33. The proposed roadway widening will not directly impact the Tenoroc FMA land.

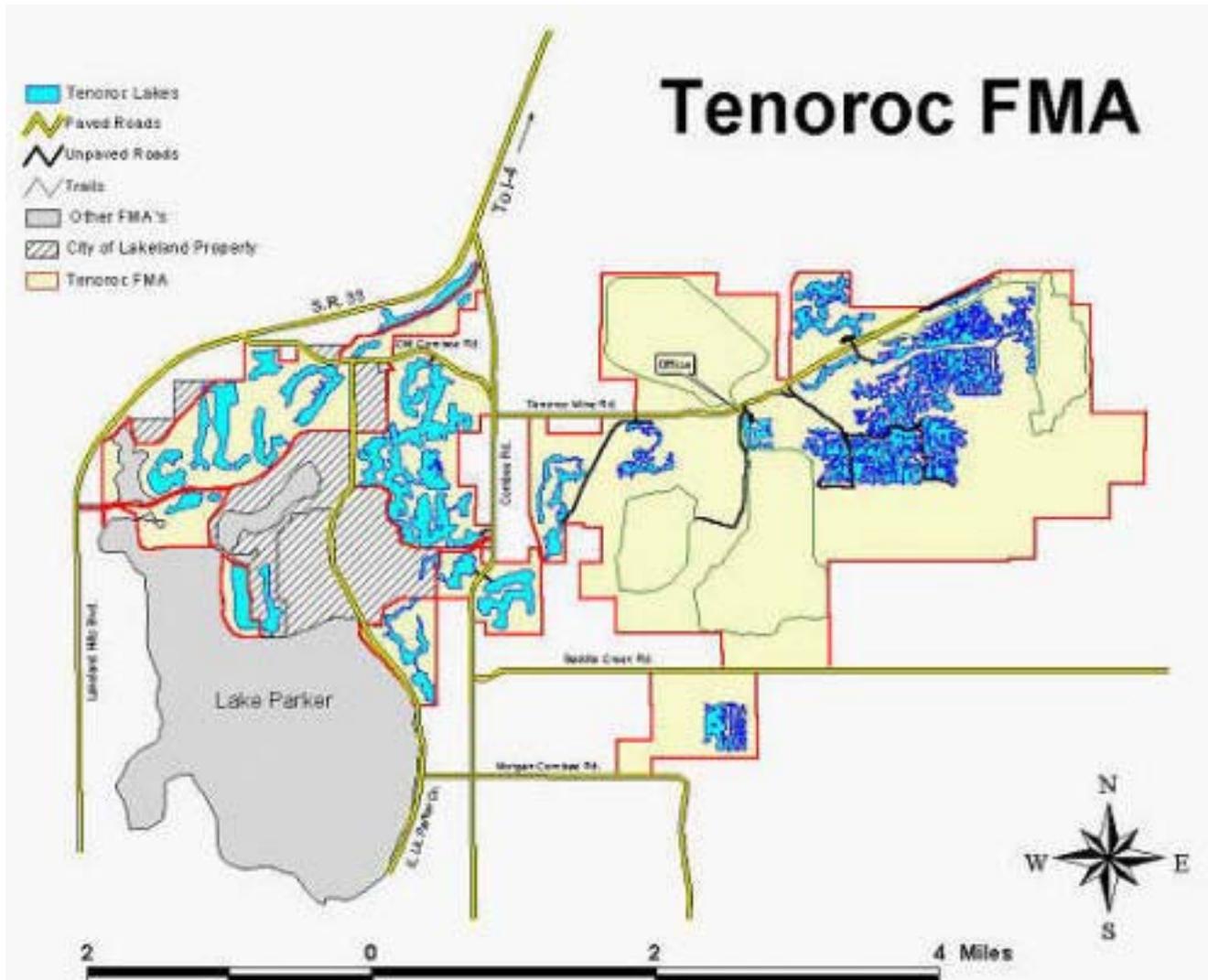
### **2.2 Size and location of the Section 4(f) property:**

The Tenoroc FMA is a multiple use property that consists of lakes, phosphate clay settling areas and sand tailing areas that resulted from the historic mining and reclamation activities. The site is located in Polk County, generally northeast of the City of Lakeland. The total acreage of the FMA is 7,444 acres. Only 17% (1,268 acres) of the Tenoroc FMA is classified as unmined/undisturbed.

### **2.3 Ownership and type of Section 4(f) property:**

The original Tenoroc land tract was donated to the State of Florida by Borden, Inc. in September 1982. The original lease agreement with the Board of Trustees of the Internal Improvement Trust Fund (TIITF) for the initial donated tract of land was co-signed by the Division of Recreation and Parks, the Florida Fish and Wildlife Conservation Commission (FFWCC) and the Department of Agriculture and Consumer Services Division of Forestry (DOF) on June 24, 1984. A new 50 year lease from the Board of Trustees was signed on May 23, 1993. This lease designated the FFWCC as the Lead Agency and the DOF as a Cooperating Agency. The lease has been modified twice to include additional land purchases. In 1998, 341 acres was purchased with funds from the Non-Mandatory Reclamation Trust Fund and Preservation 2000. In 2000, 968 acres was purchased through the Preservation 2000 Inholdings and Additions Program. The Board of Trustees is the sole titleholder for all lands included within the managed area.

Figure 2  
Tenoroc Fish Management Area Map



## **2.4 Function of or available activities on the property:**

The Tenoroc FMA is managed under a multi-use strategy with five primary goals:

1. To provide high-quality recreational opportunities with special emphasis on public fishing;
2. To improve water quality on or leaving the Tenoroc FMA;
3. To restore functional hydro-periods and drainage;
4. To provide natural resource-based education; and
5. To enhance native plant communities.

Recreational fishing accounts for approximately 86% of the annual public use at the Tenoroc FMA. Other recreational uses include hiking, horseback riding, bird watching, picnicking and biking. The Florida Trail Association helps maintain a six-mile section of the Florida Trail which runs through the Tenoroc FMA. There are also approximately 20 miles of equestrian trails that are used by several local riding clubs. The Ridge Audubon Society conducts annual bird counts and FFWCC-sanctioned fishing derbies are held at Picnic Lake and Derby Lake.

A major regional shooting range was build on the Tenoroc FMA by the FFWCC. It includes rifle, pistol and air gun ranges, trap/skeet and sporting clay stations and ground level, elevated and 3-D archery ranges. Limited hunting opportunities are also provided for dove, alligator and feral hogs. The Conceptual Management Plan for the Tenoroc Fish Management Area is included in Appendix B.

## **2.5 Description and location of all existing and planned facilities:**

The Tenoric FMA includes twenty boat launching facilities with parking areas. In addition, Derby Lake includes a picnic pavilion, restrooms, three fishing piers, 200-foot long fishing boardwalk, four fishing platforms and educational kiosks. Picnic Lake includes a picnic pavilion, restrooms and four fishing platforms. Pasture Lake includes six fishing platforms.

A six-mile section of the Florida Trail is routed through Tenoroc and there are 20 miles of equestrian trails. FWC also constructed a major regional shooting sports facility at Tenoroc which includes rifle, pistol and air gun ranges, trap/skeet and sporting clays stations, and ground level, elevated and 3D archery ranges.

The Resource Management Goals and Objective identify future improvements including improved access to additional lakes, improved access facilities for physically challenged anglers, creating additional non-consumptive recreational activities, complete on-site reforestation plan, reduce upland exotic plant species coverage, manage existing stands of native vegetation through prescribed burning and continue to explore the acquisition of lands bordering Tenoroc.

**2.6 Access and usage:**

Public access for fishing is provided four days a week (Friday through Monday) between 6 am and 8 pm. The public shooting range is open Monday, Thursday and Friday from 9 am to 5 pm and on Saturday and Sunday from 8 am to 5 pm.

**2.7 Relationship to other similarly used lands in the vicinity:**

There are five other similar significant state resources located near the Tenoroc FMA. These include the Green Swamp Area of Critical State Concern to the north, the Lake Crago FMA to the west, the Lake Parker FMA to the south, the Saddle Creek Park FMA to the south and the Peace River Greenway to the south. The Lake Crago, Lake Parker and Saddle Creek Park FMAs are managed by the FFWCC.

**2.8 Applicable clause affecting the ownership, such lease, easement, covenants, restrictions, or conditions, including forfeiture:**

There is no applicable clause affecting the ownership of the property.

**2.9 Unusual characteristics of the Section 4(f) property that either reduce or enhance the value of all or part of the property:**

There are no unusual characteristics of the Tenoroc Fish Management Area that either reduce or enhance the value of the property. The property includes a dense concentration of mine pit lakes.

**2.10 Statement of significance from the official who has jurisdiction over the 4(f) property:**

A letter from the Florida Fish and Wildlife Conservation Commission is provided in Appendix B.

**2.11 Whenever a potential constructive use is identified, include a description of the attributes or features of the Section 4(f) property which may be sensitive to proximity impacts along with a discussion and evaluation of project activities which may result in proximity impacts to the resource:**

No constructive use is anticipated to result from this project.

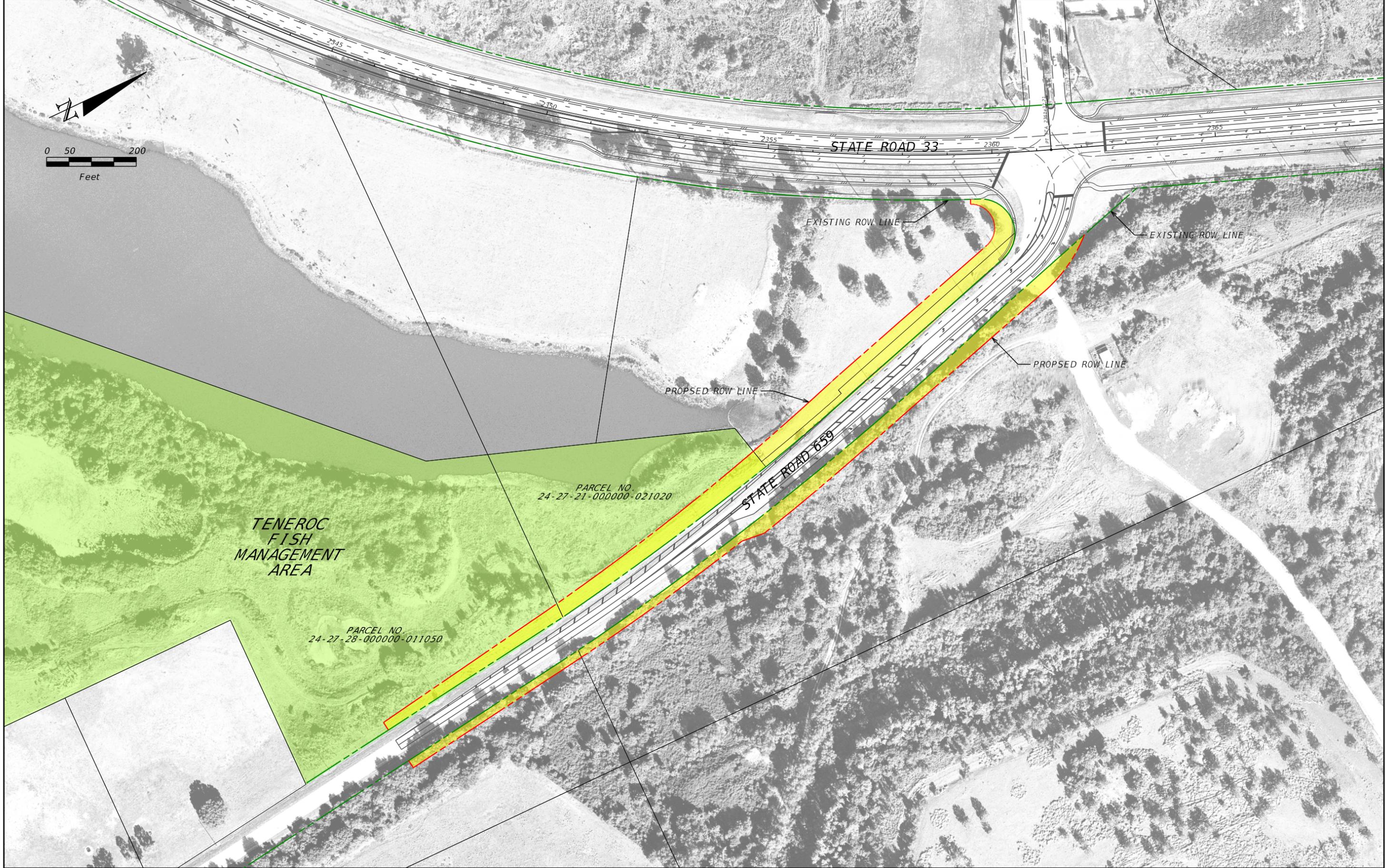
### **Section 3 – Summary**

After review of the functions of the Tenoroc Fish Management Area, it appears that it may be considered a Section 4(f) resource. However, the proposed roadway improvements will not include any direct impacts (property acquisition) to the FMA nor will the proposed roadway improvements negatively affect the function or public use of the FMA. No indirect (constructive use) impacts are anticipated at this potential Section 4(f) resource associated with the planned widening of SR 33.

This project will have no effect on any Section 4(f) resources as defined by the Department of Transportation Act of 1966 (as amended in 49 USC, Section 303) and Chapter 13, Part Two of the FDOT PD&E Manual (Topic #650-000-001, Rev. 05-22-98).

# APPENDIX A

- Figure A-1 – Full SR 659/SR 33 intersection buildout alternative
- Figure A-2 – Minimized SR 659/SR 33 intersection improvement (recommended)



REVISIONS	
DATE	DESCRIPTION

ENGINEER OF RECORD  
 Mark D. Hales, PE  
 PE No. 62430  
 Inwood Consulting Engineers, Inc.  
 Certificate of Authorization No. 7074  
 3000 Dovera Drive, Suite 200, Oviedo, Florida 32765  
 P. 407.971.8850

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 33	POLK	480185-1-22-01

**ROW IMPACTS  
 PAVEMENT SAVING  
 SR659 FULL BUILD OUT**

FIGURE  
 A-1



REVISIONS	
DATE	DESCRIPTION

ENGINEER OF RECORD  
 Mark D. Hales, PE  
 PE No. 62430  
 Inwood Consulting Engineers, Inc.  
 Certificate of Authorization No. 7074  
 3000 Dovera Drive, Suite 200, Oviedo, Florida 32765  
 P 407.971.8850

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 33	POLK	480185-1-22-01

**ROW IMPACT  
 PAVEMENT SAVING  
 SR 659 MINIMUM BUILD OUT**

FIGURE  
 A-2

# **APPENDIX B**

## **The Tenoroc Fish Management Area**

- Parcel data for the two Tenoroc Fish Management Area parcels adjacent to SR 659
- Pictures of the Tenoroc Fish Management Area adjacent to SR 33
- The Tenoroc Fish Management Area Conceptual Management Plan
- Statement of Significance from the Florida Fish and Wildlife Conservation Commission

[Home](#) » [Return To Search Results](#)

**Parcel Details: 24-27-28-000000-011050**

Tax Est Prt Calc PRC Trim

**Owners**

TIITF/FISH & WILDLIFE 100%

**Mailing Address**

Address 1 **3900 COMMONWEALTH BLVD**  
 Address 2  
 Address 3 **TALLAHASSEE FL 32399-6575**

**Site Address**

Address 1 **O COMBEE RD N**  
 Address 2  
 City **LAKELAND**  
 State **FL**  
 Zip Code **33805**

**Parcel Information**

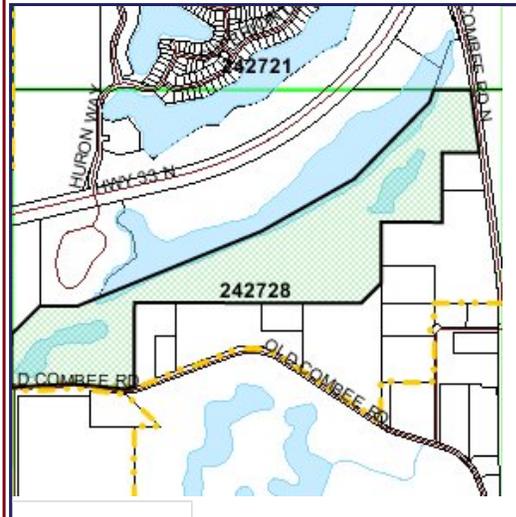
Neighborhood **6666.00**  
[Show Recent Sales in this Neighborhood](#)  
 Subdivision **NOT IN SUBDIVISION**  
 Property (DOR) Use Code **Vacant State - vac land or misc impr of some value (Code: 7087)**  
 Acreage **97.69**  
 Taxing District **LAKELAND/SWFWMD/LKLD MASS (Code: 91510)**

**Property Desc**

**DISCLAIMER:** This property description is a condensed version of the original legal description recorded in the public records. It does not include the section, township, range, or the county where the property is located. The property description should not be used when conveying property. The Property Appraiser assumes no responsibility for the consequences of inappropriate uses or interpretations of the property description. No warranties, expressed or implied, are provided for the data herein, its use, or its interpretation.

BEG AT SW COR OF NW1/4 OF SEC 28 RUN N 45 DEG 12'25"E 431.30 FT RUN E 400 FT N 67 DEG 51'04"E 2135.88 FT N 60 DEG 37' 42"E 1147.50 FT N 44 DEG 23'29"E 1159.49 FT RUN ALONG BEARING OF N 19 DEG 01'10"E TO ITS INTERSECTION WITH N BDRY OF SEC 28 RUN E ALONG N BDRY OF SEC 28 TO WLY R/W LN OF COMBEE RD RUN SELY ALONG CURVE OF R/W 61.12 FT RUN S 07 DEG 44'10"E 621.22 FT RUN W 400 FT S 750 FT W 654.28 FT S 657.66 FT S 45 DEG 02'22"W 300 FT W 2437.54 FT S 912.47 FT TO NLY R/W LN OF OLD COMBEE

**Area Map**



**Mapping Worksheets (plats) for 242728**

[Mapping Worksheet Info](#)  
[Section\\_242728.pdf](#)

## Sales History

**Note:** If you wish to obtain a copy of a deed on this parcel click on the blue, underlined OR Book/Page number, which is linked to the official records of the Clerk of the Court. Once you are on their website click on the word VIEW which is in blue on the left side of that page and then follow the instructions for printing the document. If the deed does not have a blue link to official records, the deed is not available through the online records of the Clerk of the Circuit Court. In order to obtain a copy of that deed you will need to contact the Clerk's Indexing Department at 863-534-4524. If the Type Inst is an R it is not available through the Clerk of the Court. To order R type instruments you need to contact the Property Appraiser.

OR Book/Page	Date	Type Inst	Vacant/ Improved	Grantee	Sales Price
<a href="#">4500/0837</a>	01/2000	C	V		\$100
<a href="#">4397/0862</a>	01/2000	W	V	TIITF/FISH & WILDLIFE	\$6,555,200

## Exemptions

**Note:** The drop down menus below provide information on the amount of exemption applied to each taxing district. The HX—first \$25,000 homestead exemption may be allocated to one or more owners. The HB—second \$25,000 amended homestead exemption reflects the name of the first owner only.

Code	Description	% Ownership	Renew Cd	Year	Name	Value
☒ 014	21-30-FS196.199(1)(B)-STATE GOVT PROP	100%		2001	TIITF/FISH & WILDLIFE	\$464,687

Senior Exemption(Additional Homestead Exemption for Persons 65 and Older): For the 2012 tax year, the allowable total household adjusted gross income received during 2011 could not exceed \$27,030. If your total household adjusted gross income exceeded this limit, **YOU MUST NOTIFY THIS OFFICE.** Receiving no notification from the qualified senior will be considered a sworn statement, under penalty of perjury, that the income does not exceed the limit. **Improperly claiming any exemption could result in a lien against your property.** If you would like to receive a notice of renewal electronically, please send us an email at [paoffice@polk-county.net](mailto:paoffice@polk-county.net) with your name, property address, and confirmation of your request.

## PERMITS

The Polk County Property Appraiser's Office does not issue or maintain permits. Please contact the [appropriate permit issuing agency](#) to obtain information. This property is located in the **LAKELAND/SWFWMD/LKLD MASS** taxing district. The beginning of the description indicates permit agency (UNINCORP is an abbreviation for Unincorporated **POLK COUNTY**).

## Land Lines (Current)

LN	Land Dscr	Note	Ag/GreenBelt	Land Unit Type	Front	Depth	Units
1	* Commercial/Industrial		N	S	0	0	4255376
* for current use NOT Future Land Use							

**NOTICE: All information ABOVE this notice is current (as of Wednesday, June 19, 2013 at 2:34:51 AM). All information BELOW this notice is from the 2012 Final Tax Roll, except where otherwise noted.**

## Value Summary (2012 Final)

Desc	Value
Total Land Value	\$464,687
Total Building Value	\$0
Total Extra Features Value	\$0
Land Classified Value	\$0
Just Market Value	\$464,687
*Cap Differential and Portability	\$0
Agriculture Classification	\$0

Total Assessed Value \$464,687

*\*This property contains a Non Homestead Cap with a differential of \$0.*

**Taxable Value (2012 Final)**

District Description	Tax Rate	Assessed Value	Assessed Taxes	Exemption	Tax Savings	Taxable Value	Taxes
Board Of County Commissioners - GF	6.866500	\$464,687	\$3,190.77	\$464,687	\$3,190.77	\$0	\$0.00
Polk County School Board - State	5.244000	\$464,687	\$2,436.82	\$464,687	\$2,436.82	\$0	\$0.00
Polk County School Board - Local	2.248000	\$464,687	\$1,044.62	\$464,687	\$1,044.62	\$0	\$0.00
City Of Lakeland	4.664400	\$464,687	\$2,167.49	\$464,687	\$2,167.49	\$0	\$0.00
South West FLA Water Mgmt Dist	0.392800	\$464,687	\$182.53	\$464,687	\$182.53	\$0	\$0.00
Lakeland Mass Transit	0.500000	\$464,687	\$232.34	\$464,687	\$232.34	\$0	\$0.00
Board Of County Commissioners - DS	0.000000	\$464,687	\$0.00	\$464,687	\$0.00	\$0	\$0.00
		<b>Assessed Taxes:</b>	<b>\$9,254.57</b>	<b>Tax Savings:</b>	<b>\$9,254.57</b>	<b>Total Value:</b>	<b>\$0.00</b>

**Taxes**

Desc	Last Year	2012 Final
Taxing District	LAKELAND/SWFWMD/LKLD MASS (Code: 91510)	LAKELAND/SWFWMD/LKLD MASS (Code: 91510)
Millage Rate	19.5937	19.9157
Ad Valorem Assessments	\$0.00	\$0.00
Non-Ad Valorem Assessments	\$0.00	\$0.00
<b>Total Taxes</b>	<b>\$0.00</b>	<b>\$0.00</b>

**Your final tax bill may contain Non-Ad Valorem assessments which may not be reflected on this page, such as assessments for roads, drainage, garbage, fire, lighting, water, sewer, or other governmental services and facilities which may be levied by your county, city or any other special district. [Visit the Polk County Tax Collector's site for Tax Bill information related to this account.](#) Use the [Property Tax Estimator](#) to estimate taxes for this account.**

**Prior Year Final Values**

**2011**

Land Value	\$464,687.00
Building Value	\$0.00
Misc. Items Value	\$0.00
Total Just Value (Market)	\$464,687.00
SOH Deferred Val	\$0.00
Assessed Value	\$464,687.00
Exempt Value	\$464,687.00
Taxable Value	\$0.00

**2010**

Land Value	\$536,177.00
Building Value	\$0.00
Misc. Items Value	\$0.00
Total Just Value (Market)	\$536,177.00
SOH Deferred Val	\$0.00
Assessed Value	\$536,177.00
Exempt Value	\$536,177.00
Taxable Value	\$0.00

**2009**

Land Value	\$536,177.00
Building Value	\$0.00
Misc. Items Value	\$0.00
Total Just Value (Market)	\$536,177.00
SOH Deferred Val	\$0.00
Assessed Value	\$536,177.00
Exempt Value	\$536,177.00
Taxable Value	\$0.00

**2008**

Land Value	\$536,177.00
Building Value	\$0.00
Misc. Items Value	\$0.00
Total Just Value (Market)	\$536,177.00
SOH Deferred Val	\$0.00
Assessed Value	\$536,177.00
Exempt Value	\$536,177.00
Taxable Value	\$0.00

**2007**

Land Value	\$536,177.00
Building Value	\$0.00
Misc. Items Value	\$0.00
Land Classified Value	\$0.00
Total Just Value (Market)	\$536,177.00
SOH Deferred Val	\$0.00
Agriculture Classification	\$0.00
Assessed Value	\$536,177.00
Exempt Value	\$536,177.00
Taxable Value	\$0.00

**DISCLAIMER:**

The Polk County Property Appraiser makes every effort to produce and publish the most current and accurate information possible. The PCPA assumes no responsibility for errors in the information and does not guarantee that the data are free from errors or inaccuracies. Similarly the PCPA assumes no responsibility for the consequences of inappropriate uses or interpretations of the data. No warranties, expressed or implied, are provided for the data herein, its use, or its interpretation. Utilization of the search facility indicates understanding and acceptance of this statement by the user.

Last Updated: Wednesday, June 19, 2013 at 2:34:51 AM

[Home](#) » [Return To Search Results](#)**Parcel Details: 24-27-21-000000-021020**
 Tax Est
  Prt Calc
  PRC
  Trim
**Owners**

TIITF/FWCC 100%

**Mailing Address**

Address 1 **3900 COMMONWEALTH BLVD**  
 Address 2  
 Address 3 **TALLAHASSEE FL 32399-6575**

**Site Address**

Address 1 **COMBEE RD N**  
 Address 2  
 City **LAKELAND**  
 State **FL**  
 Zip Code **33805**

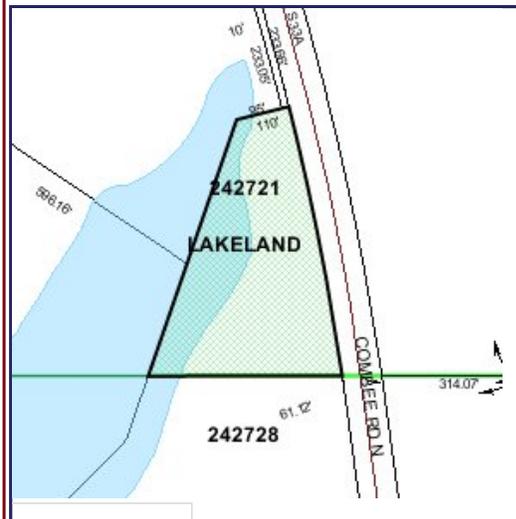
**Parcel Information**

Neighborhood **6666.00**  
[Show Recent Sales in this Neighborhood](#)  
 Subdivision **NOT IN SUBDIVISION**  
 Property (DOR) **Vacant State - vac land or misc**  
 Use Code **impr of some value (Code: 7087)**  
 Acreage **3.15**  
 Taxing District **LAKELAND/SWFWMD/LKLD**  
**MASS (Code: 91510)**

**Property Desc**

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COMM AT SW COR OF NW1/4 OF SEC 28-27-24 RUN N 45 DEG 12'25"E 431.30 FT TO E LN OF W 304.98 FT OF SAID NW1/4 RUN N 935.40 FT TO SLY R/W LN OF SR 33 RUN ALONG SLY R/W LN N 77 DEG 00'59"E 1483.71 FT TO PT OF CURVE RUN NELY ALONG CURVE 2206.92 FT TO PT ON S LN OF SEC 21-T27S-R24E CONT ALONG SAME CURVE 1676.48 FT RUN N 20 DEG 32'09"E 39.04 FT TO WLY R/W LN OF COMBEE RD RUN S 16 DEG 21'10"E 688.08 FT TO PT OF CURVE RUN SELY ALONG CURVE 233.66 FT TO POB RUN S 76 DEG 00'02"W 110 FT RUN

**Area Map****Mapping Worksheets (plats) for 242721**

[Mapping Worksheet Info](#)  
[Section\\_242721.pdf](#)

### Sales History

**Note:** If you wish to obtain a copy of a deed on this parcel click on the blue, underlined OR Book/Page number, which is linked to the official records of the Clerk of the Court. Once you are on their website click on the word VIEW which is in blue on the left side of that page and then follow the instructions for printing the document. If the deed does not have a blue link to official records, the deed is not available through the online records of the Clerk of the Circuit Court. In order to obtain a copy of that deed you will need to contact the Clerk's Indexing Department at 863-534-4524. If the Type Inst is an R it is not available through the Clerk of the Court. To order R type instruments you need to contact the Property Appraiser.

OR Book/Page	Date	Type Inst	Vacant/Improved	Grantee	Sales Price
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<a href="#">4397/0862</a>	01/2000	W	V	TIITF/DEP	\$6,555,200

### Exemptions

**Note:** The drop down menus below provide information on the amount of exemption applied to each taxing district. The HX—first \$25,000 homestead exemption may be allocated to one or more owners. The HB –second \$25,000 amended homestead exemption reflects the name of the first owner only.

Code	Description	% Ownership	Renew Cd	Year Name	Value
014	21-30-FS196.199(1)(B)-STATE GOVT PROP	100%		2001 TIITF/FWCC	\$1,575

Senior Exemption(Additional Homestead Exemption for Persons 65 and Older): For the 2012 tax year, the allowable total household adjusted gross income received during 2011 could not exceed \$27,030. If your total household adjusted gross income exceeded this limit, **YOU MUST NOTIFY THIS OFFICE**. Receiving no notification from the qualified senior will be considered a sworn statement, under penalty of perjury, that the income does not exceed the limit. **Improperly claiming any exemption could result in a lien against your property**. If you would like to receive a notice of renewal electronically, please send us an email at [paoffice@polk-county.net](mailto:paoffice@polk-county.net) with your name, property address, and confirmation of your request.

### PERMITS

The Polk County Property Appraiser's Office does not issue or maintain permits. Please contact the [appropriate permit issuing agency](#) to obtain information. This property is located in the **LAKELAND/SWFWMD/LKLD MASS** taxing district. The beginning of the description indicates permit agency (UNINCORP is an abbreviation for Unincorporated **POLK COUNTY**).

### Land Lines (Current)

LN	Land Dscr	Note	Ag/GreenBelt	Land Unit Type	Front	Depth	Units
1	* Low or inaccessible		N	A	0	0	3.15
* for current use NOT Future Land Use							

**NOTICE: All information ABOVE this notice is current (as of Wednesday, June 19, 2013 at 2:34:51 AM). All information BELOW this notice is from the 2012 Final Tax Roll, except where otherwise noted.**

### Value Summary (2012 Final)

Desc	Value
Total Land Value	\$1,575
Total Building Value	\$0
Total Extra Features Value	\$0
Land Classified Value	\$0
Just Market Value	\$1,575
*Cap Differential and Portability	\$0
Agriculture Classification	\$0
Total Assessed Value	\$1,575

\*This property contains a Non Homestead Cap with a differential of \$0.

**Taxable Value (2012 Final)**

District Description	Tax Rate	Assessed Value	Assessed Taxes	Exemption	Tax Savings	Taxable Value	Taxes
Board Of County Commissioners - GF	6.866500	\$1,575	\$10.81	\$1,575	\$10.81	\$0	\$0.00
Polk County School Board - State	5.244000	\$1,575	\$8.26	\$1,575	\$8.26	\$0	\$0.00
Polk County School Board - Local	2.248000	\$1,575	\$3.54	\$1,575	\$3.54	\$0	\$0.00
City Of Lakeland	4.664400	\$1,575	\$7.35	\$1,575	\$7.35	\$0	\$0.00
South West FLA Water Mgmt Dist	0.392800	\$1,575	\$0.62	\$1,575	\$0.62	\$0	\$0.00
Lakeland Mass Transit	0.500000	\$1,575	\$0.79	\$1,575	\$0.79	\$0	\$0.00
Board Of County Commissioners - DS	0.000000	\$1,575	\$0.00	\$1,575	\$0.00	\$0	\$0.00
		<b>Assessed Taxes:</b>	<b>\$31.37</b>	<b>Tax Savings:</b>	<b>\$31.37</b>	<b>Total Taxes:</b>	<b>\$0.00</b>

**Taxes**

Desc	Last Year	2012 Final
Taxing District	LAKELAND/SWFWMD/LKLD MASS (Code: 91510)	LAKELAND/SWFWMD/LKLD MASS (Code: 91510)
Millage Rate	19.5937	19.9157
Ad Valorem Assessments	\$0.00	\$0.00
Non-Ad Valorem Assessments	\$0.00	\$0.00
<b>Total Taxes</b>	<b>\$0.00</b>	<b>\$0.00</b>

Your final tax bill may contain Non-Ad Valorem assessments which may not be reflected on this page, such as assessments for roads, drainage, garbage, fire, lighting, water, sewer, or other governmental services and facilities which may be levied by your county, city or any other special district. [Visit the Polk County Tax Collector's site for Tax Bill information related to this account.](#) Use the [Property Tax Estimator](#) to estimate taxes for this account.

**Prior Year Final Values**

**2011**

Land Value	\$1,575.00
Building Value	\$0.00
Misc. Items Value	\$0.00
Total Just Value (Market)	\$1,575.00
SOH Deferred Val	\$0.00
Assessed Value	\$1,575.00
Exempt Value	\$1,575.00
Taxable Value	\$0.00

**2010**

Land Value	\$1,575.00
------------	------------

Building Value	\$0.00
Misc. Items Value	\$0.00
Total Just Value (Market)	\$1,575.00
SOH Deferred Val	\$0.00
Assessed Value	\$1,575.00
Exempt Value	\$1,575.00
Taxable Value	\$0.00

**2009**

Land Value	\$1,575.00
Building Value	\$0.00
Misc. Items Value	\$0.00
Total Just Value (Market)	\$1,575.00
SOH Deferred Val	\$0.00
Assessed Value	\$1,575.00
Exempt Value	\$1,575.00
Taxable Value	\$0.00

**2008**

Land Value	\$1,575.00
Building Value	\$0.00
Misc. Items Value	\$0.00
Total Just Value (Market)	\$1,575.00
SOH Deferred Val	\$0.00
Assessed Value	\$1,575.00
Exempt Value	\$1,575.00
Taxable Value	\$0.00

**2007**

Land Value	\$1,575.00
Building Value	\$0.00
Misc. Items Value	\$0.00
Land Classified Value	\$0.00
Total Just Value (Market)	\$1,575.00
SOH Deferred Val	\$0.00
Agriculture Classification	\$0.00
Assessed Value	\$1,575.00
Exempt Value	\$1,575.00
Taxable Value	\$0.00

**DISCLAIMER:**

The Polk County Property Appraiser makes every effort to produce and publish the most current and accurate information possible. The PCPA assumes no responsibility for errors in the information and does not guarantee that the data are free from errors or inaccuracies. Similarly the PCPA assumes no responsibility for the consequences of inappropriate uses or interpretations of the data. No warranties, expressed or implied, are provided for the data herein, its use, or its interpretation. Utilization of the search facility indicates understanding and acceptance of this statement by the user.

Last Updated: Wednesday, June 19, 2013 at 2:34:51 AM

Pictures of Tenoroc FMA parcels along the south side of SR 659, east of SR 33



View looking at Parcel 24-27-21-000000-021020 along the south side of SR 659



View looking at Parcel 24-27-28-000000-011050 along the south side of SR 659

**A CONCEPTUAL MANAGEMENT PLAN  
FOR THE  
TENOROC FISH MANAGEMENT AREA**

**(Polk County)**

**Owned by the State of Florida**

**with**

**Fish and Wildlife Conservation Commission, Primary Managing Agency  
Division of Forestry, Cooperating Agency**

**Prepared by:**

**Division of Freshwater Fisheries  
Bureau of Fisheries Services  
Florida Fish and Wildlife Conservation Commission**

**March 2002**



**Approved:  
Edwin J. Moyer, Director  
Division of Freshwater Fisheries**



DO NOT WRITE BELOW THIS LINE (FOR DIVISION OF STATE LANDS ONLY)

ARC Approval Date: \_\_\_\_\_ BTIITF Approval Date:

Comments:

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**A CONCEPTUAL MANAGEMENT PLAN  
FOR THE  
TENOROC FISH MANAGEMENT AREA**

**I. GENERAL INFORMATION AND USAGE OF THE PROPERTY**

A. Common name of the property: Tenoroc Fish Management Area (Tenoroc)

1. Brief History: Before extensive phosphate mining occurred between 1940 and 1978, the eastern portion of Tenoroc was part of a large wetland system at the headwaters of Saddle Creek, the upper-most tributary of Peace River. Natural drainage from this wetland system contributed to Saddle Creek stream flow and supplemented downstream flushing through the now degraded Lake Hancock, the largest lake in the Peace River basin. The western portion of Tenoroc was part of a wetland system that was associated with Lake Parker. Lake Parker also contributed stream flow to Saddle Creek and Lake Hancock.

Phosphate mining operations, which primarily took place before 1970, significantly disrupted natural drainage patterns by eliminating original wetlands and impounding water in retention areas. Currently, on the eastern portion of Tenoroc, a system of ditches carries water through and around mined areas, including a series of water filled pits (mine-created lakes) that remained after strip mining activities terminated. The western portion of Tenoroc consists of a series of landlocked pit/lakes that over-flow water to Lake Parker and Lake Crago during high water periods.

Tenoroc currently exists as a mostly disturbed site, consisting of lakes, phosphatic clay settling areas, and sand tailing areas that resulted from mining and reclamation activities. Only 17% of Tenoroc (1,268 acres) is classified as unmined/undisturbed (Figure 1).

All mined areas of Tenoroc were either reclaimed by the original mine company owner or were deemed eligible for state-funded reclamation (Nonmandatory Reclamation Program). Approximately 4,000 acres have been reclaimed to various landforms. Generally, these previous reclamation activities were conducted without a systematic approach and without consideration of fisheries and wildlife habitat optimization, future recreational uses and drainage patterns.

The original lease agreement with the Board of Trustees of the Internal Improvement Trust Fund for the initial donated land tract was co-signed by the Division of Recreation and Parks (DRP) of the former Florida Department of Natural Resources (DNR - now part of the Florida Department of Environmental Protection -DEP); the Florida Fish and Wildlife Conservation Commission (FWC); and the Department of Agriculture and Consumer Services, Division of Forestry (DOF) (Lease Number 3570, 06/24/84). At that time, DRP was designated as the primary managing agency.

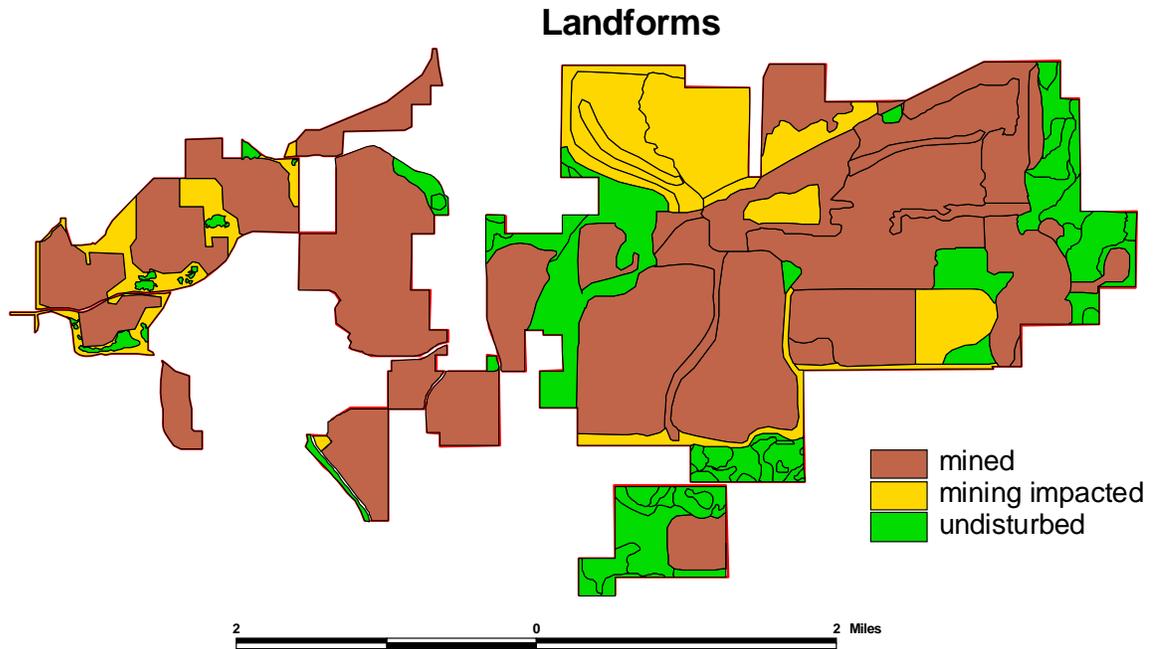


Figure 1. Landforms found at Tenoroc Fish Management Area.

Due to 1992 budgetary cutbacks, DRP obtained permission to terminate its management activities and responsibilities at Tenoroc. Subsequently, both the FWC and DOF agreed to a management release by DRP. Temporary authority was given to both agencies to continue management of the property until a new lease was issued. The new lease from the Board of Trustees designating the FWC as "Lead Agency" and DOF as "Cooperating Agency" was signed 23 May 1993 for fifty (50) years (Lease Number 3977). This lease was modified in 1998 and 2000 to include the additional land purchases in those years.

2. Land Acquisition Program: The original Tenoroc tract was donated to the State of Florida by Borden, Inc. in September 1982. Two additional land tracts were acquired through purchase: 341 acres with funds from the Non-Mandatory Reclamation Trust Fund and Preservation 2000 in 1998, and 968 acres through the Preservation 2000 Inholdings and Additions program in 2000. The purpose of these acquisitions is for the conservation and protection of natural and historical resources and for resource-based public outdoor recreation compatible with the conservation and protection of these public lands.
3. General Location: Tenoroc occupies 7,367 acres in Polk County, northeast of Lakeland (Figure 2). It is south of Interstate 4 between Tampa and Orlando, bisected by SR 659. Five other significant state resources are located in proximity to Tenoroc (Figure 3).

# Tenoroc Fish Management Area

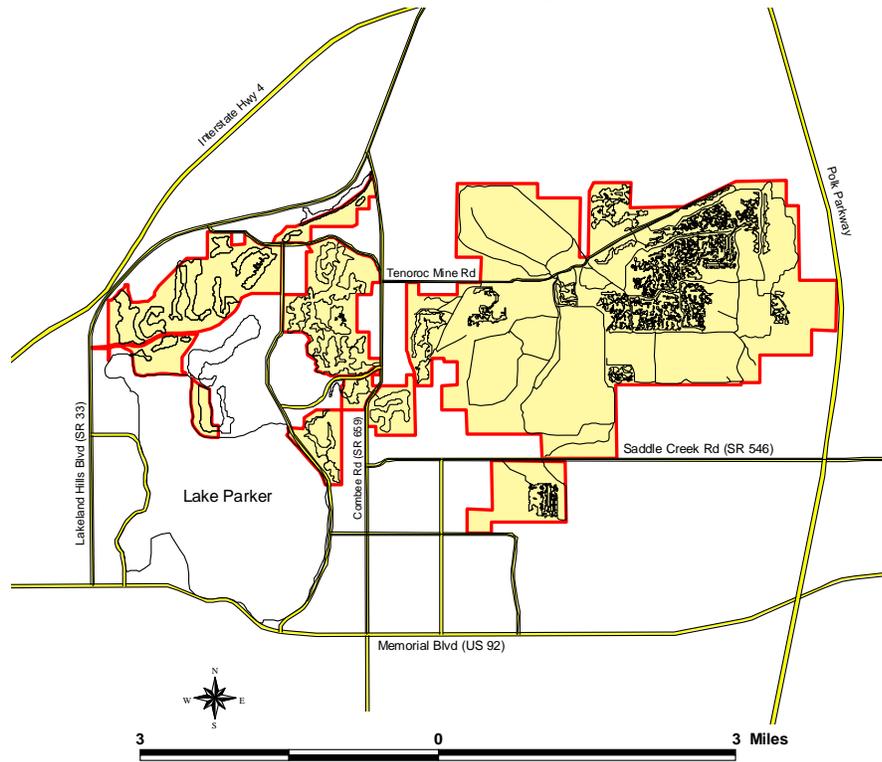


Figure 2. General location of Tenoroc Fish Management Area.

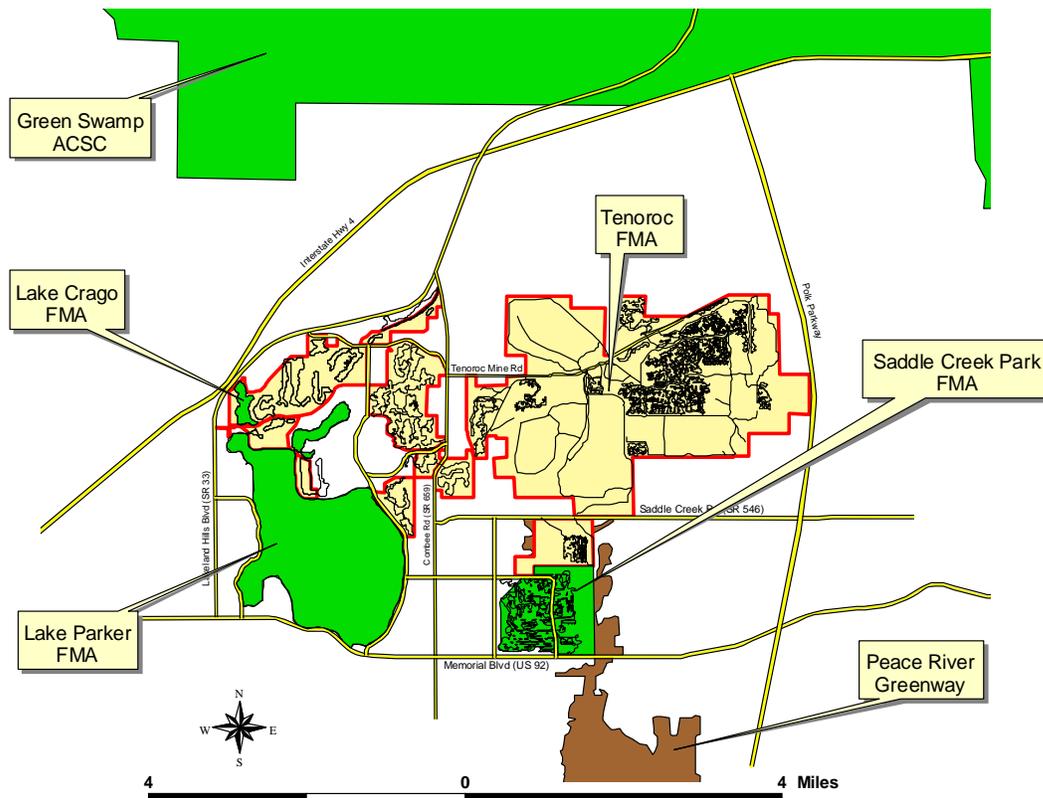


Figure 3. Adjacent state resources to Tenoroc Fish Management Area.

Immediately west and adjacent to Tenoroc is Lake Parker, a 2,272-acre lake and Lake Crago, a 53-acre pit/lake, both designated as FWC Fish Management Areas (FMA). Immediately south and also adjacent to Tenoroc is the 321-acre FWC-managed Saddle Creek FMA. Eight miles north of Tenoroc lies the southern boundary of the Green Swamp, a designated Area of Critical State Concern. Approximately 20 miles south lies Peace River, a significant habitat and hydrologic system in West Central Florida. Tenoroc is part of the Saddle Creek system, the uppermost tributary to Peace River.

4. Legal Description: A legal description of the Tenoroc property is contained in Appendix I.
5. Legislative or Executive Directives: There are no known legislative or executive directives that constrain the use of Tenoroc property. The managing agencies' intent is to manage the area as a public recreational facility with primary emphasis on recreational fishing. The FWC will maintain or improve the existing recreational opportunities at Tenoroc. Working closely with DOF and DEP Bureau of Mine Reclamation, FWC will seek to re-establish at least a portion of the habitat lost through mining activities. There are no known development constraints that might affect management options; however, there are known adjacent land uses that could conflict significantly with the recreational and resource protection that might be advocated by FWC.
6. Degree of Title Interests Held by the Trustees: The Trustees are the sole titleholder for all lands included within the managed area covered by this plan.
7. Public Involvement and Local Government Participation: The FWC conducted a Management Advisory Group (MAG) meeting in Lakeland, Florida on March 29, 2000 to obtain input from the public and private stakeholders regarding management of Tenoroc. Results of this meeting were used by FWC in the development of goals, objectives and strategies for this conceptual management plan. A summary of issues and opportunities raised by the MAG, as well as a listing of participants, is included as Appendix II. In addition, a public hearing, as required by 259.032(10), F.S., was held on December 14, 2000. The report of that hearing is also contained in Appendix II.

## **II. NATURAL RESOURCES**

- A. Aquatic Preserve or Area of Critical State Concern: Tenoroc is not designated as an Aquatic Preserve or an Area of Critical State Concern. The property is not being considered for such designation.
- B. Locations and descriptions of the property's known and reasonably identifiable renewable and non-renewable natural resources:
  1. Soils: Due to extensive mining operations, mining by-product distribution and reclamation activities, soil types present on Tenoroc are highly dissimilar to original conditions. An applicable portion of the 1988 Soil Conservation Service (now the Natural Resources Conservation Service) Polk County Soil Survey (including soil



Unreclaimed lakes exhibit the original water-filled cuts, typical of the strip mining process. High-ridged peninsulas and islands of un-graded overburden spoil exist within these lakes, while the cast overburden spoils around the perimeters have been shaped into containment dikes. Complete upland topography (two-foot contours) and lake contour maps (one-foot contours) for most lakes have been developed.

2. Archeological and Historical Resources: The Florida Department of State, Division of Historical Resources (DHR) review of the Florida Master Site File indicates four archaeological sites recorded with Tenoroc. All four sites have been previously evaluated and determined to be ineligible for listing in the National Register of Historic Places. Results of DHR 's review and a copy of Mangement Procedures for Archeological and Historical Sites and Properties on State-Owned or Controlled Lands are provided in Appendix IV.
3. Water Resources: All water resources at Tenoroc are classified as Class III waters (Figure 5). There are 43 water bodies comprising 1,220 acres or approximately 17% of the property at Tenoroc. The property has 794 acres of reclaimed lakes and 426 acres of unreclaimed lakes. None of the water resources at Tenoroc are designated as Outstanding Florida Waters.

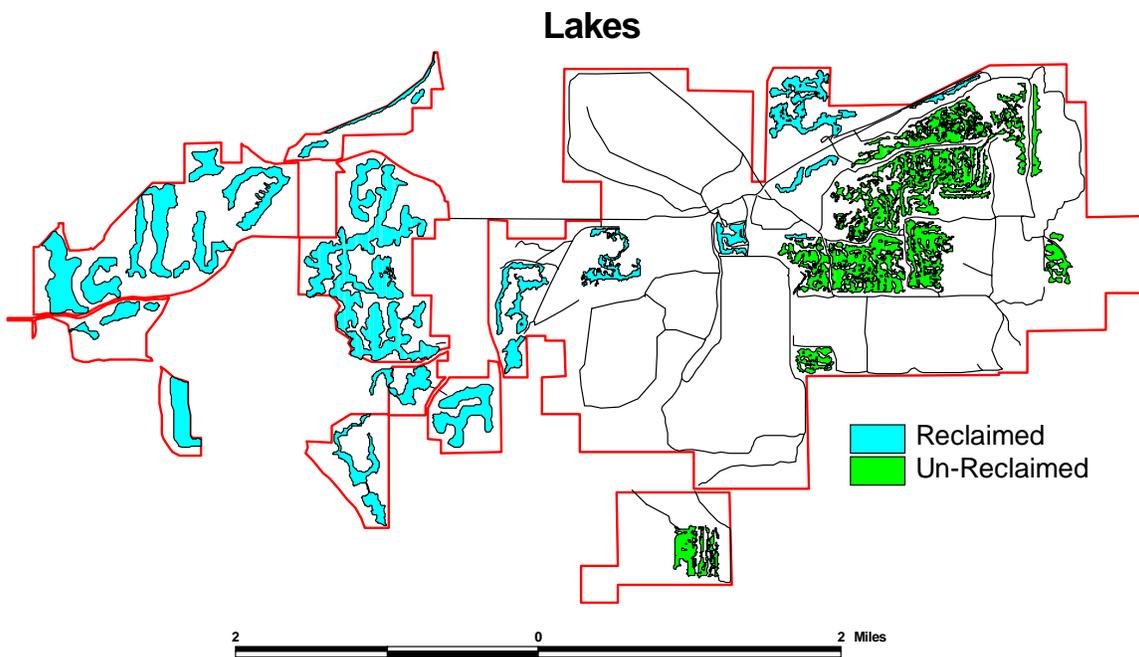


Figure 5. Reclaimed and un-reclaimed lakes located on Tenoroc Fish Management Area.

4. Fish, Wildlife and their Habitat:

- a. Wildlife: A wildlife species survey was completed at Tenoroc by Dyer, Riddle, Mills and Precourt, Inc. in 1990. A comprehensive list of wildlife species observed to date at Tenoroc, including those listed in the 1990 Tenoroc Conceptual Master Plan, are listed in Appendix V.
- b. Fish: Tenoroc's fishery resources are abundant. At least 29 manageable mine-created lakes ranging in size from two to 227 acres (total lake area is approximately 1,220 acres) occur on the property. Fourteen of these lakes are currently opened to public fishing, of which ten have concrete boat launching ramps, and two have primitive launching areas. (Lakes may be periodically closed to fishing due to access problems that jeopardize public safety or due to environmental problems or fishery management needs.) Bank fishing opportunities are available on five lakes currently used by the public.

Management of Tenoroc fisheries involves the use of restrictive harvest regulations on game fish species and control of angler fishing effort. Past experimental regulations (including minimum lengths, protected length ranges, reduced bag limits, gear restrictions, trophy bass restrictions and catch-and-release provisions) have resulted in current area regulations that are effective in preventing over-harvest of game fish and in perpetuating quality fishing opportunities (see 68A-20.005 (4) (j), F.A.C., for regulations).

(1) Game fish: The following game fish species are of primary importance to the public fishing program at Tenoroc:

<u>Common Name</u>	<u>Scientific Name</u>
a. Largemouth bass	<i>Micropterus salmoides</i>
b. Black crappie	<i>Pomoxis nigromaculatus</i>
c. Bluegill	<i>Lepomis macrochirus</i>
d. Redear sunfish	<i>Lepomis microlophus</i>
e. Warmouth	<i>Lepomis gulosus</i>
f. White catfish	<i>Ictalurus catus</i>
g. Channel catfish*	<i>Ictalurus punctatus</i>
h. Brown bullhead	<i>Ameiurus nebulosus</i>
i. Yellow bullhead	<i>Ameiurus natalis</i>
j. Sunshine bass*	<i>Morone chrysops</i> x <i>M. saxatilis</i>

\*Introduced game fish

(2) Forage species and other fishes: The following fish species are also known to occur at Tenoroc:

<u>Common Name</u>	<u>Scientific Name</u>
a. Threadfin shad	<i>Dorosoma petenense</i>

b. Gizzard shad	<i>Dorosoma cepedianum</i>
c. Golden shiner	<i>Notemigonus crysoleucas</i>
d. Taillight shiner	<i>Notropis maculatus</i>
e. Lake chubsucker	<i>Erimyzon sucetta</i>
f. Seminole killifish	<i>Fundulus seminolis</i>
g. Golden topminnow	<i>Fundulus chrysotus</i>
h. Bluefin killifish	<i>Lucania goodei</i>
i. Least killifish	<i>Heterandria formosa</i>
j. Flagfish	<i>Jordanella floridae</i>
k. Bluespotted sunfish	<i>Enneacanthus gloriosus</i>
l. Dollar sunfish	<i>Lepomis marginatus</i>
m. Sailfin molly	<i>Poecilia latipinna</i>
n. Eastern mosquitofish	<i>Gambusia holbrooki</i>
o. Everglades pygmy sunfish	<i>Elassoma evergladei</i>
p. Brook silverside	<i>Labidesthes sicculus</i>
q. Swamp darter	<i>Etheostoma fusiforme</i>
r. American eel	<i>Anguilla rostrata</i>
s. Florida gar	<i>Lepisosteus platyrhincus</i>
t. Bowfin	<i>Amia calva</i>
u. Walking catfish*	<i>Clarias batrachus</i>
v. Triploid grass carp**	<i>Ctenopharyngodon idella</i>
w. Armored catfish*	<i>Liposarcus multiradiatus</i>

\*Established exotic

\*\*Introduced for vegetation control

(3) Commercial fish species: An additional species, the blue tilapia (*Oreochromis aurea*), is found in great abundance at Tenoroc. This exotic fish is well established in central Florida and is of considerable commercial significance. Currently, the Division of Freshwater Fisheries (DFF) has a sub-lease for the commercial harvest of this non-native fish at Tenoroc.

Common Name

Blue tilapia

Scientific Name

*Oreochromis aurea*\*

\*Established exotic

c. Vegetation: Tenoroc vegetation (Figure 6) consists primarily of opportunistic native species that have invaded disturbed areas, as well as exotic plant species that have become well established in central Florida. Several undisturbed areas exhibit native vegetation types (i.e., bay swamp, cypress, cypress/hardwood, hardwood, hardwood/conifer, palmetto, pine flatwoods, and xeric oak) associated with their particular soil and fire regime. Attempts have been made to re-introduce a variety of native species on reclaimed sites areas with various degrees of success.

Generally lower survival rates of plantings occurred on arid sand tailings and reworked overburden sites, while plant survival in wetter areas was fair to good.

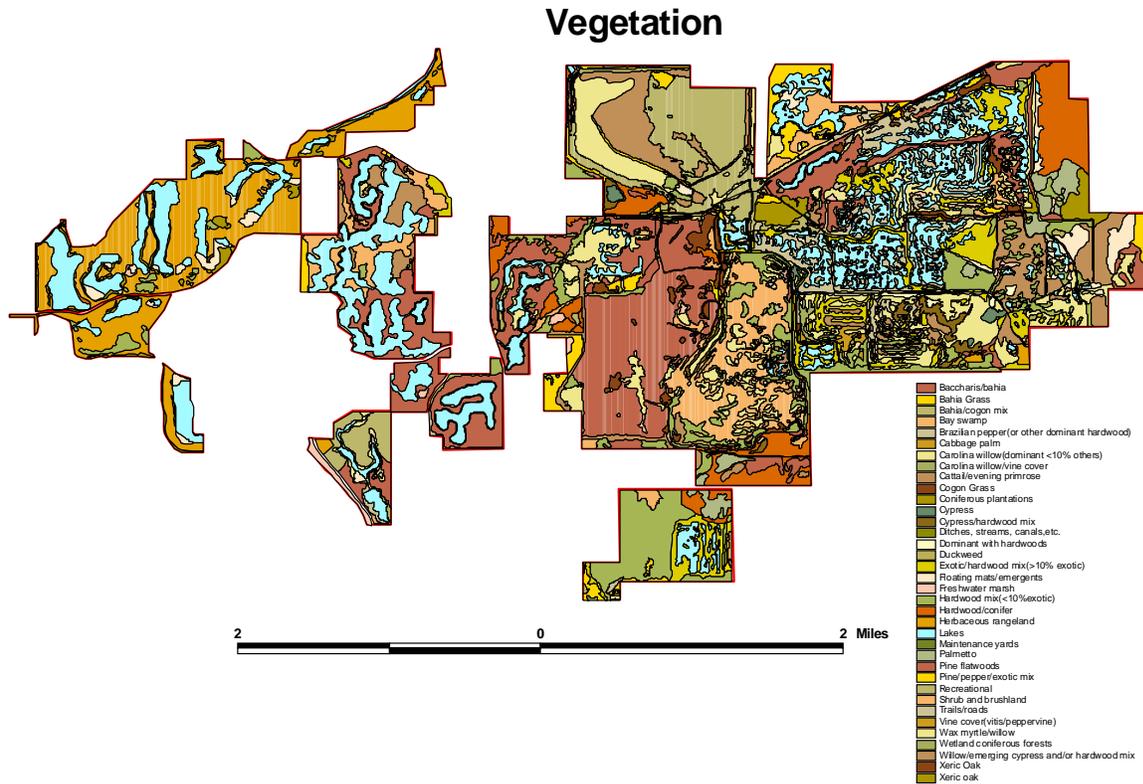


Figure 6. Vegetation communities at Tenoroc Fish Management Area.

- d. Climate: Average temperature in this part of Florida ranges from 90<sup>0</sup>F in the summer to 58<sup>0</sup>F in the winter. Winter freezes are infrequent. Rainfall occurs most often during summer thunderstorms, but also occurs regularly during late fall and winter in association with the passage of cold fronts. Annual precipitation averages 49.95 inches.
5. State and Federally Listed Endangered or Threatened Species and their Habitat: Twelve wildlife species recorded as being observed at Tenoroc are state listed as either Endangered, Threatened or Species of Special Concern (Appendix V). Of these, four species are federally listed as either Endangered, Threatened, or Threatened Due to Similarity of Appearance.

The latest plant survey was conducted in 1990 as part of the Tenoroc State Recreation Area Conceptual Master Plan and is provided in Appendix VI. None of the plants surveyed in this report were found on Florida Natural Areas Inventory (FNAI)

Species and Natural Community Summary for Polk County (Appendix VII). Recently, one FNAI listed vascular plant species, *Pteroglossapis cristata* (wild coco), was found on Tenoroc FMA. Wild coco is not federally listed but is state listed as Threatened.

No listed non-vascular plant, fish or invertebrate species are known to occur within Tenoroc.

6. Beaches and Dunes: Tenoroc is inland and does not contain beaches or dunes.
7. Swamps, Marshes and Other Wetlands: Approximately 1,402 acres of the property mapped at Tenoroc are designated as wetlands (Figure 7). These consist of both natural and man-made wetlands.

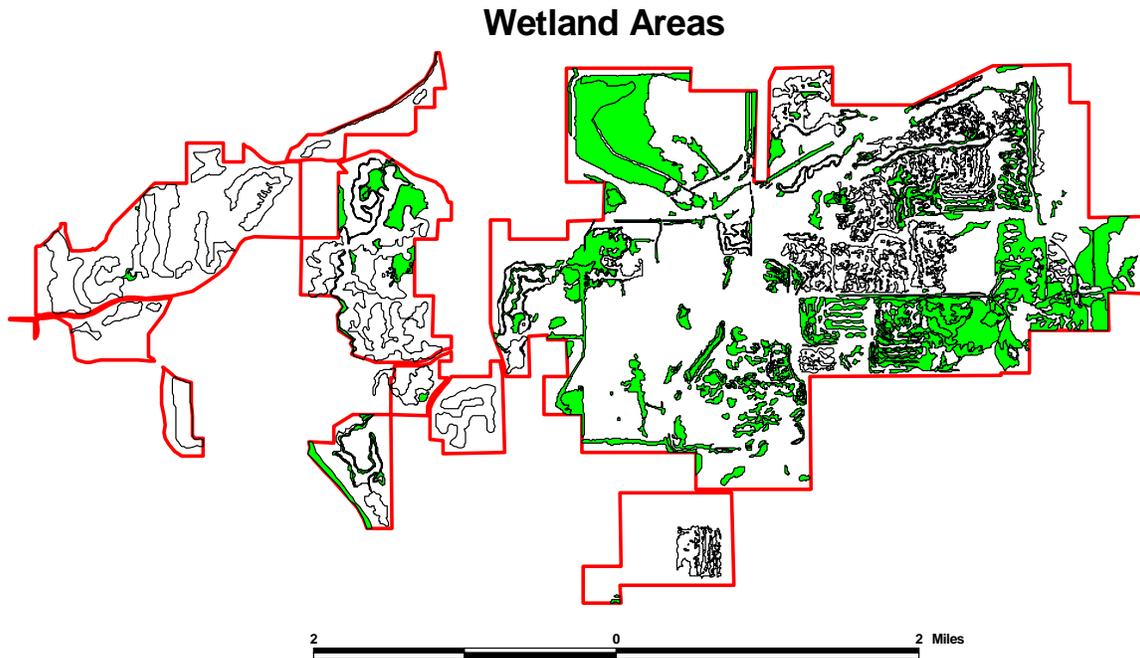


Figure 7. Mapped natural and man-made wetlands at Tenoroc Fish Management Area.

8. Mineral Resources: Phosphate rock was the only significant mineral resource at Tenoroc, and most has already been recovered; however, there are residual phosphate values in the sand tailings (phosphate feed) that may be recoverable with modern technology. The value is undetermined at this time and would require an extensive study. There are also residual phosphate values in the waste clay deposits that may some day be recoverable with new technology. Under current economic conditions, residual phosphate in waste clay deposits are not considered an asset.
9. Unique Natural Features: Tenoroc does not contain any unique natural features; however, DOF conducted a reconnaissance of the timber stands at Tenoroc in 1993. Four relatively small pine timber stands were identified; however, it was concluded that none have commercial value that would warrant harvesting. This conclusion is

the same today. The DOF also identified significant acreage at Tenoroc in need of reforestation and offered their assistance with any future reforestation programs.

10. Outstanding Native Landscapes: Tenoroc is an integral part of a wildlife habitat corridor extending along Peace River from the Green Swamp to Charlotte Harbor. The corridor is part of Florida’s State-Wide Greenways system and is recognized in local government comprehensive land use plans.

- C. FNAI Listed Resources: Figure 8 shows locations of FNAI element occurrences as well as the FWC wildlife occurrence from the 2001 databases of the respective agencies. Appendix VIII indicates FNAI permission for FWC to access their database for the purpose of displaying known listed plant and animal resources.

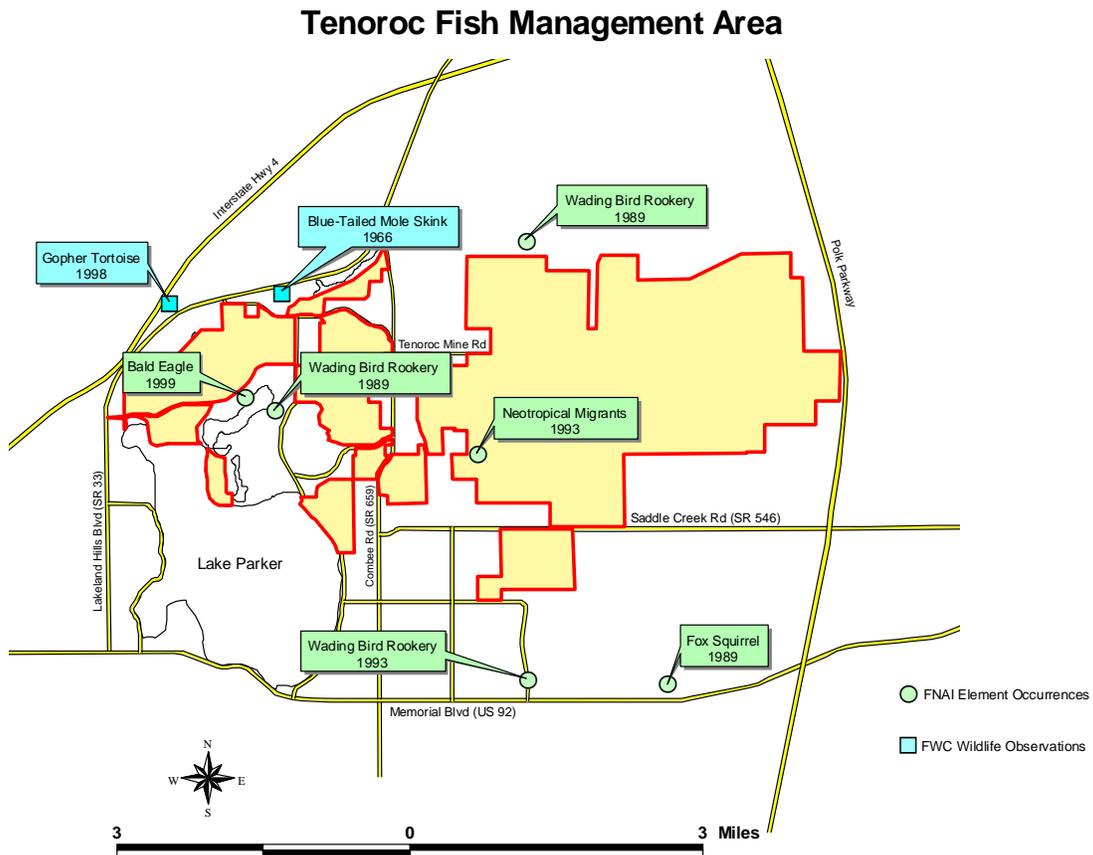


Figure 8. Element occurrences map for Tenoroc Fish Management Area.

### III. USAGE OF THE PROPERTY

- A. Past Uses: Phosphate mining was the primary past use of the property. Mining operations significantly disrupted natural drainage patterns by eliminating former wetlands and

impounding water in retention areas. Currently, a system of ditches carries water through and around the property's mined areas, providing little of the flow attenuation and treatment capacity afforded by the original wetlands.

Tenoroc currently exists as a mostly disturbed site, with mine-pit lakes, phosphatic clay settling areas and hills of sand tailings. Relatively little of the area remains in a natural state.

B. Purpose of the Property: It is the policy of FWC (as expressed in the Agency Long Range Program Plan) to provide, on lands it owns or manages, a diversity of fish and wildlife-oriented recreational opportunities that do not adversely impact the long-term well-being of animal populations or habitats. The primary purpose of Tenoroc is to provide nature-based recreation with emphasis on public fishing. Since 1993, 146,391 visitors have enjoyed the recreational opportunities offered by Tenoroc. Another important purpose has been to reestablish upland habitat and improve drainage that was impacted by mining. A cooperative project with DEP's Bureau of Mine Reclamation has been underway since 1995 to restore the Upper Saddle Creek Basin at Tenoroc.

1. Current Public Use: Recreational fishing accounts for approximately 86% of annual public use at Tenoroc. Over the past eight years, anglers have made 125,217 fishing trips to Tenoroc lakes with a total fishing effort of 518,030 hours. During 2000-01, DFF estimated that anglers made 16,069 trips to Tenoroc lakes, fishing an estimated 60,783 hours. Typically, largemouth bass fishing represents from 65% to 85% of the total effort. Fishing is allowed Friday through Monday with angler quotas in place on all lakes.

Other recreational uses at Tenoroc include hiking, horseback riding, bird watching, picnicking and biking. A six-mile section of the Florida Trail is routed through Tenoroc and maintained with help from the Florida Trails Association. Several local riding clubs use the property's 20 miles of equestrian trails. Bird watchers, including the Ridge Audubon Society that compiles annual bird counts, visit the area regularly. In addition, the Picnic Lake and Derby Lake recreational facilities are available to the public for FWC-sanctioned fishing derbies, as well as other family or corporate gatherings.

The FWC has constructed a major regional shooting sports facility at Tenoroc. Located between two major metropolitan areas (Tampa and Orlando), the geographical situation is ideal. The facility includes rifle, pistol and air gun ranges, trap/skeet and sporting clays stations, and ground level, elevated and 3-D archery ranges.

Limited public hunting opportunities for dove, alligator and feral hogs have been offered on Tenoroc property. These hunts are developed and managed by FWC, Division of Wildlife (DOW).

Tenoroc also provides unique educational opportunities. Various schools within the Polk County School District and groups associated with the Florida Institute of Phosphate Research conduct programs ranging from nature study to environmental

awareness. The DFF offers fishing education programs to promote the sport of fishing and conservation ethics.

C. Designated Use of the Property: Tenoroc is managed under a multi-use strategy to: (1) provide high-quality recreational opportunities with special emphasis on public fishing; (2) improve water quality on or leaving Tenoroc; (3) restore functional hydro-periods and drainage; and (4) provide natural resource-based education, and 5) enhance native plant communities. DFF has developed goals and objectives for Tenoroc in order to meet specific intentions as guided by FWC's Long Range Program Plan, for FY2001-02 through 2005-06 (<http://fwcnet.state.fl.us/lrpp/default.htm>).

1. Resource Management Goals and Objectives: The following goals and objectives have been developed for the management of Tenoroc. Many help accomplish agency objectives as expressed in the Agency Long Range Program Plan.

**Goal 1: PROVIDE HIGH QUALITY FISHING OPPORTUNITIES.**

Objective 1: Maintain the fishing satisfaction level of area anglers at or above 75%. (**Ongoing**)

Objective 2: Maintain angler catch data to document fishing success rates and assess results of management strategies. (**Ongoing**)

Objective 3: Maintain an annual average catch rate of 0.5 fish per hour (success not harvest) for largemouth bass. (**Ongoing**)

Objective 4: Maintain an annual average catch rate of 1.75 fish per hour (success not harvest) for sunfish. (**Ongoing**)

Objective 5: Maintain an annual average catch rate of 1.25 fish per hour (success not harvest) for black crappie. (**Ongoing**)

Objective 6: Maintain an updated database for all managed fisheries. (**Ongoing**)

Objective 7: Develop general access, boat ramps and bank fishing areas in # additional lakes. (**By 2007**)

Objective 8: Provide additional access facilities to increase utilization by physically-challenged anglers, youth and senior citizens on two lakes. (**By 2003**)

Objective 9: Develop educational materials including displays, interpretive kiosks and informational handouts for the acquired property. (**By 2007**)

Objective 10: Provide fishing clinics for youth and other age groups to promote fishing and conservation ethics. (**Ongoing**)

Objective 11: Maintain the commercial harvest program for blue tilapia.  
(Ongoing)

**Goal 2: PROVIDE OTHER HIGH QUALITY RECREATIONAL OPPORTUNITIES.**

Objective 1: Maintain the existing non-consumptive recreational activities (e.g., hiking, birdwatching, picnicking, horseback riding) at Tenoroc.  
(Ongoing)

Objective 2: Maintain current hunting opportunities at Tenoroc. (Ongoing)

Objective 3: Create additional non-consumptive recreational activities. (By 2007)

**Goal 3: REPAIR, RESTORE AND MANAGE EXISTING VEGETATION AND DRAINAGE FEATURES AS NATURAL ENVIRONMENTAL SYSTEMS.**

Objective 1: Un-impound clay settling areas and enhance wetland treatment of surface waters originating on or passing through Tenoroc. (By 2010)

Objective 2: Complete an on-site reforestation plan. (By 2015)

Objective 3: Reduce upland exotic plant species coverage by 75% through on-site reforestation or native plant community restoration. (By 2015)

Objective 4: Manage existing stands of native vegetation through prescribed burning or drainage enhancement programs appropriate for each distinct community type. (Ongoing)

**Goal 4: PROMOTE ENVIRONMENTAL EDUCATION PROGRAMS.**

Objective 1: Maintain the current environmental education programs with the Polk County School District and the Florida Institute of Phosphate Research.  
(Ongoing)

Objective 2: Establish a multi-discipline environmental education center. (By 2005)

**Goal 5: PROTECT FISH AND WILDLIFE RESOURCES THROUGH LAW ENFORCEMENT PATROL.**

Objective 1: Maintain compliance with state laws and FWC regulations.  
(Ongoing)

D. Analysis of Multiple Use Potential: The following multiple use actions or activities have been considered for Tenoroc. Approved uses are deemed to be compatible with the

purposes for state acquisition with the Conceptual State Lands Management Plan and with the FWC's Agency Long Range Program Plan. Rejected means the item is not compatible with one or more of these forms of guidance.

	<b>Approved</b>	<b>Rejected</b>
<input type="checkbox"/> Protection of endangered and threatened species	Y	
<input type="checkbox"/> Ecosystem restoration and maintenance	Y	
<input type="checkbox"/> Soil and water conservation	Y	
<input type="checkbox"/> Fishing	Y	
<input type="checkbox"/> Wildlife observation	Y	
<input type="checkbox"/> Hiking	Y	
<input type="checkbox"/> Bicycling	Y	
<input type="checkbox"/> Horseback riding	Y	
<input type="checkbox"/> Hunting	Y	
<input type="checkbox"/> Primitive camping		Y
<input type="checkbox"/> Timber harvest		Y
<input type="checkbox"/> Cattle grazing	Y	
<input type="checkbox"/> Apiaries	Y	
<input type="checkbox"/> Linear facilities	Y	
<input type="checkbox"/> Off road vehicle use		Y
<input type="checkbox"/> Environmental education	Y	
<input type="checkbox"/> Citrus or other agriculture		Y
<input type="checkbox"/> Preservation of archeological and historical sites	Y	
<input type="checkbox"/> Training center and residential area for developmentally-disadvantaged		Y
<input type="checkbox"/> (Other uses as determined on an individual basis)	Y	

E. Analysis of Potential for Contracting Management Activities: The following management and restoration activities have been considered for outsourcing to private contractors. Items selected as approved are those which DFF either does not have in-house expertise to accomplish, or which can be done at less cost by an outside provider. Items selected as rejected are those that: 1) are not applicable for the area, 2) DFF has in-house expertise, 3) DFF can accomplish through agreements with other FWC Divisions or state agencies, and/or 4) DFF has found it can accomplish at less expense than through contracting. Conditional items are those that cannot be accomplished by DFF, but may be

accomplished by other FWC Divisions, state agencies or by competent and cost effective outside providers:

	<b>Approved</b>	<b>Conditional</b>	<b>Rejected</b>
<input type="checkbox"/> Habitat restoration		Y	
<input type="checkbox"/> Prescribed burning			Y
<input type="checkbox"/> Exotic species control		Y	
<input type="checkbox"/> Vegetation inventories	Y		
<input type="checkbox"/> Fisheries management and educational programs			Y
<input type="checkbox"/> Wildlife management and surveys		Y	
<input type="checkbox"/> Nature-based educational facilities development	Y		
<input type="checkbox"/> Law enforcement		Y	
<input type="checkbox"/> Public contact			Y
<input type="checkbox"/> General area maintenance			Y
<input type="checkbox"/> Fish access facilities and road maintenance			Y
<input type="checkbox"/> Road development and construction		Y	
<input type="checkbox"/> New fence building	Y		
<input type="checkbox"/> Property survey	Y		

F. Properties that Should Be Acquired: Six parcels of land bordering Tenoroc should be acquired (Figure 9). The GAW property is approximately seven acres of mined land currently being used as a storage and office site for a road construction company. It is a Tenoroc boundary incursion. Purchase of this property would create a clearer boundary, enhance protection of water resources and prevent any additional adverse development.

## Tenoroc Fish Management Area

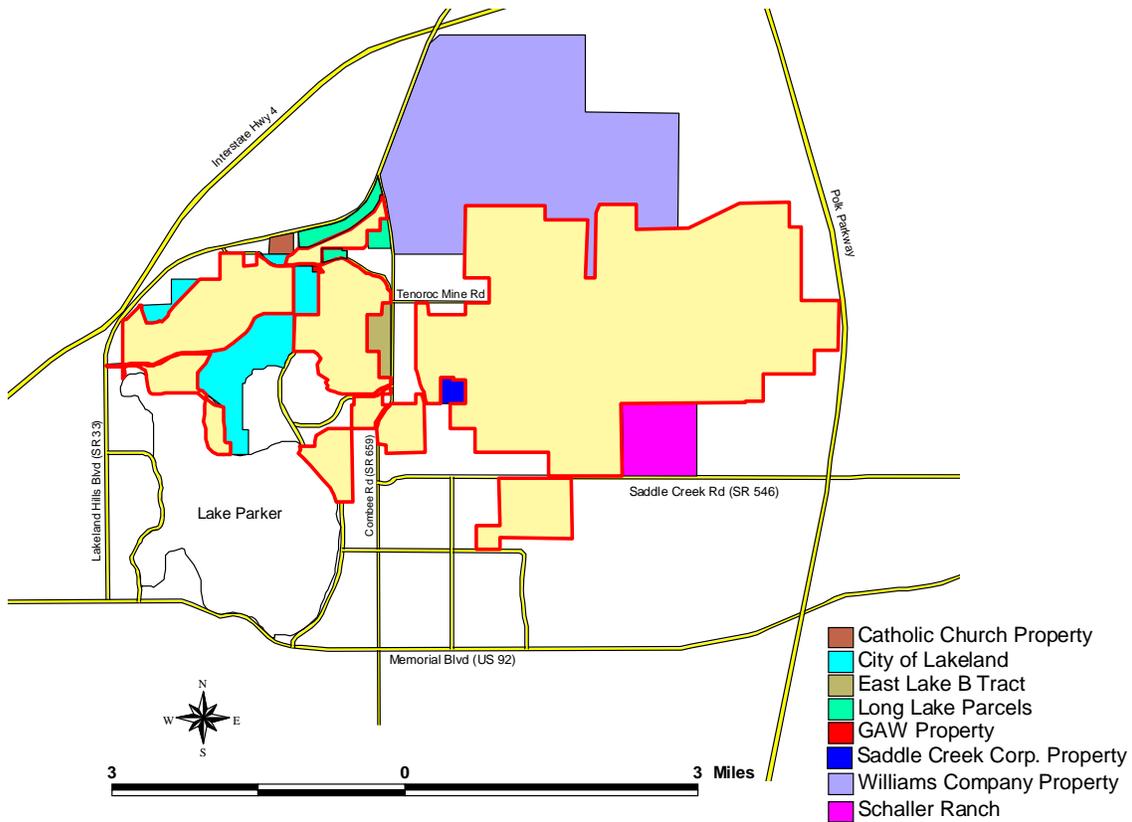


Figure 9. Proposed properties for acquisition, Tenoroc Fish Management Area.

The City of Lakeland (Lakeland) owns approximately 532 acres of land adjacent to the newly acquired Bridgewater tract. The designated uses of these properties include conservation areas, buffer zones for established utility facilities, an access road and a high intensity public park (e.g., baseball and soccer fields, gymnasium, public pool, etc.).

Drainage of this property is south and west to lakes Parker and Crago, both established FMAs. Currently, FWC and Lakeland are evaluating the possibility of a land exchange for much of the property designated for conservation; however, portions of the access road and utilities buffer areas, as well as the high intensity public park, are not included. Acquisition of all this property would create a clearer boundary, provide additional water quality protection for lakes Parker and Crago, prevent development and expand the nature-based recreational opportunities (e.g., recreational fishing, hiking, wildlife observation, horseback riding, picnicking, etc.).

The Catholic Church owns approximately 30 acres of scrub habitat adjacent to 15 acres of scrub habitat owned by Lakeland. Both properties are adjacent to Tenoroc. As mentioned

above, FWC and Lakeland are looking into a possible land exchange involving the City-owned scrub, designated for conservation. Meanwhile, the larger and more pristine Catholic Church scrub is available for purchase. Acquisition of the Church property would prevent development of this unique and endangered habitat, and expand the educational opportunities of Tenoroc.

The Saddle Creek Corporation owns a 42-acre property totally surrounded by Tenoroc except for a narrow 500' + corridor to the south. The property is unmined pastureland with wetlands that extend into Tenoroc. Acquisition of this property would secure protection of these wetlands and create a clearer boundary.

The Williams Acquisition Holding Company (WAHC) owns 2,964 acres of reclaimed mined land immediately north and west of Tenoroc's original donated property. The 300-acre Southwest tract adjacent to the northwest boundary of Tenoroc's original tract, contains four reclaimed lakes and a portion of the ditch draining through Tenoroc's west side. Immediately across SR 659 is the eastern most boundary of the newly acquired Bridgewater tract. WAHC property adjacent to the northern boundary of Tenoroc extends almost to I-4 and consists of reclaimed elevated clay settling impoundments and most of the remaining western drainage ditch. This Clay pond tract is considered the major water source for the western drain that will supply created wetlands on Tenoroc (as part of the Upper Saddle Creek restoration). Acquisition of this property, or at least critical portions, would ensure an essential and permanent water source for the restoration of the Upper Saddle Creek basin, as well as provide additional public recreational opportunities (e.g., greenway connections, recreational fishing, wildlife observation, hiking, horseback riding).

An east Lake B tract consists of three privately owned parcels, two of which are currently on the market. The tract totals 83 acres and includes three homes and one horse stable/barn. Frontage borders SR 659 (Combee Road). The property drains to the west into Tenoroc's Lake B. The drainage area includes approximately 26 acres of active citrus groves, six acres of wetlands, 23 acres of impacted wet oak hammock and 23 acres of improved pasture. Acquisition of the tract could prevent adverse development (and thus protect water quality to Lake B), provide a clearer boundary and potentially provide additional public recreational opportunities (e.g., wildlife observation, hiking, horseback riding, etc.).

The Long Lake parcels consist of four privately owned tracts (totaling 144 acres), which are currently on the market and zoned for commercial development. The FWC attempted to acquire these properties as part of the Bridgewater purchase in 2000; however, the previous owner declined to include them in the land sale for economic reasons. Each parcel includes valuable road frontage and one encompasses most of Long Lake. All are in improved pasture, although a small portion of the western end of one contains some remnant scrub habitat. Acquisition of the tract would prevent adverse commercial development adjacent to Tenoroc, allow for effective management of Long Lake, create a clearer FMA boundary and provide additional public recreational opportunities (e.g., recreational fishing, wildlife observation, hiking, etc.).

Schaller Ranch is a 365-acre land tract located directly south of Tenoroc. The property is relatively undisturbed, containing approximately 157 acres of forested flood plain lying along Tenoroc's eastern drainage feature. The remaining acreage consists of forested uplands mixed with palmetto. The property contains valuable road frontage on Saddle Creek Road that is subject to development. Acquisition of the tract would prevent adverse commercial development in a valuable wildlife refuge adjacent to Tenoroc, create a clearer FMA boundary, and provide additional public recreational opportunities (e.g., greenway connections, wildlife observation, hiking, horse back riding, etc.).

- G. **Declaration of Surplus Property:** An agreement in principle has been reached with the City of Lakeland to exchange 155 acres of Tenoroc for 255 acres of City property (inholdings or contiguous to Tenoroc). If this exchange is approved by the Board of Trustees of the Internal Improvement Trust Fund, these lands would be declared surplus.

#### **IV. MANAGEMENT ACTIVITIES:**

- A. **Management Responsibilities of Each Agency:** Lease Number 3977 (signed 23 May 1993) designated FWC as the Lead Agency and Florida Department of Agriculture and Consumer Services, Division of Forestry (DOF), as the Cooperating Agency for the original Tenoroc property. This lease was amended on 17 March 1998 to include the 332-acre Saddle Creek tract, and again on 8 November 2000 to include the 968-acre Bridgewater tract. FWC is responsible for operation of Tenoroc as a provision of the lease agreement (and amendments) with the Trustees. DOF is responsible for providing FWC with advice and on-site assistance in implementing a prescribed burning program and any timber planting and harvesting program. DOF also responds to and takes charge of any wildfire.

- B. **Management Needs or Problems:**

1. **Problems and Strategies:**

- a. **Problem:** There have been several requests for alternative uses of Tenoroc. More are expected in the future, primarily from local governments and private entities.

**Strategy:** Each requested alternative use will be carefully evaluated to determine its compatibility with the original intent of the acquired property, state policies, existing uses and management goals and objectives for the area. Incompatible uses will not be included in the Tenoroc CMP as a recommendation to the Trustees.

- b. **Problem:** Tenoroc's upland vegetation consists primarily of opportunistic native species that have invaded disturbed areas, as well as exotic plant species that have become well established. Upland vegetation surveys have indicated over 2,000 acres of invasive exotic vegetation at Tenoroc are in need of control.

**Strategy:** Although DFF does not have funding or staff to control upland exotic plants, efforts will be pursued to control and/or manage nuisance plants through

control programs funded by other state agencies. Staff strongly believes that any exotic control effort should be part of an overall reforestation plan designed for effective long-term management of upland habitats.

- c. Problem: Tenoroc is an old mined site where most original native vegetation has been removed. Past attempts to revegetate reclaimed areas with preferred native species have met various degrees of success. Generally lower survival rates occurred on arid sand tailings and reworked overburden sites, while plant survival in wetter areas was fair to good.

Over 4,500 acres of uplands should be considered for reforestation or revegetation to native plant communities at Tenoroc. At the request of DFF, DOF has developed a reforestation plan (Figure 10) addressing 2,541 acres of the property that are not part of the Upper Saddle Creek restoration project. However, management funding is inadequate to accomplish this partial reforestation.

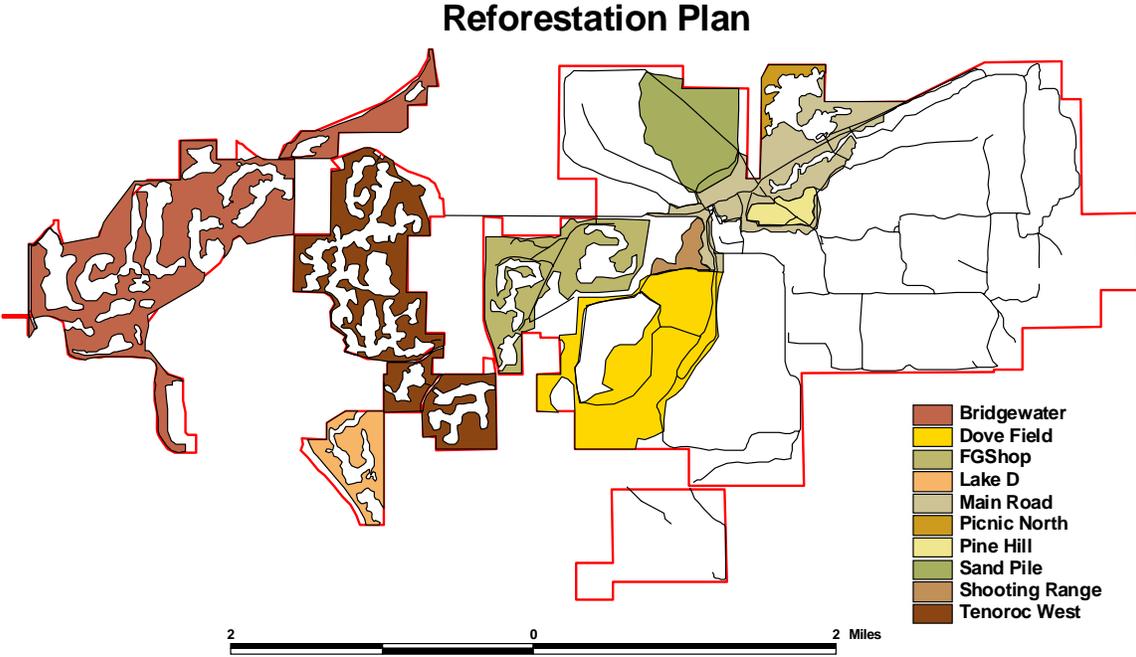


Figure 10. Planning areas for partial reforestation/revegetation plan developed by DOF, Tenoroc Fish Management Area.

Strategy: DFF, which has neither the staff or funding for reforestation or revegetation projects, will continue to coordinate with other state agencies and the private sector to develop long-term programs to re-establish native upland plant communities at Tenoroc.

- d. Problem: The original donated Tenoroc property was not surveyed to determine state property boundaries. As a result, existing fencing may not be located on the true property boundary, resulting in encroachment by either private landowners on

state property or by the state onto private property

Strategy: DFF will request that DEP, Division of State Lands, fund and implement an accurate survey of the original Tenoroc tract.

- e. Problem: Management funding provided to DFF for the Saddle Creek and Bridgewater tracts is inadequate to develop and construct access roads needed to open these areas to public fishing and other recreational use.

Strategy: DFF will request that DOW include road construction needs at Tenoroc within their five- year plan. DFF will also pursue funding of road construction as part of the Division's annual legislative budget request.

- f. Problem: Adjoining lands and in-holdings are at risk of future development that could compromise restoration of the hydrology and natural systems at Tenoroc.

Strategy: Actively pursue acquisition of in-holdings and additions.

Strategy: Continue to maintain a positive, pro-active rapport with adjacent landowners; provide them with technical assistance and advice to help ensure compatible off-site development; and maintain an active working relationship with local regulatory agencies (e.g., Polk County, Southwest Florida Water Management District, DEP).

- g. Problem: Tenoroc staff is inadequately trained to manage upland habitats.

Strategy: Seek funding and approval for a land manager position at Tenoroc.

Strategy: Seek assistance from other FWC divisions or offices with in-house expertise concerning land management problems.

- h. Problem: FWC, Division of Law Enforcement, has identified illegal taking of game fish and illegal entry as problems at Tenoroc.

Strategy: Target specific areas of known illegal activity to reduce violations and maintain compliance with existing laws and regulations.

- C. Conflicting Adjacent Land Uses: Large areas of recently reclaimed mined land around Tenoroc have been approved for residential and commercial development (Figure 11). This is certain to cause problems with management of the FMA, including trespass, stormwater runoff, feral pets, nuisance wildlife, increased traffic, etc. Such problems will place additional demands on staff and funding.

## Conflicting Adjacent Land Use

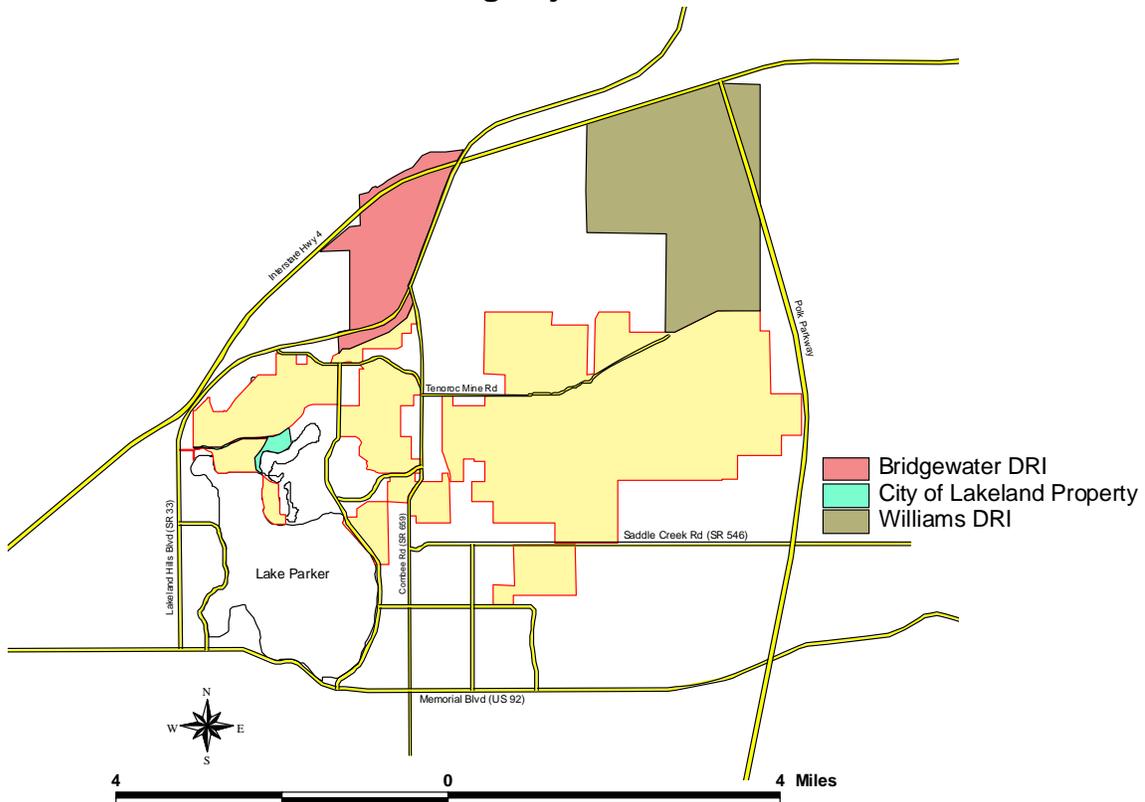


Figure 11. Conflicting adjacent land use, Tenoroc Fish Management Area.

- D. Agency's Plan for Nonrenewable Natural and Cultural Resources: The only non-renewable environmental resources at Tenoroc are its mined pit lakes and undeveloped land forms. The management intent of DFF is to protect and enhance these resources.

Four recorded archaeological sites on unmined land have been documented and evaluated by the DHR on Tenoroc. Accordingly, there is a reasonable probability that Tenoroc may contain other historical or archaeological valued properties, particularly in areas undisturbed by past mining activities.. As such, the DHR has recommended that prior to any land clearing or ground disturbing activities, proposed project(s) be submitted to DHR for review and comment. Any management and recreational activities that require land clearing or ground disturbing activities will be submitted to DHR prior to implementation and procedures, as outlined in AManagement Procedures for Archaeological and Historical Sites and Properties on State-Owned or Controlled Lands, will be followed.

- E. Impact of Planned Uses on Renewable and Non-renewable Resources: There are no known impacts of outlined planned uses listed in Section II, C. on renewable and non-renewable resources at Tenoroc. Avoiding possible negative impacts on resources continues to be an integral part of the goals, objectives, strategies and intent of planned

management activities. Assessments of potential impacts on renewable and non-renewable resources will be included within the scope of each planned use at Tenoroc.

F. Key Management Activities Necessary to:

1. Preserve and Protect Natural Resources:

- a. Vegetation: Tenoroc is a mostly disturbed site consisting of lakes, phosphatic clay settling areas and sand tailing areas that resulted from mining and reclamation. As such, much of the original vegetation was destroyed and now consists of opportunistic invasive plant associations.

Those areas relatively undisturbed by mining activities have been identified and designated for only passive recreation or no immediate use. These areas have also been identified as high priority areas for prescribed fire and exotic plant control.

- b. Fisheries: DFF maintains an active sportfish management program at Tenoroc. This program includes intensive management of existing game fish resources through public use and harvest regulations, stocking programs, commercial harvest of non-native fish, construction and placement fish attractors, reestablishment of desirable aquatic plants, and control of invasive aquatic plants. In addition, DFF continues to assess existing fisheries resources through fish sampling and lake water quality monitoring. DFF also will actively participate in on-going reclamation projects to re-design drainage and lake shorelines and continue to design and implement improvements to enhance fishing access and facilities.
- c. Wildlife: DFF will continue to coordinate with (and request the assistance of) DOW in the management of wildlife resources at Tenoroc.
- d. Other Recreational Resources: DFF will continue to maintain the existing non-fishery related recreational resources at Tenoroc. Within the ability of its staff and funding, DFF will coordinate with or assist other Divisions or Offices within FWC, other state agencies, local governments, environmental clubs or organizations, and the general public to develop or enhance other nature based recreational opportunities that are compatible with the designated use of the property (e.g., birding, hiking, bike riding, horseback riding).

2. Restore Habitat: DFF will continue to maintain an active role in restoration of any landform at Tenoroc to ensure the protection and enhancement of fish and wildlife communities.

3. Control the Spread of Non-Native Plants and Animals: DFF will continue to coordinate with DEP's West Central Upland-Invasive Program to acquire additional funding for the control of non-native upland plants. However, it is DFF's position that any long-term control or management of the extensive non-native plant communities at Tenoroc should be part of an overall reforestation or revegetation project. At this time, funding for such a program is undetermined. On lands under active reclamation,

DFF will require that all reclamation efforts include control of non-native upland plant communities and establishment of native plants. In addition, DFF will continue to make available Tenoroc lands as research sites for development of experimental methods for control of upland non-native plants.

The aquatic plant control program at Tenoroc will continue with the cooperation of Polk County Environmental Department and DEP's Bureau of Invasive Plant Management. DFF re-establishment of desirable aquatic plants on Tenoroc lakes will continue.

Control of non-native fishes will continue under the commercial sub-lease arrangement for blue tilapia. Additional efforts to control other non-native fishes will be undertaken as needed. Control of non-native upland animal species (e.g., feral hogs) will be requested from DOW. Where practical, DFF will ask that DOW use recreational hunting as the preferred control method to increase public recreational opportunities.

4. Prescribed Fire and Other Resource Management Activities: DOF has developed and is implementing an active prescribed burn plan for Tenoroc. This plan places special emphasis on the unmined, undisturbed lands. In addition, DOF has developed a reforestation plan addressing 2,541 acres of the property; however, management funding is inadequate to accomplish this partial reforestation.

In addition, DFF will continue to provide for hiking, horseback riding, wildlife viewing and picnicking recreational opportunities.

- G. Soil and Water Resources Conservation: Reclamation of mined land, by its nature, requires extensive earthmoving and drainage activities. Generally, these activities are within individual land blocks isolated by containment features. All reclamation activities at Tenoroc will be developed, implemented and administered by DEP's Bureau of Mine Reclamation and will include all appropriate permits and measures concerning soil and water conservation.

All projects undertaken by FWC, such as facilities expansion, access roads, wetland creation, reforestation, etc., will include all appropriate permits and measures to conserve soil and water resources at Tenoroc FMA.

- H. Findings of Inadequacy and Recommendations by Land Management Review Team: A management review was conducted on Tenoroc FMA on February 24, 2000. The final report, including the manager's response(s) to the review team's findings, is provided in Appendix IX.
- I. Cost Estimates for Conducting Management Activities: General management activities on Tenoroc include resource management, administration, capital improvements, visitor services/recreation, and law enforcement. Resource management activities constitute tasks such as exotic plant control, prescribed burning, native vegetation management, biological data collection, analysis and reporting, stocking enhancements/population

augmentation, rule development and review, hydrological management, lake restoration, land reclamation, plant surveys, and tree planting. Administration represents administrative duties accomplished by the central (Tallahassee), regional and field offices related to the Tenoroc project. Support activities include tasks such as land management planning, personnel management, project inspections, grant applications, vehicle/equipment operation and maintenance, and report writing/editing/manuscript preparation. Capital improvements encompass new facility construction and facility maintenance. Visitor services/recreation activities involve tasks such as development of public information, outreach and education programs, boundary and informational signs, and public use administration. Law enforcement includes all activities for enforcing criminal, conservation and boating laws on land and freshwater environments, and all cost associated with these services. Table 1 is the annual expenditure by governmental agencies for Tenoroc during FY 2000-01.



Table 1. Annual expenditures by governmental agency for general management activities at Tenoroc Fish Management Area, FY 2000-01.

<b>MANAGEMENT ACTIVITIES</b>	<b>FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION</b>	<b>DEPARTMENT OF AGRICULTURE, DIVISION OF FORESTRY</b>	<b>DEPARTMENT OF CORRECTIONS, POLK CORRECTIONAL INSTITUTION</b>	<b>DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF MINED LANDS</b>	<b>POLK COUNTY DEPARTMENT OF NATURAL RESOURCE</b>	<b>SUB-TOTAL</b>
RESOURCE MANAGEMENT	\$89,382	\$7,800	\$0	\$441,667	\$14,408	\$553,257
ADMINISTRATION	\$52,383	\$0	\$0	\$0	\$0	\$52,383
SUPPORT	\$109,328	\$0	\$0	\$0	\$0	\$109,328
CAPITAL IMPROVEMENTS	\$134,715	\$0	\$50,439	\$0	\$0	\$185,154
VISITOR SERVICES/RECREATION	\$23,844	\$0	\$0	\$0	\$0	\$23,844
LAW ENFORCEMENT	\$22,369	\$0	\$0	\$0	\$0	\$22,369
<b>TOTAL</b>	<b>\$432,022</b>	<b>\$7,800</b>	<b>\$50,439</b>	<b>\$441,667</b>	<b>\$14,408</b>	<b>\$946,336</b>

- J. Cost Estimates for Conducting Other Management Activities that would Enhance Natural Resources and Expand Public, Nature-Based Recreational Opportunities: Below is a list of other management activities that would enhance or restore natural resources and expand public, nature-based recreational opportunities at Tenoroc. Included is the estimated cost for each activity and if the activity is being funded. Activities indicated as funded are being financed through other state, federal or private agencies or corporations. Activities indicated as in-progress have not been funded to date; however, funding has been applied for through grant applications or included in DFF annual budget request. Activities indicated as not funded have no source of funding.

<b>ACTIVITY</b>	<b>COST ESTIMATE</b>	<b>FUNDING</b>
Upper Saddle Creek Restoration Project (land reclamation, wetland creation, drainage, etc.)	\$8.5 million	Yes
Pasture Lakes Recreational Facility	\$262,000	Yes
Tenoroc Educational Facility	\$800,000	In-progress
North Lake Parker Wetlands Project (wetland creation, Bridgewater tract)	\$300,000	In-progress
Reforestation/Exotic Upland Plant Control Project (12 year plan)	\$933,086	No
Boundary Survey (Original property donation)	\$15,000	No
Fishing Access Construction (Bridgewater tract)	\$1,079,309	No
Fishing Access Construction (Saddle Creek tract)	\$154,399	No
Picnic Lake Retrofit	\$125,000	No
Trails System Expansion Project	\$75,000	No

- K. Planned Use Compliance: Uses planned for Tenoroc FMA are in compliance with the Conceptual State Lands Management Plan and its requirement for Abalanced public utilization, and are in compliance with the mission as described in FWC’s Agency Long Range Program Plan. Such uses also comply with the authorities of the FWC as derived from Article IV, Section 9 of the Florida Constitution as well as guidance and directives of Chapters 372, 253, 259, 370, 373, 375, 378, 403, 597 and 870 of the Florida Statutes.

- L. Compliance with Local Government Comp Plan: This plan is in conformance with the Local Government Comprehensive Plan for Polk County, Florida, as approved and adopted. The letter confirming compliance is contained in Appendix X.

## **APPENDIX I**

Legal Description of Lands of Tenoroc Fish Management Area

from

Florida Department of Environmental Protection  
Division of State Lands

Lease Number 3977

**LEGAL DESCRIPTION OF THE ORIGINAL TENOROC DONATION**

**LEASE NUMBER 3977**

**TENOROC FISH MANAGEMENT AREA**

**MAY 25, 1993**

**IN TOWNSHIP 27 SOUTH, RANGE 24 EAST, POLK COUNTY, FLORIDA:**

**Section 25.**

- (a) The NE-1/4 of SE-1/4.
- (b) The S-1/2 of S-1/2.
- (c) The SE-1/4 of NW-1/4 of SE-1/4.

(d) The SE-1/4 of NE-1/4 **LESS (1)** approximately one acre conveyed by William Collins and wife to John I. Roberts and others, as trustees, for use as a cemetery, under deed dated May 5, 1891, recorded in Deed Book 35, page 547, Polk County, Florida, and **LESS (2)** approximately 1.39 acres conveyed by Smith-Douglass Company, Incorporated, to the Board of County Commissioners, for use as a cemetery, under deed dated December 14, 1956, recorded in official Records Book 50, page 171, Polk County, Florida.

Section 26. All **LESS** the north 800 feet of the east 2300 feet.

**Section 27.**

- (a) The E-1/2 of NE-1/4.
- (b) The NE-2/4 of SE-1/4.

**Section 28.**

- (a) That part of the SE-1/4 lying south of Old Combee Road.
- (b) That part of the E-1/2 of SE-1/4 lying south of Old Combee Road **LESS (1)** any part of the N-1/4 of E-1/2 of SW-1/4 lying west of Old Lake Parker Drive (now abandoned), and **LESS (2)** any part thereof described as: begin on the old hard road at a point lying 990 feet east of the northwest corner of the S-1/2 of NW-1/4 of SW-1/4, run thence south 330 feet, thence east to said old hard road (formerly known as Old Lake Parker Drive and now abandoned), thence northwesterly and westerly along said old hard road to the point of beginning.

**Section 33.**

(a) The west 12 acres of the N-1/2 of NE-1/4 of NE-1/4 (being otherwise described as the W-3/5 of N-1/2 of NE-1/4 of NE-1/4).

(b) The W-1/2 of NE-1/4.

(c) The NW-1/4 of SE-1/4.

(d) The W-1/2 of NE-1/4 of SE-1/4.

(e) The E-3/4 of S-1/2 of SE-1/4 **LESS (1)** the south 580 feet of the east 455 feet thereof and **LESS (2)** a strip of land 150 feet wide as appropriated to the City of Lakeland under eminent domain case no. GC-G-78-3563, Circuit Court for Polk County, Florida, as shown by order of taking dated January 29, 1979, filed January 31, 1979, recorded in Official Records Book 1856, page 754, Polk County, Florida, and final judgment dated March 13, 1981, filed March 17, 1981, recorded in Official Records Book 2004, page 43, Polk, County, Florida.

(f) The E-1/2 of NW-1/4.

(g) The S-3/4 of W-1/2 of NW-1/4.

**Section 34.**

(a) The S-3/4 of NE-1/4.

(b) The N-1/2 of NE-1/4 of NE-1/4 **LESS** that part (if any) quit claimed by C. C. Grimes and wife to H. A. Hickman under deed dated November 12, 1958, recorded in Official Recording Book 464, page 271, Polk County, Florida.

(c) The NW-1/4 of NE-1/4 of NW-1/4.

(d) The S-1/2 of NE-1/4 of NW-1/4.

(f) The SE-1/4 of SW-1/4.

(g) The SE-1/4 of SW-1/4 **LESS** that part of the south 500 feet of the North 888.5 feet lying west of the Seaboard Coast Line Railroad Company right-of-way.

(h) The E-1/2 of SE-1/4.

(j) The NW-1/4 of SE-1/4.

(j) The north 150 feet of the E-1/2 of SW-1/4 of SE-1/4.

**Section 35.** All.

**Section 36.** All.

**IN TOWNSHIP 28 SOUTH, RANGE 24 EAST, POLK COUNTY, FLORIDA:**

**Section 1.**

- (a) The NW-1/4.
- (b) The N-1/2 of SW-1/4.

**Section 2.**

- (a) The N-1/2.
- (b) The NE-1/4 of SE-1/4.

**Section 3.**

- (a) The NW-1/4 **LESS** a five-acre square in the southwest corner thereof.
- (b) The NE-1/4 of NE-1/4.

**Section 4.** All fractional **LESS (1)** the S-3/4 of E-1/4, and **LESS (2)** the W-1/2 of W-1/2 of NW-1/4 (being otherwise described as the W-1/2 of U. S. Government Lot 2), and **LESS (3)** that part of the fractional E-1/2 of W-1/2 of NW-1/4 lying southwesterly of Lake Parker Drive (the right-of-way for which was conveyed by Smith-Douglass Company, Incorporated, to Polk County under instrument dated August 27, 1962, recorded in Official Records Book 631, page 128, Polk County, Florida), and **LESS (4)** that part of the E-1/2 of NW-1/4 of NW-1/4 lying north and east of New Lake Parker Drive (also known as East Lake Parker Drive), and **LESS (5)** the NE-1/4 of NW1/4, and **LESS (6)** the NW-1/4 of NE-1/4.

**IN TOWNSHIP 27 SOUTH, RANGE 25 EAST, POLK COUNTY, FLORIDA:**

**Section 29.** The S-3/4 of W-1/2 of W-1/2.

**Section 30.** All LESS that part of the N-1/2 of NW-1/2 lying north of the centerline of the existing right-of-way for the Tenoroc Spur of the Seaboard Coast Line Railroad Company (formerly Seaboard Air Lin Railroad Company).

**Section 31.** All LESS the south 1580 feet of the east 1450 feet thereof, and LESS the south 100 feet of the west 1000 feet of the east 2450 feet thereof.

**Section 32.**

(a) The NW-1/4.

(b) The W-1/2 of SW-1/4 LESS the south 1580 feet thereof.

**ALSO:** The SW 1/4 of N 1/4; and the N 2 of NW 1/4 of SE 1/4; and the SW 2 of NW 1/4 of SE 1/4; and the N 3/4 of E 3/4 of W 2; and the east 200 feet of the N 3/4 of W 1/8; of Section 25, Township 27 South, Range 24 East, Polk County, Florida.

**LESS** begin at the northeast corner of the W 1/8 of said Section 25 and run west along the north boundary thereof a distance of 200 feet, thence south-and parallel to the east boundary of said W 1/8 a distance of 440.73 feet, thence northeasterly in a straight line to the point of beginning.

**ALSO:**

Begin at the NE corner of the NE 1/4 of the SW 1/4k of Section 33, TOWNSHIP 27 SOUTH, Pm4GE 24 EAST, thence South 00E12' 18" West along the East line of said NE 1/4 of the SW 1/4 a distance of 1436.27 feet to the SE corner of said NE 1/4 of the SW 1/4; thence North 89E 57' 09" East along the North line of the W 2 of the SW 1/4 of the SE 1/4 of said Section 33 a distance 666.55 feet to the NE corner of said W 2; thence South 00E 23' 42" West along the East line of said W 2 a distance of 894.97 feet to a point being 75.00 feet North of the center line of and existing railroad track; thence South 89E 36' 43" West and parallel to said railroad tracks 502.45 feet to the point of curvature of the curve concave to the Northeasterly having a radius of 1071.30 feet and a central angle of 19E 59' 59"; thence along said curve and still parallel to said railroad tracks 373.95 .feet to the point of tangency; thence North 70E 23' 21" West still parallel to said railroad tracts 466.68 feet to the point of curvature of curve concave to the Northeasterly having a radius of 880.10 feet, and a central angle of 15E 04' 05"; thence along said carve and still parallel to said railroad tracks 231.45 feet; thence North 34E 33' 08" East 192.25 feet; thence North 41E 14' 05" West 216.78 feet; thence North 33E 26' 28" East 187.53 feet; thence North 54E 47' 22" West 605.46 feet; thence North 04E22' 22" West 521.55 feet;

thence North 33E 41' 53" East 331.33 feet; thence North 32E 41' 20' West feet; thence North 68E 43' 36" West 254.37 feet, to the North line of the NW 2 of the SW 1/4 of said Section 33; thence North 89E 58' 27" East along said North line and the North line of aforesaid of the SW 1/4 a distance of 1574.29 feet to the point of beginning.

**LESS AND EXCEPT THE FOLLOWING:**

**THREE PARCELS OF LAND, HEREINAFTER REFERRED TO AS PARCELS "A", "B", AND "C" ALL LOCATED IN THE NORTHWEST ONE-QUARTER OF SECTION 3, TOWNSHIP 28 SOUTH, RANGE 24 EAST, POLK COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:**

**PARCEL "A"**

COMMENCE AT THE SOUTHWEST CORNER OF SAID SECTION 3, THENCE NOO11-46W, 3277.86 FEET ALONG THE CENTERLINE SURVEY OF S.R. S-33-A, THENCE N89-48-14E, 40.00 FEET TO THE EAST RIGHT-OF-WAY LINE OF S.R. S-33-A AND THE POINT OF BEGINNING;

THENCE CONTINUE N89-48-14E, 10.00 FEET;

THENCE NOO-11-46W, 10.00 FEET;

THENCE S89-48-14W, 10.00 FEET TO SAID EAST RIGHT-OF-WAY LINE;

THENCE SOO-11-46E; 10.00 FEET ALONG SAID RIGHT-OF-WAY LINE TO THE POINT OF BEGINNING.

THE ABOVE DESCRIBED PARCEL "A" CONTAINS 0.002 ACRES, MORE OR LESS.

**PARCEL "B"**

COMMENCE AT THE SOUTHWEST CORNER OF SAID SECTION 3, THENCE NOO-11-46W, 3675.86 FEET ALONG THE CENTERLINE SURVEY OF S.R. S-33-A, THENCE N89-48-14E, 40.00 FEET TO THE EAST RIGHT-OF-WAY LINE OF S.R. S-33-A AND THE POINT OF BEGINNING;

THENCE CONTINUE N89-48-14E, 10.00 FEET;

THENCE NOO-11-46W, 10.00 FEET;

THENCE S89-48-14W, 10.00 FEET TO SAID EAST RIGHT-OF-WAY LINE;

THENCE SOO-11-46E, 10.00 FEET ALONG SAID RIGHT-OF-WAY LINE TO THE POINT OF BEGINNING.

THE ABOVE DESCRIBED PARCEL "B" CONTAINS 0.002 ACRES, MORE OR LESS.

**PARCEL "C"**

COMMENCE AT THE SOUTHWEST CORNER OF SAID SECTION 3, THENCE NOO-11-46W, 3975.22 FEET ALONG THE CENTERLINE SURVEY OF S.R. S-33-A TO THE POINT OF CURVATURE OF A CURVE TO THE RIGHT HAVING A RADIUS OF

1145.92 FEET, THENCE ALONG SAID CENTERLINE SURVEY AND THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 2-58-12 A DISTANCE OF 59.40 FEET, THENCE S86-56-34E, 40.00 FEET TO THE EASTERLY RIGHT-OF-WAY LINE OF S.R. S-33-A AND THE POINT OF BEGINNING;

THENCE CONTINUE S86-58-34E, 9.99 FEET;

THENCE NOB-01-26E, 2.89 FEET;

THENCE S89-35-23E, 111.61 FEET;

THENCE NOO-24-37E, 5.00 FEET

THENCE N89-35-23W, 111.38 FEET

THENCE N03-01-26E, 211 FEET

THENCE N86-58-34W, 5.99 FEET

THENCE NOO-05-03E, 5081 FEET TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF S.R. S-33-A, SAID POINT BEING ON A NONTANGENT CURVE TO THE LEFT WHOSE RADIAL POINT BEARS S84-05-13E, 1105.92 FEET;

THENCE ALONG THE ARC OF SAID CURVE AND SAID RIGHT-OF-WAY LINE THROUGH A CENTRAL ANGLE OF 3-08-53, A DISTANCE OF 60.75 FEET TO THE POINT OF BEGINNING.

THE ABOVE DESCRIBED PARCEL "C" CONTAINS 0.018 ACRES, MORE OR LESS.

**PARCEL "D"**

A PARCEL OF LAND BEING A PORTION OF THE NORTHEAST ONE-QUARTER OF A THE NORTHEAST ONE-QUARTER OF SECTION 4, TOWNSHIP 28 SOUTH, RANGE 24 EAST, POLK COUNTY, FLORIDA, BEING-MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHEAST CORNER OF SAID SECTION 4, THENCE NOO-11-27E, 4012.07 FEET ALONG THE EAST LINE OF SAID SECTION 4, THENCE N89-34-14W, 66.51 FEET TO THE WESTERLY RIGHT-OF-WAY OF S.R. S-33-A AND THE POINT OF BEGINNING;

THENCE CONTINUE N89-34-14W, 1254.88 FEET TO THE WEST LINE OF THE NORTHEAST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER OF SAID SECTION 4; THENCE ALONG SAID WEST LINE NOO-07-50E, 50.00 FEET; THENCE S89-34-14E, 1257.23 FEET TO A POINT ON SAID WESTERLY RIGHT-OF-WAY LINE, SAID POINT BEING ON A NON-TANGENT CURVE TO THE LEFT, WHOSE RADIAL POINT BEARS S85-58-OOE, 1185.92 FEET;

THENCE SOUTHERLY ALONG SAID WESTERLY RIGHT-OF-WAY LINE AND THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 2-25-05 A DISTANCE OF 50.05 FEET TO THE POINT OF BEGINNING.

THE ABOVE DESCRIBED PARCEL CONTAINS 1.442 ACRES, MORE OR LESS

**ALSO LESS AND EXCEPT THE FOLLOWING:**

Commence at the Northwest corner of the Southeast 1/4 of the Northwest 1/4 of Section 4, Township 28 South, Range 24 East, Polk County, Florida; thence North 89E 55' 56" East along the North-line of said Southeast 1/4 of the Northwest 1/4 and the Southwest 1/4 of the Northeast 1/4 of said Section 4 a distance of 1132.48 feet; thence South 58E 29' 24" West 520.58 feet; thence South 60E 52' 07" West 431.05 feet; thence South 04E 50' 43" West 516.02 feet; thence South 40E 05' 28" East 281.45 feet; thence South 49E 54' 32" West 498.42 feet to the East right-of-way line of Lake Parker Drive; thence North 40E 05' 28" West along said right-of-way line 219.22 feet to the point of curvature of a curve concave to the Northeasterly having a central angle of 20E 20' 00" and a radius of 596.62 feet; thence along said curve and right-of-way line 211.73 feet to the point of tangency; thence North 19E 45' 30" West still along said right-of-way line 367.82 feet to a Point on a curve concave to the Southwesterly having a central angle of 10E 21' 13", radius of 2,904.79 feet, chord bearing of North 24E 13' 05" West and a chord distance of 524.20 feet; thence along said curve and right-of-way line 524.91 feet to the point of tangency; thence North 29E 23' 41" West still along said right-of-way line 408.29 feet to the North line of the Southwest 1/4 of the Northwest 1/4 of said Section 4; thence North 89E 55' 56" East along said North line 517.53 feet to the Point of Beginning. Said tract containing 27.11 acres more or less.

**LEGAL DESCRIPTION OF THE SADDLE CREEK TRACT**

**AMENDMENT 1 TO LEASE NUMBER 3977**

**TENOROC FISH MANAGEMENT AREA**

**MARCH 17,1998**

**IN TOWNSHIP 28 SOUTH, RANGE 24 EAST, POLK COUNTY, FLORIDA:**

**Section 2:** The S-1/2 of SE-1/4; and the SE-1/4 of SW-1/4.

**Section 11:** The N-3/4 of NE-1/4; and the N-3/4 of E-1/2 of NW-1/4; and the SW-1/4 of NW-1/4; **LESS** the west 25 feet of said SW-1/4 of NW-1/4.

The foregoing property are subject to (a) right-of-way and drainage easements to the State of Florida (for Saddle Creek Road) dated March 27, 1963, Official Records Book 696, at pages 212 and 214, Polk County, Florida, (b) electric line easement to Tampa Electric Company dated June 4, 1956, Official Records Book 12, page 273, Polk County, Florida, (c) sewage main easement to Polk County dated May 6, 1994, Official Records Book 3416, page 204, Polk County, Florida, and (d) encroachments and other matters shown on survey plat prepared by Keith & Schnars P.A., Lakeland, Florida, drawing no. 293001, as revised April 9, 1997, and May 6, 1997, certified by Richard G. Powell, Florida registered land surveyor no. 4468, and certified to the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida.

**LEGAL DESCRIPTION OF THE BRIDGEWATER TRACT**

**AMENDMENT 2 TO LEASE NUMBER 3977**

**TENOROC FISH MANAGEMENT AREA**

**November 8, 2000**

**BRIDGEWATER PARCEL 5B**

A parcel of land in Sections 21, 28 and 29, Township 27 South, Range 24 East, Polk County, Florida, being more particularly described as follows (all distances, bearings, acreage, and coordinates are grid values, referenced to the State Plane Coordinate System, Florida West Zone, North American Datum of 1983, adjustment of 1990, average combined scale factor used was 0.9999353):

For a Point of Beginning, commence at the Southwest corner of the Northwest 1/4 of said Section 28 (N' 1371500.94, E' 681,315.65); thence N45E12'25"E, a distance of 431.30 feet to the East line of the West 304.98 feet of the said Northwest 1/4; thence N00E12'25"E, along said East line, a distance of 935.40 feet to the Southerly right-of-way line of State Road 33; thence along said Southerly right-of-way line the following four courses: thence N77E00'59"E, a distance of 1483.71 feet to a point of curvature with a curve, concave Northwesterly and having a radius of 3939.46 feet; thence Northeasterly along the arc of said curve through a central angle of 32E05'51", an arc length of 2206.92 feet (CB - N60E58'03"E, CH - 2178.17 feet) to a point on the South line of said Section 21; thence continue along the arc of said curve through a central angle of 24E22'58", an arc length of 1676.48 feet (CB - N32E43'38"E, CH - 1663.86 feet); thence N20E32'09"E, a distance of 39.04 feet to the Westerly right-of-way line of Combee Road; thence Southerly along said Westerly right-of-way line, the following five courses: thence S16E21'10"E, a distance of 688.08 feet to a point of curvature with a curve, concave Westerly and having a radius of 5689.21 feet; thence Southerly along the arc of said curve through a central angle of 08E00'04", an arc length of 794.47 feet (CB - S12E21'08"E, CH - 793.83 feet) to a point on the North line of said Section 28; thence continue along the arc of said curve through a central angle of 00E36'56", an arc length of 61.12 feet (CB - S08E02'38"E, CH - 61.12 feet); thence S07E44'10"E, a distance of 1883.46 feet to a point of curvature with a curve, concave Westerly and having a radius of 5689.21 feet; thence Southerly along the arc of said curve through a central angle of 03E42'54", an arc length of 368.87 feet (CB - S05E52'43"E, CH - 368.81 feet) to the North boundary of East Lakeland Commerce Park as recorded in Plat Book 88 at Pages 11 and 12 of the Public Records of said Polk County; thence along the boundary of said East Lakeland Commerce Park, the following three courses: thence S89E58'18"W, a distance of 1264.65 feet; thence S00E06'27"W, a distance of 329.98 feet; thence S00E05'12"W, a distance of 950.54 feet to the Northerly right-of-way line of Old Combee Road; thence Westerly along said Northerly right-of-way line the following 11 courses: thence N56E50'18"W, a distance of 1271.24 feet to a point of curvature with a curve, concave Southwesterly and having a radius of 597.92 feet; thence Westerly along the arc of said curve through a central

angle of 53E28'04", an arc length of 557.97 feet (CB - N83E34'20"W, CH - 537.95 feet); thence S69E41'38"W, a distance of 1040.28 feet to a point of curvature with a curve, concave Northwesterly and having a radius of 547.92 feet; thence Westerly along the arc of said curve through a central angle of 26E13'25", an arc length of 250.78 feet (CB - S82E48'21"W, CH - 248.59 feet); thence N84E04'57"W, a distance of 366.48 feet, to a point of curvature with a curve concave Southerly and having a radius of 1457.30 feet; thence Westerly along the arc of said curve through a central angle of 09E04'54", an arc length of 230.99 feet (CB - N88E37'24"W, CH - 230.75 feet); thence S86E50'09"W, a distance of 556.32 feet to a point on the east line of said Section 29; thence continue S86E50'09"W, a distance of 756.42 feet to a point of curvature with a curve concave Northerly and having a radius of 793.46 feet; thence Northwesterly along the arc of said curve through a central angle of 40E58'48", an arc length of 567.51 feet (CB - N72E40'26"W, CH - 555.49 feet); thence N52E11'02"W, a distance of 637.33 feet to a point of curvature with a curve, concave Southwesterly and having a radius of 661.58 feet; thence Northwesterly along the arc of said curve through a central angle of 07E39'30", an arc length of 88.43 feet (CB - N56E00'47"W, CH - 88.36 feet) to the North line of the South 2 of said Section 29; thence N89E51'26"E along said North line, a distance of 1864.36 feet to the said Point of Beginning.

**LESS AND EXCEPT** lands described in deed recorded in Official Record Book 3642, Page 2236 of the Public Records of Polk County, Florida.

**ALSO LESS AND EXCEPT** the following described tract of land:

Commence at the Southwest corner of the Northwest 1/4 of said Section 28 (N' 1371500.94, E' 681315.65); thence N45E12'25"E, a distance of 431.30 feet to a point on the East line of the West 304.98 feet of said Northwest 1/4 of said Section 28, said point also being the Point of Beginning; thence N00E12'25"E, along said East line, a distance of 935.40 feet to the Southerly right-of-way line of State Road 33; thence along said Southerly right-of-way line the following four courses: N77E00'59"E, a distance of 1483.73 feet to the point of curvature of a curve concave to the Northwest, having the following elements: a radius of 3939.46 feet, a central angle of 32E05'51", a chord distance of 2178.17 feet, and a chord bearing of N60E58'03"E; thence along the arc of said curve, a distance of 2206.92 feet to a point on the South line of the Southeast 1/4 of said Section 21; thence continue along said curve concave Northwest, having the following elements: a radius of 3939.46 feet, a central angle of 24E22'58", a chord distance of 1663.86 feet, and a chord bearing of N32E43'38"E; thence along the arc of said curve, a distance of 1676.48 feet to the point of tangency; thence N20E32'09"E, a distance of 39.04 feet to the Westerly right-of-way line of State Road 33-A (Combee Road); thence along said Westerly right-of-way line the following two courses: S16E21'10"E, a distance of 688.08 feet to the point of curvature of a curve concave to the Southwest, having the following elements: a radius of 5689.21 feet, a central angle of 02E21'12", a chord distance of 233.65 feet, and a chord bearing of S15E10'34"E; thence along the arc of said curve, a distance of 233.66 feet; thence leaving said curve and Westerly right-of-way line, run S76E00'02"W, a distance of 110.00 feet; thence S19E01'10"W, a distance of 692.38 feet; thence S44E23'29"W, a distance of 1159.49 feet; thence S60E37'42"W, a distance of 1147.50 feet; thence S67E51'04"W, a distance of

2135.88 feet; thence N89E47'35"W, a distance of 400.00 feet to the said Point of Beginning.

**ALSO LESS AND EXCEPT** the following described tract of land:

Commence at the Southwest corner of the Northwest 1/4 of said Section 28 (N' 1371500.94, E' 681315.65); thence S89E54'18"E, along the South line of the North 2 of said Section 28, a distance of 3971.08 feet to a point on the West line of East Lakeland Commerce Park, as recorded in Plat Book 88, Pages 11 and 12 of the Public Records of said Polk County, Florida, thence along said West line of East Lakeland Commerce Park the following two courses: N00E05'12"E, a distance of 12.57 feet; thence N00E06'27"E, a distance of 329.98 feet to the Northwest corner of said East Lakeland Commerce Park and the Point of Beginning; thence N00E05'43"E, a distance of 870.00 feet; thence S89E54'18"E, a distance of 654.28 feet; thence N00E05'43"E, a distance of 750.00 feet; thence S89E54'18"E, a distance of 400.00 feet to the Westerly right-of-way line of State Road 33-A (Combee Road); thence along said Westerly right-of-way line the following two courses: S07E44'10"E, a distance of 1262.24 feet to the point of curvature of a curve concave Westerly, having the following elements: a radius of 5689.21 feet, a central angle of 03E42'54", a chord distance of 368.81 feet, and a chord bearing of S05E52'43"E; thence along the arc of said curve, a distance of 368.87 feet to the Northeast corner of said East Lakeland Commerce Park; thence along the North line of said East Lakeland Commerce Park, S89E58'18"W, a distance of 1264.65 feet to the said Point of Beginning.

**ALSO LESS AND EXCEPT** the following described tract of land:

Commence at the Southwest corner of the Northwest 1/4 of said Section 28 (N' 1371500.94, E' 681315.65); thence S89E54'18"E, along the South line of the North 2 of said Section 28, a distance of 3971.08 feet to a point on the West line of East Lakeland Commerce Park, as recorded in Plat Book 88, Pages 11 and 12 of the Public Records of Polk County, Florida, said point also being the Point of Beginning; thence run S00E05'12"W, along said West line of East Lakeland Commerce Park, a distance of 937.97 feet to the Northerly right-of-way line of Old Combee Road; thence run Westerly along said Northerly right-of-way line the following four courses: N56E50'18"W, a distance of 1271.24 feet, to the point of curvature of a curve concave Southerly, having the following elements: a radius of 597.92 feet, a central angle of 53E28'04", a chord distance of 537.95 feet, and a chord bearing of N83E34'20"W; thence along the arc of said curve, a distance of 557.97 feet to the point of tangency; thence S69E41'38"W, a distance of 1040.28 feet, to the point of curvature of a curve concave Northerly, having the following elements: a radius of 547.92 feet, a central angle of 08E19'53", a chord distance of 79.60 feet, and a chord bearing of S73E51'35"W; thence along the arc of said curve a distance of 79.67 feet to a point on said arc; thence leaving said curve and Northerly right-of-way line, run N00E12'57"E, a distance of 912.47 feet; thence S89E54'18"E, parallel with the said South line of the North 2 of Section 28, a distance of 2437.54 feet; thence N45E02'22"E, a distance of 300.00 feet; thence S00E05'43"W, a distance of 212.34 feet to the Northwest corner of said East Lakeland Commerce Park; thence along the West line of said East Lakeland Commerce Park, the following two courses: S00E06'27"W, a distance of 329.98 feet; thence S00E05'12"W, a distance of 12.57 feet to the said Point of Beginning.

## BRIDGEWATER PARCEL 7

A parcel of land in Sections 29, 31 and 32, Township 27 South, Range 24 East, and Section 5, Township 28 South, Range 24 East, all in Polk County, Florida, being more particularly described as follows (all distances, bearings, acreage, and coordinates are grid values, referenced to the State Plane Coordinate System, Florida West Zone, North American Datum of 1983, adjustment of 1990, average combined scale factor used was 0.9999353):

For a Point of Beginning, commence at the Northwest corner of the Northeast 1/4 of said Section 31 (N ' 1368759.84, E ' 673390.12); thence N88E11'32"E, a distance of 1317.10 feet to the Southwest corner of the Southeast 1/4 of the Southeast 1/4 of said Section 30; thence N00E03'30"E, a distance of 1325.85 feet to the Northwest corner of the said Southeast 1/4 of the Southeast 1/4 of Section 30; thence N88E20'27"E, a distance of 1316.33 feet to the Southwest corner of the Northwest 1/4 of the Southwest 1/4 of said Section 29; thence N89E44'59"E, a distance of 1323.07 feet to the Southeast corner of the said Northwest 1/4 of the Southwest 1/4 of Section 29; thence N00E03'24"E, a distance of 1319.93 feet to the Northeast corner of the said Northwest 1/4 of the Southwest 1/4 of Section 29; thence N00E03'37"E along the West line of the Southeast 1/4 of the Northwest 1/4 of said Section 29, a distance of 34.91 feet to the South right-of-way line of Old Combee Road; thence Easterly along said South right-of-way line the following nine courses: thence N89E40'48"E, a distance of 167.87 feet; thence S73E37'15"E, a distance of 52.20 feet; thence N89E40'48"E, a distance of 249.98 feet; thence N85E23'27"E, a distance of 200.55 feet; thence N89E40'48"E, a distance of 1099.61 feet to a point of curvature with a curve, concave Southwesterly and having a radius of 611.58 feet; thence Southeasterly along the arc of said curve through a central angle of 38E08'10", an arc length of 407.07 feet (CB - S71E15'07"E, CH - 399.60 feet); thence S52E11'02"E, a distance of 637.33 feet to a point of curvature with a curve, concave Northeasterly and having a radius of 843.46 feet; thence Easterly along the arc of said curve through a central angle of 40E58'49", an arc length of 603.28 feet (CB - S72E40'27"E, CH - 590.50 feet); thence N86E50'10"E, a distance of 753.47 feet to the East line of said Section 29 and the West right-of-way line of East Lake Parker Drive; thence Southerly along said West right-of-way line the following four courses: thence S00E12'25"W, a distance of 2006.46 feet to the Southeast corner of said Section 29; thence S00E23'20"W along the East line of said Section 32, a distance of 1985.97 feet to a point of curvature with a curve concave Northwesterly and having a radius of 1658.57 feet; thence Southwesterly along the arc of said curve through a central angle of 24E37'20", an arc length of 712.75 feet (CB - S12E42'00"W, CH - 707.28 feet); thence S25E00'40"W, a distance of 986.19 feet to the boundary of a parcel described in Official Record Book 2498 at Page 1292 of the Public Records of said Polk County; thence along said boundary the following 8 courses: thence N64E58'38"W, a distance of 728.21 feet to a point of curvature with a curve, concave Southwesterly and having a radius of 532.93 feet; thence Westerly along the arc of said curve through a central angle of 48E04'15", an arc length of 447.13 feet (CB - N89E00'46"W, CH - 434.13 feet); thence S66E57'07"W, a distance of 520.67 feet to a point of curvature with a curve, concave Southeasterly and having a radius of 532.93 feet; thence Southwesterly along the arc of said curve through a central angle of

46E55'10", an arc length of 436.42 feet (CB - S43E29'32"W, CH - 424.32 feet); thence S20E01'57"W, a distance of 176.37 feet to a point of curvature with a curve, concave Northwesterly and having a radius of 637.59 feet; thence Southwesterly along the arc of said curve through a central angle of 27E03'00", an arc length of 301.01 feet (CB - S33E33'27"W, CH - 298.23 feet); thence S47E04'57"W, a distance of 124.81 feet; thence S00E06'13"E, a distance of 1257.35 feet to a point on the North line of said Section 5 (N ' 1363353.58, E ' 678540.76); thence along the boundary of the City of Lakeland property as surveyed by Edwards-Panter, the following three courses: thence S00E07'11"E, a distance of 1365.50 feet; thence N89E58'43"E, a distance of 329.98 feet; thence S00E07'11"E to the ordinary high water line of Lake Parker; thence Northwesterly along the said ordinary high water line of Lake Parker, to a point on the West line of the East 2 of the Southwest 1/4 of said Section 31; thence N00E10'26"E along said West line to a point lying 947.79 feet Southerly of the Southwest corner of the East 2 of the Northwest 1/4 of said Section 31; thence S89E54'07"W, a distance of 837.30 feet to the East right-of-way line of State Road 33; thence N01E57'50"W, along said East right-of-way line, a distance of 299.98 feet; thence N89E53'29"E, a distance of 848.49 feet to the said West line of the East 2 of the Southwest 1/4 of Section 31; thence N00E10'26"E along said West line, a distance of 647.81 feet to the said Southwest corner of the East 2 of the Northwest 1/4 of Section 31; thence N00E09'35"E, along the West line of said East 2, a distance of 1964.73 feet to the Southeasterly right-of-way line of said State Road 33, and a point on a curve, concave Southeasterly and having a radius of 5609.22 feet; thence Northeasterly along the arc of said curve through a central angle of 09E07'18", an arc length of 892.99 feet (CB - N37E17'44"E, CH - 892.05 feet) to a point on the North line of said Section 31; thence N88E05'11"E along said North line, a distance of 777.93 feet to the said Point of Beginning.

**LESS AND EXCEPT** the North 626.06 feet of the Northwest 1/4 of the Northwest 1/4 of the Southeast 1/4 of said Section 29.

**ALSO LESS AND EXCEPT** that part of the Southwest 1/4 of the Southwest 1/4 of the Northeast 1/4 of said Section 29 lying South of the South right-of-way line of Old Combee Road and North of the North line of the North 626.06 feet of the Northwest 1/4 of the Northwest 1/4 of the Southeast 1/4 of said Section 29.

**ALSO LESS AND EXCEPT** lands described in deeds recorded in Official Record Book 3642 at Page 2226; Official Record Book 3642 at page 2230; and Official Record Book 3642 at page 2236 of the Public Records of Polk County, Florida.

**ALSO LESS AND EXCEPT THE FOLLOWING:**

A parcel of land in Section 31, Township 27 South, Range 24 East, Polk County, Florida, being more particularly described as follows (all distances, bearings, acreage and coordinates are grid values, referenced to the State Plane Coordinate System, Florida West Zone, North American Datum of 1983, adjustment of 1990, average combined scale factor used was 0.9999353):

For a point of reference, commence at the Northwest corner of said Section 31, (N ' 1,368,650.00, E ' 670,102.64); thence N88E05'11"E, along the north line of the Northwest 1/4 of

said Section 31, a distance of 2511.39 feet to a point on the Southeasterly right-of-way line of State Road 33 (Lakeland Hills Boulevard), and the Point of Beginning; thence continue N88E05'11"E, along the said North line, a distance of 331.44 feet; thence departing said North line, run S01E54'49"E, a distance of 136.18 feet; thence S51E13'04"W, a distance of 333.46 feet; thence S40E46'42"W, a distance of 430.00 feet; thence S46E47'23"W, a distance of 200.00 feet; thence N89E50'25"W, a distance of 190.00 feet to a point on the West line of the East 2 of the Northwest 1/4 of said Section 31; thence N00E09'35"E, along said West line, a distance of 86.29 feet to a point on the said Southeasterly right-of-way line of State Road 33 (Lakeland Hills Boulevard), and a point on a curve concave Southeasterly, having the following elements: a central angle of 09E07'18", a radius of 5609.22 feet, a chord of 892.05 feet, and a chord bearing of N37E17'44"E; thence through the arc of said curve, along said right-of-way line, a distance of 892.99 feet to a point on the said North line of the Northwest 1/4 of Section 31 and the Point of Beginning.

## **APPENDIX II**

### **Public Involvement and Local Government Participation**

(Initial Consensus Meeting Results)

**Results of the Consensus Meeting  
for  
Tenoroc Fish Management Area  
March 29, 2000  
Lakeland, Florida**

The following items were generated by a group of Astakeholders@ for the state-owned Tenoroc Fish Management Area (FMA). The Consensus Group consisted of the following individuals:

Mr. Ed Sheehan, District Conservationist - WRCS  
Honorable Neil Combee, Board of County Commissioners - Polk County  
Mr. Mark Hebb, District Manager, Florida Division of Forestry  
Mr. Peter Ells, Forester, Florida Division of Forestry  
Mr. Jim Studiale, Assistant Director, Community Development Department, City of Lakeland  
Mr. Ronnie Boutwell, Owner, Green Acres, Inc.  
Mr. Chuck Geanangle, Florida Audubon Society  
Mr. Tim Hartman, Planner, Cargill Fertilizer, Inc.  
Mr. Scott Hardin, Chief of Fisheries Services, Division of Freshwater Fisheries, FWC  
Mr. Phil Chapman, Biological Administrator II, Division of Freshwater Fisheries, FWC  
Mr. Tim King, Biological Scientist IV, Division of Freshwater Fisheries, FWC  
Mr. Danon Moxley, Biological Scientist IV, Division of Freshwater Fisheries, FWC

The ideas represented here were given in response to the question:

**What are the important considerations for the management of natural resources and/or recreational opportunities on Tenoroc FMA?**

Items important to the consensus group are listed in bold face and are not listed in priority order.

1. **Birding Trails:**
  1. Neo-tropical Migrants
  2. Information for the public
2. **Waterfowl and Shore Bird Habitat:**
  1. Management of Water Levels
  2. Small Tract Areas
3. **Control of Exotic Vegetation:**
  1. Cogon grass, soda apple, Brazilian pepper, etc.
4. **Prescribed Fire:**
  1. Frequency!!!

1. Scheduled Frequency
2. Roller Chopping
5. **Tree Planting:**
  1. Properly Timed
  2. To recreate native habitat, e.g., longleaf and slash pine, hardwoods in low-lying areas.
6. **Promotion of Recreational Opportunities:**
  1. Hiking
  2. Riding
  3. Birding
  4. Fishing
7. **Butterflies:**
  1. Habitat
    1. Planting
8. **Reclamation:**
  1. Consult Reclamation Research
9. **Alternative Exotic Control Methods:**
  1. Hogs
    1. Hunting
    2. Trapping
  2. Exotic Plants
    1. Burning and Cattle Leases
    2. Burning, Tilling, Mowing, Herbicides and Planting Native Trees
10. **Alternative Reclamation:**
  1. Wetland Creation
11. **Tilapia Harvest:**
  1. Lease
  2. Poaching Problems
12. **Long-Term Exotic Plant Control:**
  1. Reforestation
13. **Prioritize Exotic Problems**
14. **Access Control:**
  1. Fencing
  2. Signage
15. **Landscape Architecture for Recreational Trails**

16. **Planting for Wildlife Value**
17. **Best Management Practices:**
  1. Cattle
18. **Sod Harvest:**
  1. Revenue Source
  2. Exotic Control
19. **Broaden User Groups:**
  1. Political Support
20. **Improved Access for Non-Fishing Users**
21. **Environmental Education:**
  1. Schools
22. **Habitat Connection:**
  1. Integrated Habitat Network (IHN)

These suggested items were summarized into Management Issues. **Each Management Issue was determined to be of equal importance by the Consensus Group and therefore were not ranked by priority.**

#### MANAGEMENT ISSUES

23. **AQUATIC:**
  1. Sportfishing
    1. Maintain and Expand Current Program Direction
      - (1) Open New Fishing Opportunities
        - (1) Access
          - (1) Roads
          - (2) Boat Ramps
        - (2) Continue Tilapia Harvest Program
      2. Increase Awareness of Sportfishing Opportunities
      3. Increase Outreach Opportunities Related to Recreational Fishing
        - (1) Children/Family Events
    2. Wildlife
      1. Create Waterfowl and Wading Birds Areas
    3. Aquatic Plants
      1. Exotic Plants
        - (1) Continue Aquatic Plant Control Efforts
      2. Native Aquatic Plants
        - (1) Develop and Implement Revegetation Plans
    4. Hydrology/Drainage

1. Continue and Complete Overall Planning
  - (1) Evaluate Alternative Reclamation Scenarios
2. Lake Level Management
  - (1) Water Control Structures

**24. UPLAND:**

1. Management
  1. Reforestation Plan
    - (1) Develop and Implement Plan
      - (1) Include Adequate Tree Diversity
      - (2) Include Long-Term Exotic Control Plan
        - (1) Continue Experimental Control Efforts
  2. Prescribed Fire
    - (1) Develop and Implement a Comprehensive Prescribed Fire Plan for Various Landforms
  3. Wildlife
    - (1) Exotic
      - (1) Consider Feral Pigs Trapping Program
    - (2) Protect Threaten and Endangered Species
      - (1) Improve Habitat
  4. Fencing
    - (1) Contract Boundary Survey
    - (2) Contract Fencing of State-Owned Property
2. Other Public Use
  1. Nature Trails
    - (1) Improve and Maintain Current Trail System
    - (2) Create Additional Trails
    - (3) Link Current Trail System with Other Area Trail Systems, e.g., Van Fleet Trail, Rails to Trail, Lakeland Lake to Lake Trail System, Saddle Creek Trail System, etc.
    - (4) Increase Usage
      - (1) Promote through Florida Trails and Great Florida Birding Trails
  3. Habitat Connection
    1. Establish Tenoroc FMA as portion of Florida Department of Environmental Protection ' s Integrated Habitat Network (IHN)

**25. WETLANDS:**

1. Enhance or Create
  1. Restore Local and Regional Hydrology
  2. Provide Wildlife Benefit

**26. PEOPLE:**

1. Increase Local and Regional Awareness
  1. Promotion
    - (1) Signage
      - (1) More Road Signs, e.g., I-4

- (2) Birding Trail Signs
- (2) Brochures
  - (1) Update and Modernize
  - (2) Make Available at More Locations, e.g., Florida Welcome Centers
- (3) Visitor/Environmental Education Center
  - (1) Develop through Partnerships
    - (1) Private Sponsors
    - (2) Public Sponsors
  - (4) Create More Political Support on State and Local Levels
    - (1) Provide Information on Projects and Issues through Environmental Groups, State Staff, Private Individuals, etc.
- 2. Education/Partnerships
  - (1) Sponsors
    - (1) Polk County
    - (2) Southwest Florida Water Management District
    - (3) Florida Institute of Phosphate Research
    - (4) City of Lakeland
    - (5) Private Corporations or Businesses

27. **MISCELLANEOUS:**
- 1. Florida Institution of Phosphate Research
    - 1. Use As a Resource.

**PUBLIC HEARING REPORT**  
**FOR**  
**TENOROC FMA CONCEPTUAL MANAGEMENT PLAN**  
**HELD BY THE**  
**TENOROC FMA MANAGEMENT ADVISORY GROUP**  
**(December 14, 2000 - Lakeland, Florida)**

The meeting was opened promptly at 6:00 PM by Mr. Danon J. Moxley, Biological Scientist IV, Fish and Wildlife Conservation Commission (Mr. Greg Holder, Regional Director, Southwest Region was unable to attend). Mr. Moxley mentioned that the meeting was being held by the Tenoroc Management Advisory Group (MAG), in compliance with the intent of the Florida Legislature [Chapter 259.032 (10), FS]. Mr. Moxley introduced the attending biologists and supervisory personnel from FWC.

Mr. Moxley presented an overview of the purpose of MAG that included the names of the 12 members that represented various stakeholders, including private citizen and governmental interests. He then proceeded to provide an overview of Tenoroc FMA, its management and funding limitations. This was followed by a presentation of draft goals, objectives, problems, strategies and management intent to be included in the CMP update.

Following the presentation, Mr. Moxley asked for public comment on the information provided. Only two other MAG members were in attendance (Mr. Phil Chapman and Mr. Tim King, both employees of FWC). There were 14 citizens present at the hearing. Although no individual registered to speak, several questions were asked by attendees, and some general discussion took place. Attendees were also advised that they could provide written or verbal comments at any time and were provided Tenoroc FMA address, phone number and Mr. Moxley's e-mail address.

**Specific Points of Interest/Concerns expressed by the Public (Answers given by a representative of FWC):**

- **Complaint:** People running motors larger than 10hp (Lake B & 5 outboard motor restrictions).  
**Response:** We recognized that it is a problem; however, Law Enforcement personnel can't do anything unless they see them doing it. The agency has made a number of cases and is currently evaluating a regulation change in regard to this problem. Staff advised the public that if you carry a cell phone, call in and report any violation.
- **Question:** Why can't the Boy Scouts camp (Primitive) at Tenoroc?  
**Answer:** State Law requires restrooms to be provided and we do not have the money to build additional facilities nor the man-power to maintain them. We also do not have any overnight security on premises in case of emergencies.
- **Comment:** The Lakeland Bass Club expressed interest in volunteering to plant trees or to work on equipment.  
**Response:** Tenoroc staff has in the past arranged for other clubs and/or volunteers to come out and help. Unfortunately, attendance was generally poor; however, Tenoroc staff will continue to use volunteer help when offered. (There was a general discussion on the kinds of jobs a volunteer could do.)
- **Complaint:** Complaints about spraying exotic vegetation and its impact on native vegetation.

**Response:** Staff explained that sometimes there is an impact when native and exotic aquatic vegetation are mixed together; however, the negative consequences are short lived if you have a management plan to treat these problem plants. (This discussion continued and included the reforestation plan developed by DOF.)

- **Question:** When will boat ramp construction occur on the newly acquired Bridgewater tract?

**Answer:** Staff explained that a five-year conceptual plan had been developed for the Bridgewater tract. A major component of this plan was access development including roads and boat ramps.

- **Question:** Why the need to fence the Bridgewater tract?

**Answer:** Staff explained the purpose of a fence is to prevent encroachment by adjacent landowners, and prevent illegal activities.

- **Question:** How can you try to plan for anything when you can't take care of what you currently have?

**Answer:** Staff explained that although funding and staff are limited, operations and recreational opportunities at Tenoroc had been improved and expanded. It was explained that good planning generally produces public interest, followed by funding and staff.

- **Question:** What about funding for other opportunities at Tenoroc, i.e. Hiking & Birding?

**Answer:** The Division of Freshwater Fisheries (DFF) does not have the staff nor funding to expand the existing trails at Tenoroc. Presently, maintenance of trails is a cooperative effort by DFF and the Florida Trails Association. Tenoroc has also become part of the Great Florida Birding Trail and, hopefully, this association will lead to more public notice and additional funding trail expansion.

- **Question:** If there is a need for more advertisement for Tenoroc, should you get in contact with Polk County Tourism Department?

**Response:** We have. We are also trying to have signs placed on I-4. We continue to try and improve our current website.

- **Question:** Why not have parking on Lake B [North] closer to the lake?

**Answer:** The area closer to the lake is usually wet; however, staff would revisit the question to determine if it could be accomplished.

- **Question:** What is the purpose of the creel sheets?

**Answer:** The creel program provides staff with data on angler trends concerning the fisheries at Tenoroc. Since the goal is to provide the angler with quality fishing opportunities, these data are extremely important in development of management strategies.

- **Question:** What are the statistics on Hydrilla Lake?

**Answer:** Angling data shows poor angler success and a reduction in the size of fish caught. Staff is working on determining why, but we are still not sure.

- **Question:** Why is the State of Florida using \$9 million of tax payers money to buy Bridgewater and only gives Tenoroc \$30,000 to manage it?

**Answer:** Unknown; however, we have a five-year plan that we hope will generate additional funds. (The five-year plan was discussed in further detail as well as the need for a dedicated funding source for projects.)

### **Appendix III**

The 1988 Soil Conservation Service (SCS) Tenoroc FMA Soil Survey and Soil Descriptions

taken from

Tenoroc State Recreation Area  
Conceptual Master Plan

Florida Department of Natural Resources

prepared by

Dyer, Riddle, Mills, and Precourt, Inc.

- # 3 - Chandler Fine Sand, 0-5 percent slopes, is a nearly level to gently sloping, excessively drained soil that usually occurs in large areas. This upland soil is usually undulating or gently rolling. The water table is greater than 80 inches year round.
  
- #6 - Eaton Mucky Fine Sand, depressional, is a very poorly drained, wetland soil with a mucky surface, found on low flat areas that are depressional. This soil is affected by a high seasonal water table which, under natural conditions, is within a depth of 10 inches of the surface for periods of 1 to 4 months and above the surface for 6 months or more during most years.
  
- #7 - Pomona Fine Sand is a poorly drained soil found in the flatwood areas of the County. This soil has a water table that rises to within 10 inches of the surface for periods of 1 to 4 months and is within 40 inches for more than 6 months. Special measures are required to overcome excessive wetness for use of septic tank absorption fields.
  
- #8 - Hydraquents, clayey are areas of slicken (colloidal clay) holding ponds. The slickens are the fine textured materials remaining after the phosphate has been removed from the mined material (matrix). The slickens are approximately 5 percent solids and 95 percent water. The slickens are pumped into fairly large holding ponds from 300 to 1,000 acres. Based on studies, the solids are principally clay (about 88%) with montmorillonite the dominant clay material. The dikes around the holding ponds are constructed so that the slickens are relatively easily dewatered.
  
- #9 - Lynne Sand is a poorly drained flatwood soil with a water table usually at depths of 10 to 40 inches. It rises above 10 inches during wet seasons and drops below 40 inches during dry seasons.
  
- #11 - Arents-Water Complex consist of overburden material (material removed to get to the "matrix" material or phosphate bearing strata) piled into mounds or narrow ridges with very steep sides separated by narrow pits that may or may not contain water. The water table of this complex is variable but primarily the arents part has a water table greater than 80 inches from the surface.
  
- #12 - Neilhurst Sand, 1-5 percent slopes, consists of sand tailings from phosphate mining that may have been leveled and with or without slickens added. (Phosphate companies sometimes add some fine to some of the sand tailings by pumping slickens onto the tailings.) Sand tailings are the extracted and discarded sand portion of the material mined for the phosphate. The water table generally is expected to remain below 6 feet.
  
- #13 - Samsula Muck is a very poorly drained, organic soil found in the wetland areas of the County. The water table is at or above the surface for most of the year. In dry seasons, the water table is lower, but seldom falls below a depth of 30 inches. The depth of the muck averages 36 inches.

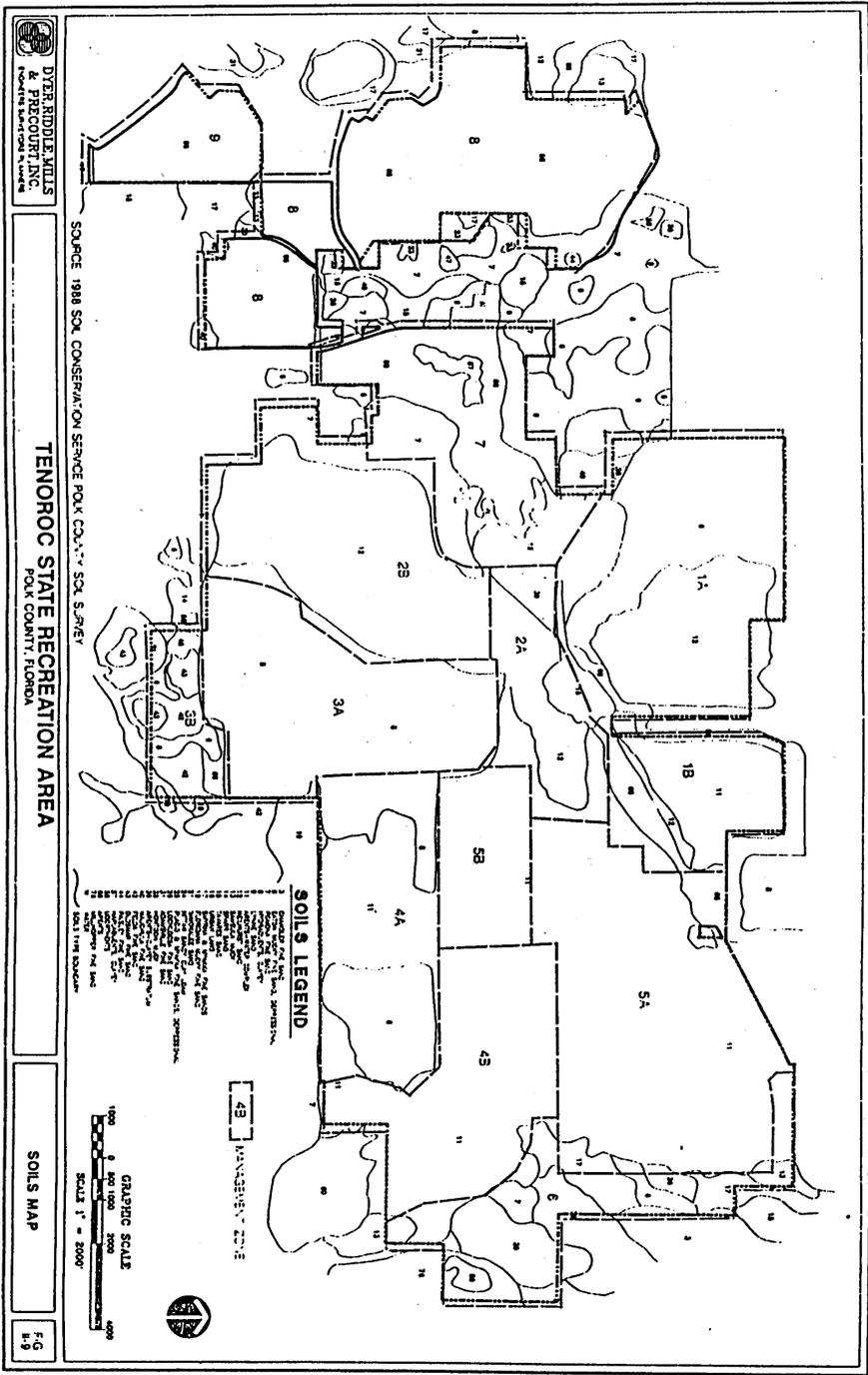
- #14 - Sparr Sand, 0 to 5 percent slopes, is a somewhat poorly drained upland soil with a water table at depths of 20 to 40 inches for periods of 1 to 4 months that rises to within about 20 inches for brief periods.
- #15 - Tavares Fine Sand, 0 to 5 percent slopes is a moderately well drained, upland soil with a water table at a depth of 40 to 80 inches for more than 6 months in most years. In dry seasons it is below 80 inches.
- #16 - Urban Land, consists of areas where the original soil has been modified through cutting, grading, filling, and shaping or has been generally altered for urban development. Major soil properties that originally limited urban uses have been overcome to an acceptable extent. Urban facilities, including paved parking areas, streets, industrial buildings, houses, other structures and underground utilities have been constructed on 75 percent or more of these altered areas. Areas not covered by urban facilities generally have been altered. Identification of soil within these areas is not feasible.
- #17 - Smyrna and Myakka Fine Sands are poorly drained soils found in the flatwood areas of the County. The water table is at depths of less than 10 inches for 1 to 4 months duration in most years and recedes to depths of more than 40 inches during very dry seasons. Special measures are required to overcome excessive wetness for use of septic tank absorption fields.
- #19 - Floridana Mucky Fine Sand, depressional, is a very poorly drained, nearly level soil found in the wetland areas of the County in small to large depressions and along poorly defined drainageways. This soil has a water table at depths of less than 10 inches below the surface and is flooded for more than 6 months during most years.
- #21 - Immokalee Sand is a poorly drained, flatwood soil with a water table at depths of less than 10 inches for 2 months duration in most years, and within depths of 10 to 40 inches for periods of more than 8 months each year. The water table is at depths of more than 40 inches during dry periods.
- #24 - Nittaw Sandy Clay Loam, frequently flooded, is a very poorly drained soil that occurs in drainage ways, depressions and broad flood plains in wetland areas. This soil has a water table within 10 inches of the surface for more than 6 months and is flooded during the rainy season during most years.
- #25 - Placid and Myakka Fine Sands, depressional, are very poorly drained soils that occur in wet depressions and along poorly defined drainageways. soils have water tables at depths of less than 10 inches for more than 6 months and are covered with water for 6 months or more annually.
- #26 - Lochloosa Fine Sand is a somewhat poorly drained, nearly level soil found mostly on lower elevations of uplands. This soil has a water table at depths of 30 to 60 inches for periods of 1 to 4 months during most years. It rises to depths of about 15 inches for 1 to

3 weeks. It recedes to depths of more than 60 inches during drier seasons.

- #31 - Adamsville Fine Sand is a somewhat poorly drained flatwood soil that has a water table at depths of 20 to 40 inches for periods ranging from 2 to 6 months. It is within a depth of 60 inches for more than 9 months in most years.
- #35 - Hontoon Muck is a very poorly drained organic soil that occurs in swamps and poorly defined drainage ways in the wetland areas of the County. The water table is at or above the surface except during extended or dry periods. The depth of the muck averages 60 to 80 inches.
- #39 - Arents-Clayey Substratum consists of areas that have been mined for phosphate. Typically, it consists of 2 to 4 feet of sand or sandy loam over several feet of clay in the old open pits.
- #40 - Wauchula Fine Sand is a poorly drained nearly level soil which occurs on low, broad ridges and slight depressions in the flatwoods. This soil has a water table at depths of less than 10 inches for 1 to 4 months during most years and it is at depths of 10 to 40 inches for periods as long as 6 months. During the driest season, it recedes to depths of more than 40 inches. Special measures are required to overcome excessive wetness for use of septic tank absorption fields.
- #42 - Felda Fine Sand is a poorly drained, nearly level soil found on broad low flats and in sloughs and poorly defined drainageways in the flatwoods. This soil has a water table at depths of 0 to 10 inches from the surface for 2 to 6 months each year.
- #43 - Oldsmar Fine Sand is a poorly drained, nearly level flatwood soil that has a water table at depths of less than 10 inches for 1 to 3 months during the wet season in most years, and it is within 10 to 40 inches during extended dry seasons.
- #44 - Paisley Fine Sand consists of poorly drained, nearly level soils found in the flatwood areas of the County. This soil has a water table at depths of less than 10 inches for 2 to 6 months each year. Due to high clay content at shallow depths, a perched water table often occurs during the rainy season that adversely effects the use of septic tank absorption fields.
- #57 - Haplaquents, clayey are areas of slickens that have been dewatered or dried out. These areas are undergoing gradual change as they are dewatered. After being dewatered, these areas will support plants, but from a practical standpoint, they change significantly in a period of a few years.
- #58 - Udorthents, excavated are pits formed usually from the mining of clay or limestone. .
- #68 - Arents, 0 to 5 percent slopes consist of overburden from phosphate mining that has been leveled to 0 to 5 percent slopes. Overburden consists of soil material that overlies the matrix or phosphate bearing strata. The soils are quite variable due to mixing and

mounding by earth moving machinery. The soil is a mixture of brown and yellowish sandy clay, sandy loam, loamy sand or sand. The water table is within 60 inches for 2 to 6 months during most years in most areas.

- #76 - Millhopper Fine Sand is a moderately well drained soil found in the upland areas of the County. This soil has a water table at a depth of 40 to 60 inches for 1 to 4 months and below 60 inches for the remainder of the year. The slopes associated with this soil range from 0 to 5 percent.



## **Appendix IV**

Florida Department of State  
Division of Historical Resources

Historical Property Review Letter  
and  
Management Procedures

December 17, 2001

DIVISIONS OF FLORIDA DEPARTMENT OF STATE  
Office of the Secretary  
Office of International Relations  
Division of Elections  
Division of Corporations  
Division of Cultural Affairs  
Division of Historical Resources  
Division of Library and Information Services  
Division of Licensing  
Division of Administrative Services



FLORIDA DEPARTMENT OF STATE  
**Katherine Harris**  
Secretary of State  
DIVISION OF HISTORICAL RESOURCES

MEMBER OF THE FLORIDA CABINET  
State Board of Education  
Trustees of the Internal Improvement Trust Fund  
Administration Commission  
Florida Land and Water Adjudicatory Commission  
Siting Board  
Division of Bond Finance  
Department of Revenue  
Department of Law Enforcement  
Department of Highway Safety and Motor Vehicles  
Department of Veterans' Affairs

Mr. Danon J. Moxley  
Tenoroc Fish Management Area  
Florida Fish and Wildlife Conservation Commission  
3829 Tenoroc Mine Road  
Lakeland, Florida 33805-8547

December 17, 2001

RE: DHR Project File No. 2001-10463  
Received by DHR November 15, 2001  
Request for Land Management Plan Information  
Tenoroc Fish Management Area  
Polk County, Florida

Dear Mr. Moxley:

In accordance with this agency's responsibilities under Sections 253.034(4) and 259.032, Florida Statutes, we have reviewed the information in the Florida Master Site File to determine whether any historic properties are recorded in the referenced management area, and also to determine the potential for such resources which are presently unrecorded to be located within it.

A review of the Florida Master Site File indicates that there appears to be four archaeological sites (8PO1528, 8PO1529, 8PO6152 and 8PO6446) recorded within the management area (see map). All four sites have previously been evaluated by this office and determined to be ineligible for listing in the National Register of Historic Places.

However, data from environmentally similar areas in Polk County indicate that additional archaeological and historic sites are likely to occur in the management area. It is, therefore, the opinion of this office that there is a reasonable probability of historic properties potentially eligible for listing in the National Register, or otherwise of historical or archaeological value, to be located within the management area.

It is, therefore, the recommendation of this office that in compliance with Section 259 Florida Statutes as well as Section 267.061, Florida Statutes, prior to initiating any land clearing or ground disturbing activities within the management area, the proposed project activities should be submitted to this agency for review and comment to determine the impact of the proposed project(s) on historic properties. The contact person for such reviews is Ms. Susan Harp, Historic Preservation Planner, at the address listed below.

500 S. Bronough Street • Tallahassee, FL 32399-0250 • <http://www.flheritage.com>

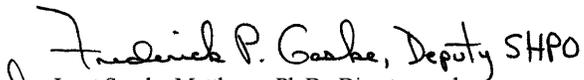
<input type="checkbox"/> Director's Office (850) 245-6300 • FAX: 245-6435	<input type="checkbox"/> Archaeological Research (850) 245-6444 • FAX: 245-6436	<input checked="" type="checkbox"/> Historic Preservation (850) 245-6333 • FAX: 245-6437	<input type="checkbox"/> Historical Museums (850) 245-6400 • FAX: 245-6433
<input type="checkbox"/> Palm Beach Regional Office (561) 279-1475 • FAX: 279-1476	<input type="checkbox"/> St. Augustine Regional Office (904) 825-5045 • FAX: 825-5044	<input type="checkbox"/> Tampa Regional Office (813) 272-3843 • FAX: 272-2340	

Mr. Moxley  
December 17, 2001  
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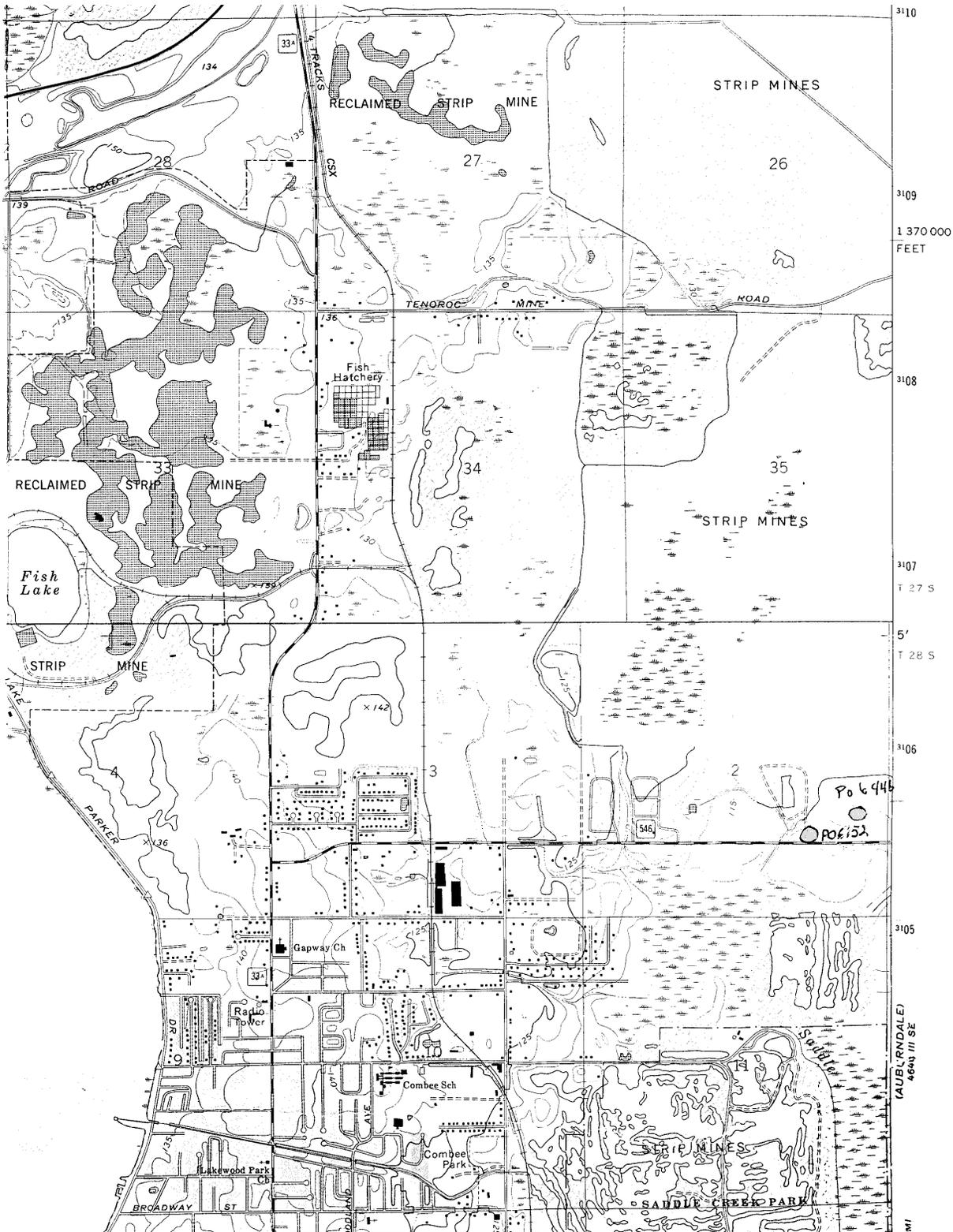
We have enclosed for your use a copy of "Management Procedures for Archaeological and Historical Sites and Properties on State-Owned or Controlled Lands." This document should be referred to where appropriate in your land management plan and attached to it.

If you have any questions concerning our comments, please contact Scott Edwards, Historic Preservation Planner, by electronic mail [sedwards@mail.dos.state.fl.us](mailto:sedwards@mail.dos.state.fl.us), or at 850-245-6333 or 800-847-7278.

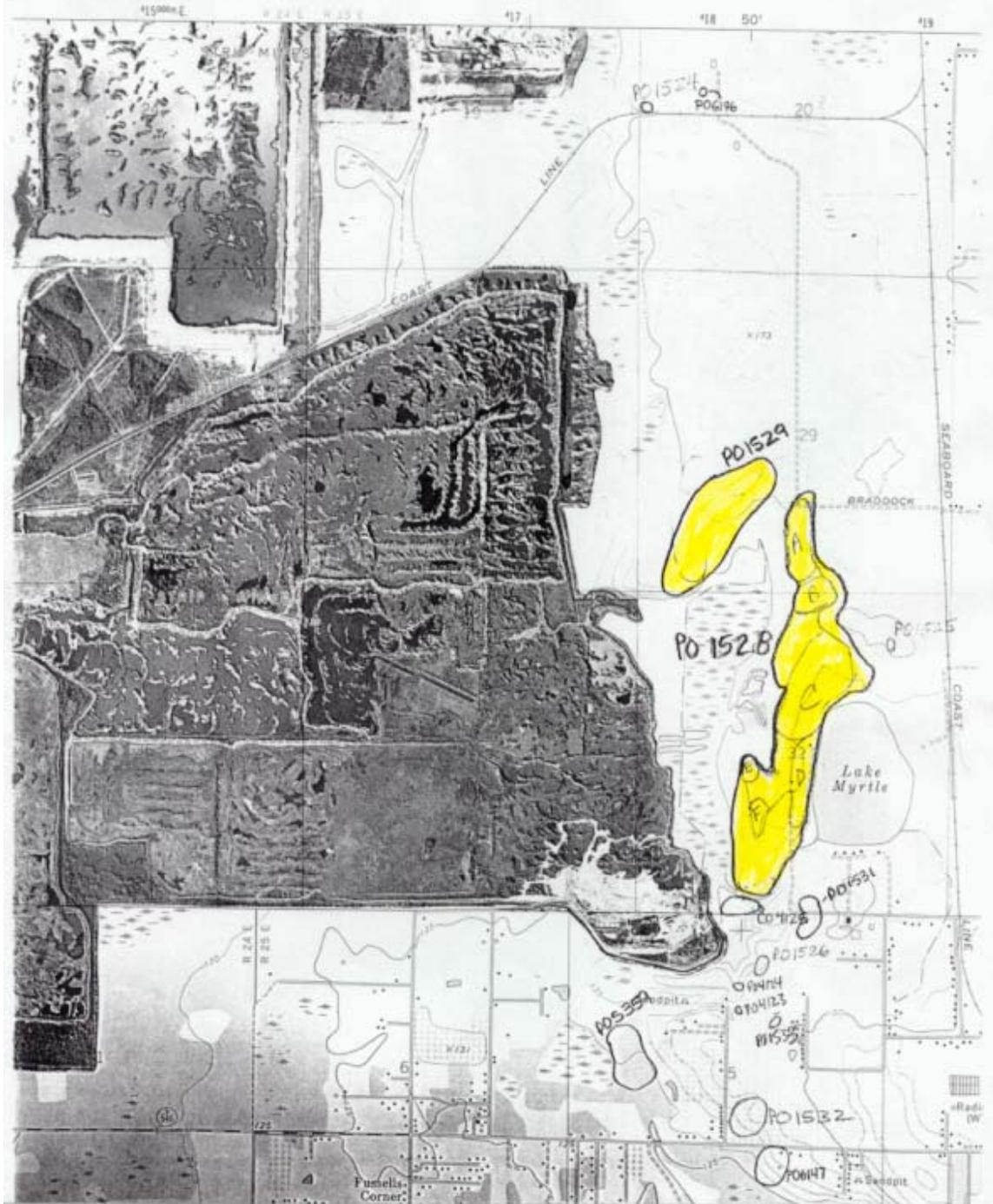
Sincerely,

  
Janet Snyder Matthews, Ph.D., Director, and  
State Historic Preservation Officer

Enclosures



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY



**MANAGEMENT PROCEDURES FOR  
ARCHAEOLOGICAL AND HISTORICAL SITES AND PROPERTIES  
ON STATE - OWNED OR CONTROLLED LANDS**  
(revised August, 1995)

A. GENERAL DISCUSSION

Archaeological and historic sites are defined collectively in 267.021(3), F.S., as "historic properties" or "historic resources". They have several essential characteristics which must be recognized in a management program.

First of all, they are a finite and non-renewable resource. Once destroyed, presently existing resources, including buildings, other structures, shipwreck remains, archaeological sites and other objects of antiquity, cannot be renewed or revived. Today, sites in the State of Florida are being destroyed by all kinds of land development, inappropriate land management practices, erosion, looting, and to a minor extent even by well-intentioned professional scientific research (e.g., archaeological excavation). Measures must be taken to ensure that some of these resources will be preserved for future study and appreciation.

Secondly, sites are unique because individually they represent the tangible remains of events which occurred at a specific time and place.

Thirdly, while sites uniquely reflect localized events, these events and the origin of particular sites are related to conditions and events in other times and places. Sites can be understood properly only in relation to their natural surroundings and the activities of inhabitants of other sites. Managers must be aware of this "systemic" character of historic and archaeological sites. Also, it should be recognized that archaeological sites are time capsules for more than cultural history; they preserve traces of past biotic communities, climate, and other elements of the environment that may be of interest to other scientific disciplines.

Finally, the significance of sites, particularly archaeological ones, derives not only from the individual artifacts within them, but equally from the spatial arrangement of those artifacts in both horizontal and vertical planes. When archaeologists excavate, they recover, not merely objects, but also a record of the positions of these objects in relation to one another and their containing matrix (e.g., soil strata). Much information is sacrificed if the so-called "context" of archaeological objects is destroyed or not recovered, and this is what archaeologists are most concerned about when a site is threatened with destruction or damage. The artifacts themselves can be recovered even after a site is heavily disturbed, but the context - the vertical and horizontal relationships - cannot. Historic structures also contain a wealth of cultural (socio-economic) data which can be lost if historically sensitive maintenance, restoration or rehabilitation procedures are not implemented, or if they are demolished or extensively altered without appropriate documentation. Lastly, it should not be forgotten that historic structures often have associated potentially significant historic archaeological features which must be considered in land management decisions.

B. STATUTORY AUTHORITY

Chapter 253, Florida Statutes ("State Lands") directs the preparation of "single-use" or "multiple-use" land management plans for all state-owned lands and state-owned sovereignty submerged lands. In this document, 253.034(4), F.S., specifically requires that "all management plans, whether for single-use or multiple-use properties, shall specifically describe how the managing agency plans to identify, locate, protect and preserve, or otherwise use fragile non-

renewable resources, such as archaeological and historic sites, as well as other fragile resources..."

Chapter 267, Florida Statutes is the primary historic preservation authority of the state. The importance of protecting and interpreting archaeological and historic sites is recognized in 267.061(1)(a), F.S.:

The rich and unique heritage of historic properties in this state, representing more than 10,000 years of human presence, is an important legacy to be valued and conserved for present and future generations. The destruction of these nonrenewable historic resources will engender a significant loss to the state's quality of life, economy, and cultural environment. It is therefore declared to be state policy to:

1. Provide leadership in the preservation of the state's historic resources; [and]
2. Administer state-owned or state-controlled historic resources in a spirit of stewardship and trusteeship;...

Responsibilities of the Division of Historical Resources in the Department of State pursuant to 267.061(3), F.S., include the following:

1. Cooperate with federal and state agencies, local governments, and private organizations and individuals to direct and conduct a comprehensive statewide survey of historic resources and to maintain an inventory of such responses.
2. Develop a comprehensive statewide historic preservation plan.
3. Identify and nominate eligible properties to the *National Register of Historic Places* and otherwise administer applications for listing properties in the National Register of Historic Places.
4. Cooperate with federal and state agencies, local governments, and organizations and individuals to ensure that historic resources are taken into consideration at all levels of planning and development.
5. Advise and assist, as appropriate, federal and state agencies and local governments in carrying out their historic preservation responsibilities and programs.
6. Carry out on behalf of the state the programs of the National Historic Preservation Act of 1966, as amended, and to establish, maintain, and administer a state historic preservation program meeting the requirements of an approved program and fulfilling the responsibilities of state historic preservation programs as provided in subsection 101(b) of that act.
7. Take such other actions necessary or appropriate to locate, acquire, protect, preserve, operate, interpret, and promote the location, acquisition, protection, preservation, operation, and interpretation of historic resources to foster an appreciation of Florida history and culture. Prior to the acquisition, preservation, interpretation, or operation of a historic property by a state agency, the Division shall be provided a reasonable opportunity to review and comment on the proposed undertaking and shall determine that there exists historic authenticity and a feasible means of providing for the preservation, interpretation and operation of such property.
8. Establish professional standards for the preservation, exclusive of acquisition, of historic resources in state ownership or control.

9. Establish guidelines for state agency responsibilities under subsection (2).

Responsibilities of other state agencies of the executive branch, pursuant to 267.061(2), F.S., include:

1. Each state agency of the executive branch having direct or indirect jurisdiction over a proposed state or state-assisted undertaking shall, in accordance with state policy and prior to the approval of expenditure of any state funds on the undertaking, consider the effect of the undertaking on any historic property that is included in, or eligible for inclusion in, the *National Register of Historic Places*. Each such agency shall afford the division a reasonable opportunity to comment with regard to such an undertaking.
2. Each state agency of the executive branch shall initiate measures in consultation with the division to assure that where, as a result of state action or assistance carried out by such agency, a historic property is to be demolished or substantially altered in a way which adversely affects the character, form, integrity, or other qualities which contribute to [the] historical, architectural, or archaeological value of the property, timely steps are taken to determine that no feasible and prudent alternative to the proposed demolition or alteration exists, and, where no such alternative is determined to exist, to assure that timely steps are taken either to avoid or mitigate the adverse effects, or to undertake an appropriate archaeological salvage excavation or other recovery action to document the property as it existed prior to demolition or alteration.
3. In consultation with the division [of Historical Resources], each state agency of the executive branch shall establish a program to locate, inventory, and evaluate all historic properties under the agency's ownership or control that appear to qualify for the National Register. Each such agency shall exercise caution to assure that any such historic property is not inadvertently transferred, sold, demolished, substantially altered, or allowed to deteriorate significantly.
4. Each state agency of the executive branch shall assume responsibility for the preservation of historic resources which are owned or controlled by such agency. Prior to acquiring, constructing, or leasing buildings for the purpose of carrying out agency responsibilities, the agency shall use, to the maximum extent feasible, historic properties available to the agency. Each agency shall undertake, consistent with preservation of such properties, the mission of the agency, and the professional standards established pursuant to paragraph (3)(k), any preservation actions necessary to carry out the intent of this paragraph.
5. Each state agency of the executive branch, in seeking to acquire additional space through new construction or lease, shall give preference to the acquisition or use of historic properties when such acquisition or use is determined to be feasible and prudent compared with available alternatives. The acquisition or use of historic properties is considered feasible and prudent if the cost of purchase or lease, the cost of rehabilitation, remodeling, or altering the building to meet compliance standards and the agency's needs, and the projected costs of maintaining the building and providing utilities and other services is less than or equal to the same costs for available alternatives. The agency shall request the division to assist in determining if the acquisition or use of a historic property is feasible and prudent. Within 60 days after making a determination that additional space is needed, the agency shall request the division to assist in identifying buildings within the appropriate geographic area that are historic properties suitable for acquisition or lease by the agency, whether or not such properties are in need of repair, alteration, or addition.
6. Consistent with the agency's mission and authority, all state agencies of the executive branch shall carry out agency programs and projects, including those under which any state

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page 3

assistance is provided, in a manner which is generally sensitive to the preservation of historic properties and shall give consideration to programs and projects which will further the purposes of this section.

Section 267.12 authorizes the Division to establish procedures for the granting of research permits for archaeological and historic site survey or excavation on state-owned or controlled lands, while Section 267.13 establishes penalties for the conduct of such work without first obtaining written permission from the Division of Historical Resources. The Rules of the Department of State, Division of Historical Resources, for research permits for archaeological sites of significance are contained in Chapter 1A-32,F.A.C.

Another Florida Statute affecting land management decisions is Chapter 872, F.S. Section 872.02, F.S., pertains to marked grave sites, regardless of age. Many state-owned properties contain old family and other cemeteries with tombstones, crypts, etc. Section 872.05, F.S., pertains to unmarked human burial sites, including prehistoric and historic Indian burial sites. Unauthorized disturbance of both marked and unmarked human burial sites is a felony.

### C. MANAGEMENT POLICY

The choice of a management policy for archaeological and historic sites within state-owned or controlled lands obviously depends upon a detailed evaluation of the characteristics and conditions of the individual sites and groups of sites within those tracts. This includes an interpretation of the significance (or potential significance) of these sites, in terms of social and political factors, as well as environmental factors. Furthermore, for historic structures architectural significance must be considered, as well as any associated historic landscapes.

Sites on privately owned lands are especially vulnerable to destruction, since often times the economic incentives for preservation are low compared to other uses of the land areas involved. Hence, sites in public ownership have a magnified importance, since they are the ones with the best chance of survival over the long run. This is particularly true of sites which are state-owned or controlled, where the basis of management is to provide for land uses that are minimally destructive of resource values.

**It should be noted that while many archaeological and historical sites are already recorded within state-owned or controlled lands, the majority of the uplands areas and nearly all of the inundated areas have not been surveyed to locate and assess the significance of such resources. The known sites are, thus, only an incomplete sample of the actual resources - i.e., the number, density, distribution, age, character and condition of archaeological and historic sites - on these tracts. Unfortunately, the lack of specific knowledge of the actual resources prevents formulation of any sort of detailed management or use plan involving decisions about the relative historic value of individual sites. For this reason, a generalized policy of conservation is recommended until the resources have been better addressed.**

The generalized management policy recommended by the Division of Historical Resources includes the following:

1. State land managers shall coordinate all planned activities involving known archaeological or historic sites or potential site areas closely with the Division of Historical Resources in order to prevent any kind of disturbance to significant archaeological or historic sites that may exist on the tract. Under 267.061(1)(b), F.S., the Division of Historical Resources is vested with title to archaeological and historic resources abandoned on state lands and is responsible for administration and protection of such resources. The Division will cooperate with the land

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manager in the management of these resources. Furthermore, provisions of 267.061(2) and 267.13, F.S., combined with those in 267.061(3) and 253.034(4), F.S., require that other managing (or permitting) agencies coordinate their plans with the Division of Historical Resources at a sufficiently early stage to preclude inadvertent damage or destruction to known or potentially occurring, presently unknown archaeological and historic sites. The provisions pertaining to human burial sites must also be followed by state land managers when such remains are known or suspected to be present (see 872.02 and 872.05, F.S., and 1A-44, F.A.C.)

2. Since the actual resources are so poorly known, the potential impact of the managing agency's activities on historic archaeological sites may not be immediately apparent. Special field survey for such sites may be required to identify the potential endangerment as a result of particular management or permitting activities. The Division may perform surveys, as its resources permit, to aid the planning of other state agencies in their management activities, but outside archaeological consultants may have to be retained by the managing agency. This would be especially necessary in the cases of activities contemplating ground disturbance over large areas and unexpected occurrences. It should be noted, however, that in most instances Division staff's knowledge of known and expected site distribution is such that actual field surveys may not be necessary, and the project may be reviewed by submitting a project location map (preferably a 7.5 minute U.S.G.S. Quadrangle map or portion thereof) and project descriptive data, including detailed construction plans. To avoid delays, Division staff should be contacted to discuss specific project documentation review needs.
3. In the case of known significant sites, which may be affected by proposed project activities, the managing agency will generally be expected to alter proposed management or development plans, as necessary, or else make special provisions to minimize or mitigate damage to such sites.
4. If in the course of management activities, or as a result of development or the permitting of dredge activities (see 403.918(2)(6)a, F.S.), it is determined that valuable historic or archaeological sites will be damaged or destroyed, the Division reserves the right, pursuant to 267.061(1)(b), F.S., to require salvage measures to mitigate the destructive impact of such activities to such sites. Such salvage measures would be accomplished before the Division would grant permission for destruction of the affected site areas. The funding needed to implement salvage measures would be the responsibility of the managing agency planning the site destructive activity. Mitigation of historic structures at a minimum involves the preparation of measured drawings and documentary photographs. Mitigation of archaeological resources involves the excavation, analysis and reporting of the project findings and must be planned to occur sufficiently in advance to avoid project construction delays. If these services are to be contracted by the state agency, the selected consultant will need to obtain an Archaeological Research Permit from the Division of Historical Resources, Bureau of Archaeological Research (see 267.12, F.S. and Rules 1A-32 and 1A-46 F.A.C.).
5. For the near future, excavation of non-endangered (i.e., sites not being lost to erosion or development) archaeological sites is discouraged. There are many endangered sites in Florida (on both private and public lands) in need of excavation because of the threat of development or other factors. Those within state-owned or controlled lands should be left undisturbed for the present - with particular attention devoted to preventing site looting by "treasure hunters". On the other hand, the archaeological and historic survey of these tracts is encouraged in order to build an inventory of the resources present, and to assess their scientific research potential and historic or architectural significance.

6. The cooperation of land managers in reporting sites to the Division that their field personnel may discover is encouraged. The Division will help inform field personnel from other resource managing agencies about the characteristics and appearance of sites. The Division has initiated a cultural resource management training program to help accomplish this. Upon request the Division will also provide to other agencies archaeological and historical summaries of the known and potentially occurring resources so that information may be incorporated into management plans and public awareness programs (See Management Implementation).
7. Any discovery of instances of looting or unauthorized destruction of sites must be reported to the agent for the Board of Trustees of the Internal Improvement Trust Fund and the Division so that appropriate action may be initiated. When human burial sites are involved, the provisions of 872.02 and 872.05, F. S. and Rule 1A-44, F.A.C., as applicable, must also be followed. Any state agent with law enforcement authority observing individuals or groups clearly and incontrovertibly vandalizing, looting or destroying archaeological or historic sites within state-owned or controlled lands without demonstrable permission from the Division will make arrests and detain those individuals or groups under the provisions of 267.13, 901.15, and 901.21, F.S., and related statutory authority pertaining to such illegal activities on state-owned or controlled lands. County Sheriffs' officers are urged to assist in efforts to stop and/or prevent site looting and destruction.

In addition to the above management policy for archaeological and historic sites on state-owned land, special attention shall be given to those properties listed in the *National Register of Historic Places* and other significant buildings. The Division recommends that the *Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings* (Revised 1990) be followed for such sites.

The following general standards apply to all treatments undertaken on historically significant properties.

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
2. The historic character of a property shall be retained and preserved. The removal of historic materials or alterations of features and spaces that characterize a property shall be avoided.
3. Each property shall be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.
6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.

7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
8. Significant archaeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
9. New additions, exterior alterations, or related new construction shall not destroy materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired. (see *Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings* [Revised 1990]).

Division of Historical Resources staff are available for technical assistance for any of the above listed topics. It is encouraged that such assistance be sought as early as possible in the project planning.

#### D. MANAGEMENT IMPLEMENTATION

As noted earlier, 253.034(4), F.S., states that "all management plans, whether for single-use or multiple-use properties, shall specifically describe how the managing agency plans to identify, locate, protect and preserve, or otherwise use fragile non-renewable resources, such as archaeological and historic sites..." The following guidelines should help to fulfill that requirement.

1. All land managing agencies should contact the Division and send U.S.G.S. 7.5 minute quadrangle maps outlining the boundaries of their various properties.
2. The Division will in turn identify site locations on those maps and provide descriptions for known archaeological and historical sites to the managing agency.
3. Further, the Division may also identify on the maps areas of high archaeological and historic site location probability within the subject tract. These are only probability zones, and sites may be found outside of these areas. Therefore, actual ground inspections of project areas may still be necessary.
4. The Division will send archaeological field recording forms and historic structure field recording forms to representatives of the agency to facilitate the recording of information on such resources.
5. Land managers will update information on recorded sites and properties.
6. Land managers will supply the Division with new information as it becomes available on previously unrecorded sites that their staff locate. The following details the kind of information the Division wishes to obtain for any new sites or structures which the land managers may report:

##### A. Historic Sites

- (1) Type of structure (dwelling, church, factory, etc.).
- (2) Known or estimated age or construction date for each structure and addition.
- (3) Location of building (identify location on a map of the property, and building placement, i.e., detached, row, etc.).
- (4) General Characteristics: (include photographs if possible) overall shape of plan (rectangle, "L" "T" "H" "U", etc.); number of stories; number of vertical divisions of bays; construction materials (brick, frame, stone, etc.); wall finish (kind of bond, coursing, shingle, etc.); roof shape.
- (5) Specific features including location, number and appearance of:
  - (a) Important decorative elements;
  - (b) Interior features contributing to the character of the building;
  - (c) Number, type, and location of outbuildings, as well as date(s) of construction;
  - (d) Notation if property has been moved;
  - (e) Notation of known alterations to building.

#### B. Archaeological Sites

- (1) Site location (written narrative and mapped location).
  - (2) Cultural affiliation and period.
  - (3) Site type (midden, burial mound, artifact scatter, building rubble, etc.)
  - (4) Threats to site (deterioration, vandalism, etc.).
  - (5) Site size (acreage, square meters, etc.).
  - (6) Artifacts observed on ground surface (pottery, bone, glass, etc.).
  - (7) Description of surrounding environment.
7. No land disturbing activities should be undertaken in areas of known archaeological or historic sites or areas of high site probability without prior review by the Division early in the project planning.
  8. Ground disturbing activities may proceed elsewhere but land managers should stop disturbance in the immediate vicinity of artifact finds and notify the Division if previously unknown archaeological or historic remains are uncovered. The provisions of Chapter 872, F.S., must be followed when human remains are encountered.
  9. Excavation and collection of archaeological and historic sites on state lands without a permit from the Division is a violation of state law and shall be reported to a law enforcement officer. The use of metal detectors to search for historic artifacts shall be prohibited on state lands except when authorized in a 1A-32, F.A.C., research permit from the Division.
  10. Interpretation and visitation which will increase public understanding and enjoyment of archaeological and historic sites without site destruction or vandalism is strongly encouraged.

11. Development of interpretive programs including trails, signage, kiosks, and exhibits is encouraged and should be coordinated with the Division.
12. Artifacts found or collected on state lands are by law the property of the Division. Land managers shall contact the Division whenever such material is found so that arrangements may be made for recording and conservation. This material, if taken to Tallahassee, can be returned for public display on a long term loan.

E. ADMINISTERING AGENCY

Questions relating to the treatment of archaeological and historic resources on state lands may be directed to:

Compliance Review Section  
Bureau of Historic Preservation  
Division of Historical Resources  
R. A. Gray Building  
500 South Bronough Street  
Tallahassee, Florida 32399-0250

Contact Person:  
**Scott B. Edwards**  
Historic Preservation Planner  
Telephone (850) 245-6333  
Suncom 205-6333  
FAX (850) 245-6437

## **Appendix V**

List of Wildlife Species

Observed at

Tenoroc Fish Management Area

2001

**WILDLIFE SPECIES THAT HAVE BEEN OBSERVED AT  
TENOROC FISH MANAGEMENT AREA**

**2001**

Common Name	Scientific Name	Species Known to be Present	Federal *	Status State **
<u>MAMMALS</u>				
ARMADILLO	<i>Dasyurus novemcinctus</i>	x		
BOBCAT	<i>Lynx rufus</i>	x		
COTTON MOUSE	<i>Peromyscus gossypinus</i>	x		
COTTONTAIL RABBIT	<i>Sylvilagus floridanus</i>	x		
COTTON RAT	<i>Sigmodon hispidus</i>	x		
FERAL HOG	<i>Sus scrofa</i>	x		
FLORIDA MOUSE	<i>Peromyscus floridanus</i>	x	N	LS
RED FOX	<i>Vulpes vulpes</i>	x		
GRAY FOX	<i>Urocyon cinereoargenteus</i>	x		
GRAY SQUIRREL	<i>Sciurus carolinensis</i>	x		
FOX SQUIRREL	<i>Sciurus niger</i>	x		
MARSH RABBIT	<i>Sylvilagus palustris</i>	x		
OPOSSUM	<i>Didelphis virginiana</i>	x		
RACCOON	<i>Procyon lotor</i>	x		
RIVER OTTER	<i>Lutra canadensis</i>	x		
STRIPED SKUNK	<i>Mephitis mephitis</i>	x		
WHITE-TAILED DEER	<i>Odocoileus virginianus</i>	x		
<u>BIRDS</u>				
AMERICAN BITTERN	<i>Botaurus lentiginosus</i>	x		
AMERICAN COOT	<i>Fulica americana</i>	x		
AMERICAN ROBIN	<i>Turdus migratorius</i>	x		
AMERICAN KESTREL	<i>Falco sparverius</i>	x		
ANHINGA	<i>Anhinga anhinga</i>	x		
BALD EAGLE	<i>Haliaeetus leucocephalus</i>	x	LT	LT
BARN OWL	<i>Tyto alba</i>	x		
BARRED OWL	<i>Strix varia</i>	x		
BELTED KINGFISHER	<i>Megaceryle alcyon</i>	x		
BLACK-CROWNED NIGHT HERON	<i>Nycticorax nycticorax</i>	x		
BLACK DUCK	<i>Anas rubripes</i>	x		
BLACK-NECKED STILT	<i>Himantopus mexicanus</i>	x		
BLACK VULTURE	<i>Coragyps atratus</i>	x		
BLUE-GRAY GNATCATCHER	<i>Poliophtila caerulea</i>	x		
BLUE JAY	<i>Cyanocitta cristata</i>	x		
BLUE-WINGED TEAL	<i>Anas discors</i>	x		
BOAT-TAILED GRACKLE	<i>Quiscalus major</i>	x		
BOBWHITE QUAIL	<i>Colinus virginianus</i>	x		
BURROWING OWL	<i>Athene cunicularia</i>	x	N	LS
CARDINAL	<i>Cardinalis cardinalis</i>	x		
CATTLE EGRET	<i>Bubulcus ibis</i>	x		
CEDAR WAXWING	<i>Bombycilla cedrorum</i>	x		
CHUCK-WILLS WIDOW	<i>Caprimulgus carolinensis</i>	x		

Common Name	Scientific Name	Species Known to be Present	Status	
			Federal *	State **
CAROLINA WREN	<i>Thryothorus ludovicianus</i>	x		
COMMON CROW	<i>Corvus brachyrhynchos</i>	x		
COMMON MOORHEN	<i>Gallinula chloropus</i>	x		
COMMON SNIFE	<i>Capella gallinago</i>	x		
COMMON YELLOW THROAT	<i>Geothlypis trichas</i>	x		
COOPERS HAWK	<i>Accipiter cooperii</i>	x		
DOUBLE-CRESTED CORMORANT	<i>Phalacrocorax auritus</i>	x		
EASTERN PHOEBE	<i>Sayornis phoebe</i>	x		
EASTERN MEADOWLARK	<i>Sturnella magna</i>	x		
FISH CROW	<i>Corvus ossifragus</i>	x		
GLOSSY IBIS	<i>Plegadis falcinellus</i>	x		
GRAY CATBIRD	<i>Dumetella carolinensis</i>	x		
GREAT BLUE HERON	<i>Ardea herodias</i>	x		
GREAT EGRET	<i>Casmerodius albus</i>	x		
GREAT HORNED OWL	<i>Bubo virginianus</i>	x		
GREEN-BACKED HERON	<i>Butorides striatus</i>	x		
GREEN-WINGED TEAL	<i>Anas discors</i>	x		
GROUND DOVE	<i>Columbina passerina</i>	x		
HOODED MERGANSER	<i>Lophodytes cucullatus</i>	x		
KILLDEER	<i>Charadrius vociferus</i>	x		
KING RAIL	<i>Rallus elegans</i>	x		
LAUGHING GULL	<i>Larus atricilla</i>	x		
LEAST BITTERN	<i>Ixobrychus exilis</i>	x		
LOGGERHEAD SHRIKE	<i>Lanius ludovicianus</i>	x		
LIMPKIN	<i>Aramus guarauna</i>	N	LS	
LITTLE BLUE HERON	<i>Egretta caerulea</i>	x		
MALLARD	<i>Anas platyrhynchos</i>	x		
MARSH HAWK	<i>Circus cyaneus</i>	x		
MARSH WREN	<i>Cistothorus palustris</i>	x		
MOCKING BIRD	<i>Mimus polyglottos</i>	x		
MOTTLED DUCK, FLORIDA DUCK	<i>Anas fulvigula</i>	x		
MUSCOVY DUCK	<i>Anas sp.</i>	x		
NORTHERN CARDINAL	<i>Cardinalis cardinalis</i>	x		
NORTHERN PARULA	<i>Parula americana</i>	x		
NORTHERN SHOVELER	<i>Anas carolinensis</i>	x		
NORTHERN WATERTHRUSH	<i>Sciurus noveboracensis</i>	x		
OSPREY	<i>Pandion haliaetus</i>	x		
PIED-BILLED GREBE	<i>Podilymbus podiceps</i>	x		
PILEATED WOODPECKER	<i>Dryocopus pileatus</i>	x		
PINE WARBLER	<i>Dendroica sinus</i>	x		
PROTHONOTARY WARBLER	<i>Protonotaria citrea</i>	x		
PURPLE GALLINULE	<i>Porphyryla martinica</i>	x		
RED-BELLIED WOODPECKER	<i>Centurus carolinus</i>	x		
RED-SHOULDERED HAWK	<i>Buteo lineatus</i>	x		
RED-TAILED HAWK	<i>Buteo jamaicensis</i>	x		
RED-WINGED BLACKBIRD	<i>Agelaius phoeniceus</i>	x		
RING-BILLED GULL	<i>Larus delawarensis</i>	x		
RING-NECKED DUCK	<i>Anthya collaris</i>	x		
ROSEATE SPOONBILL	<i>Ajaia ajaja</i>	x		
RUFIOUS-SIDED TOWHEE	<i>Pipilo erythrophthalmus</i>	x		
SANDHILL CRANE	<i>Grus candensis</i>	x	N	LT
SAVANNAH SPARROW	<i>Passerculus sandwichensis</i>	x		
SHARP-SHINNED HAWK	<i>Accipiter striatus</i>	x		

Common Name	Scientific Name	Species Known to be Present	Status	
			Federal *	State **
SNOWY EGRET	<i>Egretta thula</i>	x	N	LS
SWAINSON'S WARBLER	<i>Limnothlypis swainsonii</i>	x		
SWAMP SPARROW	<i>Melospiza georgiana</i>	x		
TREE SWALLOW	<i>Iridoprocne bicolor</i>	x		
TRICOLORED HERON	<i>Egretta tricolor</i>	x	N	LS
TURKEY VULTURE	<i>Cathartes aura</i>	x		
TURKEY	<i>Meleagris gallopavo</i>	x		
WARBLERS	<i>Dendroica</i> sp.	x		
WHIP-POOR-WILL	<i>Caprimulgus vociferus</i>	x		
WHITE-EYED VIREO	<i>Vireo griseus</i>	x		
WHITE IBIS	<i>Eudocimus albus</i>	x	N	LS
WOOD DUCK	<i>Aix sponsa</i>	x		
WOOD STORK	<i>Mycteria americana</i>	x	LE	LE
WOOD THRUSH	<i>Hylocichla mustelina</i>	x		
YELLOW-THROATED WARBLER	<i>Dendroica dominica</i>	x		

### REPTILES

AMERICAN ALLIGATOR	<i>Alligator mississippiensis</i>	x	T(S/A)	LS
BANDED WATER SNAKE	<i>Nerodia fasciata</i>	x		
BLACK RACER	<i>Coluber constrictor</i>	x		
BROWN SNAKE	<i>Storeria dekayi</i>	x		
BROWN WATER SNAKE	<i>Nerodia taxispilota</i>	x		
CORAL SNAKE	<i>Micrurus fulvius</i>	x		
CORN SNAKE	<i>Elaphe g. guttata</i>	x		
EASTERN BOX TURTLE	<i>Terrapene carolina</i>	x		
EASTERN KINGSLAKE	<i>Lampropeltis g. getulus</i>	x		
EASTERN COTTONMOUTH	<i>Agkistrodon piscivorus</i>	x		
EASTERN DIAMONDBACK RATTLESNAKE	<i>Crotalus adamanteus</i>	x		
EASTERN GARTER SNAKE	<i>Thamnophis s. sirtalis</i>	x		
EASTERN INDIGO SNAKE	<i>Drymarchon corais couperi</i>	x	LT	LT
EASTERN RIBBON SNAKE	<i>Thamnophis sauritus sackeni</i>	x		
FLORIDA COOTER	<i>Chrysemys floridana</i>	x		
FLORIDA KINGSLAKE	<i>Lampropeltis g. floridana</i>	x		
FLORIDA GREEN WATER SNAKE	<i>Nerodia cyclopion floridana</i>	x		
FLORIDA MUD TURTLE	<i>Kinosternon subrubrum</i>	x		
FLORIDA RED-BELLIED TURTLE	<i>Chrysemys nelsonix</i>			
FLORIDA SOFTSHELL TURTLE	<i>Trionyx ferox</i>	x		
FLORIDA SOUTHERN BLACK RACER	<i>Coluber constrictor priapus</i>	x		
GOPHER TORTOISE	<i>Gopherus polyphemus</i>	x	N	LT
GREEN ANOLE	<i>Anolis carolinensis</i>	x		
GROUND SKINK	<i>Scincella lateralis</i>	x		
PYGMY RATTLESNAKE	<i>Sistrurus miliarius</i>	x		
RAT SNAKE	<i>Elaphe obsoleta</i>	x		
RACERUNNER	<i>Cnemidophorus sexlineatus</i>	x		
SCARLET KINGSLAKE	<i>Lampropeltis t. elapsoides</i>	x		
SLENDER GLASS LIZARD	<i>Ophisaurus attenuatus</i>	x		
SOUTHERN RINGNECK SNAKE	<i>Diadophis p. punctatus</i>	x		
STRIPED MUD TURTLE	<i>Kinosternon bauri</i>	x		
YELLOW RAT SNAKE	<i>Elaphe obsoleta</i>	x		

Common Name	Scientific Name	Species Known to be Present	Status	
			Federal *	State **
<b><u>AMPHIBIANS</u></b>				
EASTERN NARROW-MOUTHED FROG	<i>Gastrophryne carolinensis</i>	x		
EASTERN SPADEFOOT TOAD	<i>Scaphiopus holbrooki</i>	x		
GREEN HOUSE FROG	<i>Eleutherodactylus planirostris</i>	x		
GREEN TREE FROG	<i>Hyla cinerea</i>	x		
LESSER SIREN	<i>Siren intermedia</i>	x		
LITTLE GRASS FROG	<i>Limnaeodius ocularis</i>	x		
OAK TOAD	<i>Bufo quercicus</i>	x		
PIG FROG	<i>Rana grylio</i>	x		
SQUIRREL TREEFROG	<i>Hyla squirella</i>	x		
SOUTHERN LEOPARD FROG	<i>Rana sphenoccephala</i>	x		
SOUTHERN TOAD	<i>Bufo terrestris</i>	x		

### **\* FEDERAL LEGAL STATUS**

Definitions derived from U.S. Endangered Species Act of 1973, Sec. 3. Note that the federal status given refers only to Florida populations and that federal status may differ elsewhere.

- LE = Endangered: species in danger of extinction throughout all or a significant portion of its range.
- LT = Threatened: species likely to become Endangered within the foreseeable future throughout all or a significant portion of its range.
- E(S/A) = Endangered due to similarity of appearance to a species which is federally listed such that enforcement personnel have difficulty in attempting to differentiate between the listed and unlisted species.
- T(S/A) = Threatened due to similarity of appearance (see above).
- PE = Proposed for listing as Endangered species.
- PT = Proposed for listing as Threatened species.
- C = Candidate species for which federal listing agencies have sufficient information on biological vulnerability and threats to support proposing to list the species as Endangered or Threatened.
- XN = Non-essential experimental population.
- MC = Not currently listed, but of management concern to USFWS.
- N = Not currently listed, nor currently being considered for listing as Endangered or Threatened.

### **\*\* STATE LEGAL STATUS**

Definitions derived from AFlorida's Endangered Species and Species of Special Concern, Official Lists@ published by Florida Fish and Wildlife Conservation Commission, 1 August 1997, and subsequent updates.

- LE = Endangered: species, subspecies, or isolated population so few or depleted in number or so restricted in range that it is in imminent danger of extinction.
- LT = Threatened: species, subspecies, or isolated population facing a very high risk of extinction in the future.
- LS = Species of Special Concern is a species, subspecies, or isolated population which is facing a moderate risk of extinction in the future.
- PE = Proposed for listing as Endangered.
- PT = Proposed for listing as Threatened.
- PS = Proposed for listing as Species of Special Concern.
- N = Not currently listed, nor currently being considered for listing.

## **Appendix VI**

List of Plant Species at Tenoroc Fish Management Area

Tenoroc State Recreation Area  
Conceptual Master Plan

Florida Department of Natural Resources

prepared by

Dyer, Riddle, Mills, and Precourt, Inc.

**PLANT SPECIES FOUND WITHIN  
TENOROC FISH MANAGEMENT AREA**

**taken from**

**Tenoroc State Recreation Area  
Conceptual Master Plan**

**Florida Department of Natural Resources**

**prepared by**

**Dyer, Riddle, Mills, and Precourt, Inc.**

**PLANT SPECIES FOUND WITHIN THE CLAY SETTLEMENTS AREAS**

**OVERBURDEN RIDGES**

Trees and Shrubs

Tongue-tree*	<i>Albizia lebbek</i>
Sweet-gum	<i>Liquidambar styraciflua</i>
Wax Myrtle	<i>Myrica cerifera</i>
Black Cherry	<i>Prunus serotina</i>
Live Oak	<i>Quercus virginiana</i>
Cabbage Palm	<i>Sabal palmetto</i>
Brazilian Pepper*	<i>Schinus terebinthefolius</i>
Bald-cypress	<i>Taxodium distichum</i>
Saltbush	<i>Baccharis halimifolia</i>
Lantana	<i>Lantana camara</i>
Dewberry	<i>Rubus betulifolius</i>
Saw Palmetto	<i>Serenoa repens</i>
Rattlebox**	<i>Crotalaria purshii</i>

Herbaceous

Virginia Creeper	<i>Parthenocissus quinquefolia</i>
Greenbrier	<i>Smilax bona-nox</i>
Muscadine	<i>Vitis rotundifolia</i>
Bermuda grass	<i>Cynodon dactylon</i>
Beggar's Tick	<i>Bidens pilosa</i>
Dog Fennel	<i>Eupatorium capillifolium</i>
Caesar Weed	<i>Urena lobata</i>
Cogon grass*	<i>Imperata cylindrica</i>

\*Exotic and/or nuisance species.

\*\*Seeds are toxic to birds and wildlife, exotic/nuisance species.

## WETLANDS

### Trees and Shrubs

Carolina Willow  
Saltbush

*Salix caroliniana*  
*Baccharis halimifolia*

### Herbaceous

Primrose Willow  
Water Fern  
Duck Weed  
Water Primrose  
Cattails  
Water lettuce

*Ludwigia peruviana*  
*Salvinia rotundifolia*  
*Lemna* sp.  
*Ludwigia leptocarpa*  
*Typha* sp.  
*Pistia stratiotes*

## **PLANT SPECIES FOUND WITHIN THE SAND TAILING AREAS**

### Trees and Shrubs

Camphor-Tree\*  
Saltbush  
Slash Pine  
Persimmon  
Rattlebox\*\*

*Cinnamomum camphora*  
*Baccharis halimifolia*  
*Pinus elliottii*  
*Diospyros virginiana*  
*Crotalaria purshii*

### Herbaceous

Crab grass  
Bahia grass  
Low paspalum  
Natal grass  
Drop seed  
Ragweed  
Dog Fennel  
Bermuda grass  
Cogon grass\*  
Sedge  
Muscadine Grape  
Prickly Pear  
Beggar's Tick  
Horseweed  
Camphorweed  
Hairy Indigo

*Digitaria ciliaris*  
*Paspalum notatum*  
*Paspalum setaceum*  
*Rhynchelytrum repens*  
*Sporobolus indicus*  
*Ambrosia artemisiifolia*  
*Eupatorium capillifolium*  
*Cynodon dactylon*  
*Imperata cylindrica*  
*Cyperus* spp.  
*Vitis* sp.  
*Opuntia* sp.  
*Bidens bipinnata*  
*Conyza canadensis*  
*Heterotheca subaxillaris*  
*Indigofera hirsuta*

\*Exotic and/or nuisance species.

\*\*Seeds are toxic to birds and wildlife, exotic/nuisance species.

## PLANT SPECIES FOUND WITHIN THE "LAND AND LAKES" RECLAMATION AREAS

### Trees and Shrubs

Wax Myrtle	<i>Myrica cerifera</i>
willow	<i>Salix caroliniana</i>
Saltbush	<i>Baccharis halimifolia</i>
Rattlebush**	<i>Daubentonia punicea</i>

### Herbaceous

Bahia grass	<i>Paspalum notatum</i>
Low paspalum	<i>Paspalum setaceum</i>
Bermuda grass	<i>Cynodon dactylon</i>
Dog Fennel	<i>Eupatorium capillifolium</i>
Camphorweed	<i>Heterotheca subaxillaris</i>
Natal grass	<i>Rhynchelytrum repens</i>
Crab grass	<i>Digitaria ciliaris</i>
Drop seed	<i>Sporobolus indicus</i>
Cogon grass*	<i>Imperata cylindrica</i>
Cattails	<i>Typha</i> sp.
Hydrilla	<i>Hydrilla verticillata</i>
Water lettuce*	<i>Pistia stratiotes</i>
Water hyacinth*	<i>Eichhornia crassipes</i>
Duck Weed	<i>Lemna</i> sp.
Pickerelweed	<i>Pontederia lanceolata</i>
Frog's Bit*	<i>Limnobium spongia</i>

## PLANT SPECIES FOUND WITHIN THE MINED OUT AREAS

### **OVERBURDEN RIDGES**

#### Trees and Shrubs

Tongue-tree*	<i>Albizia lebbek</i>
Red Maple	<i>Acer rubrum</i>
Sweet-gum	<i>Liquidambar styraciflua</i>
Chinaberry	<i>Melia azedarach</i>
Wax Myrtle	<i>Myrica cerifera</i>
Slash Pine	<i>Pinus elliotii</i>
Black Cherry	<i>Prunus serotina</i>
Live Oak	<i>Quercus virginiana</i>
Cabbage Palm	<i>Sabal palmetto</i>
Brazilian Pepper*	<i>Schinus terebinthifolius</i>
Bald Cypress	<i>Taxodium distichum</i>
Saltbush	<i>Baccharis halimifolia</i>
Rattlebox**	<i>Crotalaria purshii</i>

\*Exotic and/or nuisance species.

\*\*Seeds are toxic to birds and wildlife, exotic/nuisance species.

Herbaceous

Lantana  
Dewberry  
Pepper-vine  
Virginia Creeper  
Greenbrier  
Muscadine  
Bermuda grass  
Crab grass  
Cogon grass\*  
Yard grass  
Low paspalum  
Natal grass  
Drop seed  
Three-sided mercury  
Shy Leaves  
Ragweed  
Beggar's Tick  
Mexican Tea  
Dog Fennel  
Hairy Indigo  
Caesar Weed

*Lantana camara*  
*Rubus betulifolius*  
*Ampelopsis arborea*  
*Parthenocissus quinguefolia*  
*Smilax bona-nox*  
*Vitis rotundifolia*  
*Cynodon dactylon*  
*Digitaria ciliaris*  
*Imperata cylindrica*  
*Eleusine indica*  
*Paspalum setaceum*  
*Rhynchelytrum repens*  
*Sporobolus indicus*  
*Acalypha gracilens*  
*Aescynomene americana*  
*Ambrosia artemisiifolia*  
*Bidens pilosa*  
*Chenopodium ambrosioides*  
*Eupatorium capillifolium*  
*Indigofera hirsuta*  
*Urena lobata*

**WETLANDS**

Trees and Shrubs

Carolina Willow  
Primrose Willow  
Wax Myrtle

*Salix caroliniana*  
*Ludwigia peruviana*  
*Myrica cerifera*

Herbaceous

Sedge  
Marsh Pennywort  
Cattails  
Water Hyacinth

*Cyperus surinamensis*  
*Hydrocotyle umbellate*  
*Typha* sp.  
*Eichhornia crassipes*

**PLANT SPECIES FOUND WITHIN THE SCRUBBY FLATWOODS**

Trees and Shrubs

Slash Pine  
Sand Live Oak  
Wax Myrtle  
Saw Palmetto  
Staggerbush  
Dwarf Blueberry

*Pinus elliottii*  
*Quercus geninata*  
*Myrica cerifera*  
*Serenoa repens*  
*Lyonia fruticosa*  
*Vaccinium* sp.

\*Exotic and/or nuisance species.

\*\*Seeds are toxic to birds and wildlife, exotic/nuisance species.

Herbaceous

Golden Aster	<i>Heterotheca graminifolia</i>
Goldenrod	<i>Solidago</i> spp.
Gopher Apple	<i>Licania michauxii</i>
Tar Flower	<i>Befaria racemosa</i>
Wiregrass	<i>Aristida stricta</i>

**PLANT SPECIES FOUND WITHIN THE SANDHILLS**

Trees and Shrubs

Slash Pine	<i>Pinus elliottii</i>
Turkey Oak	<i>Quercus laevis</i>
Bluejack Oak	<i>Quercus incana</i>
Sand Post Oak	<i>Quercus margaretta</i>
Persimmon	<i>Diospyros virginiana</i>
Gopher Apple	<i>Licania michauxii</i>
Runner Oak	<i>Quercus pumila</i>

Herbaceous

Sparkleberry	<i>Vaccinium arboreum</i>
Wiregrass	<i>Aristida stricta</i>
Winged Sumac	<i>Rhus copallina</i>
Bracken Fern	<i>Pteridium aquilinum</i>
Partridge Pea	<i>Cassia fasciculata</i>
Golden Aster	<i>Heterotheca graminifolia</i>
Wild Buckwheat	<i>Eriogonum tomentosum</i>
Dollarweed	<i>Rhynchosia reniformis</i>
Milk Pea	<i>Garlactia elliottii</i>
Yellow Foxglove	

**PLANT SPECIES FOUND WITHIN THE BOTTOMLAND FOREST AREA**

Trees and Shrubs

Bald Cypress	<i>Taxodium distichum</i>
Black Gum	<i>Nyssa biflora</i>
Slash Pine	<i>Pinus elliottii</i>
Red Bay	<i>Persea borbonia</i>
Sweet Bay	<i>Magnolia virginiana</i>
Cabbage Palm	<i>Sabal palmetto</i>
Red Maple	<i>Acer rubrum</i>
Water Oak	<i>Quercus nigra</i>
Sweet-gum	<i>Liquidambar styraciflua</i>
Live Oak	<i>Quercus virginiana</i>
Laurel Oaks	<i>Quercus hemisphaerica</i>
Wax Myrtle	<i>Myrica cerifera</i>
Elderberry	<i>Sambucus simponii</i>
Saw Palmetto	<i>Serenoa repens</i>
Saltbush	<i>Baccharis halimifolia</i>

Herbaceous

Greenbrier  
Poison Ivy  
Muscadine Grape  
Caesar Weed  
Gallberry  
Virginia Creeper

*Smilax bona-nox*  
*Toxicodendron radicans*  
*Vitis rotundifolia*  
*Urena lobata*  
*Ilex glabra*  
*Parthenocissus quinquefolia*

**PLANT SPECIES FOUND WITHIN THE UPLAND MIXED FOREST AREAS**

Trees and Shrubs

Southern Magnolia  
Pignut Hickory  
Sweet-gum  
Red Maple  
Flowering Dogwood  
Live Oak  
Hackberry  
Common Persimmon  
Red Cedar  
Red Mulberry  
Black Cherry  
Water Oak  
Cabbage Palm  
Florida Elm  
Sparkleberry  
Beauty-berry  
Partridgeberry

*Magnolia virginiana*  
*Carya glabra*  
*Liquidambar styraciflua*  
*Acer rubrum*  
*Cornus florida*  
*Quercus virginiana*  
*Celtis laevigata*  
*Diospyros virginiana*  
*Juniperus silicicola*  
*Morus rubra*  
*Prunus serotina*  
*Quercus nigra*  
*Sabal palmetto*  
*Ulmus americana var. floridana*  
*Vaccinium arboreum*  
*Callicarpa americana*  
*Mitchella repens*

Herbaceous

Devil 's Walking Stick  
Greenbrier  
Passion flower  
Fringe tree  
Horse Sugar  
Muscadine Grape  
Caesar Weed  
Virginia Creeper

*Aralia spinosa*  
*Smilax bona-nox*  
*Passiflora incarnate*  
*Chionanthus virginiana*  
*Symplocos tinctoria*  
*Vitis rotundifolia*  
*Urena lobata*  
*Parthenocissus quinquefolia*

**PLANT SPECIES FOUND WITHIN THE MESIC FLATWOODS COMMUNITES**

Trees and Shrubs

Slash Pine  
Wiregrass  
Runner Oak  
St. John's Wort  
Saw Palmetto  
Fetterbush  
Blueberry  
Gopher Apple

*Pinus elliottii*  
*Aristida stricta*  
*Quercus pumila*  
*Hypericum spp.*  
*Serenoa repens*  
*Lyonia ferruginea*  
*Vaccinium sp.*  
*Licania michauxii*

Herbaceous

Tar Flower  
Bog Buttons  
Black-root  
False Foxglove  
White Tap Aster  
Yellow-eyed grass

*Befaria racemosa*  
*Lachnacaulon anceps*  
*Pterocaulon pycnostachyum*  
*Agalinis purpurea*  
*Aster reticulatus*  
*Xyris fimbriata*

**PLANT SPECIES FOUND WITHIN THE CYPRESS DOME COMMUNITIES**

Trees and Shrubs

Bald Cypress  
Swamp Tupelo  
Slash Pine  
Red Maple  
Sweet-bay  
Loblolly Bay  
Fetterbush

*Taxodium distichum*  
*Nyssa biflora*  
*Pinus elliotii*  
*Acer rubrum*  
*Magnolia virginiana*  
*Gordonia lasianthus*  
*Lyonia ferruginea*

Herbaceous

Netted chain fern  
Poison Ivy  
Spanish Moss  
Wild Pine  
Royal Fern  
Cinnamon Fern  
Costal Plain Willow  
Wax Myrtle  
St. John's Wort  
Lizard's Tail  
Water Hyssop  
Button Bush  
Red Root

*Woodwardia areolata*  
*Toxicodendron radicans*  
*Tillandsia usnesoides*  
*Tillandsia setacea*  
*Osmunda regalis*  
*Osmunda cinnomomea*  
*Salix caroliniana*  
*Myrica cerifera*  
*Hypericum sp.*  
*Saururus cernuus*  
*Bacopa monnieri*  
*Cephalanthus occidentalis*  
*Lacnanthes sp.*

**PLANT SPECIES FOUND WITHIN THE BASIN MARSH COMMUNITIES**

Trees and Shrubs

Carolina Willow  
Primrose Willow  
Saltbush  
Elderberry  
Button Bush  
Wax Myrtle

*Salix caroliniana*  
*Ludwigia peruviana*  
*Baccharis halimifolia*  
*Sambucus simponii*  
*Cephalanthus occidentalis*  
*Myrica cerifera*

Herbaceous

Cattails  
Pennywort  
Coinwort  
Dog Fennel  
Pickerelweed  
Yellow-eyed grass  
Water lettuce\*  
Water hyacinth\*  
Duck Weed  
Frog's Bit\*

*Typha* sp.  
*Hydrocotyle umbellata*  
*Centella asiatica*  
*Eupatorium capillifolium*  
*Pontederia lanceolata*  
*Xyris fimbriata*  
*Pistia stratiotes*  
*Eichhornia crassipes*  
*Lemna* sp.  
*Limnobium spongia*

\*Exotic and/or nuisance species.

\*\*Seeds are toxic to birds and wildlife, exotic/nuisance species.

## **Appendix VII**

Florida Natural Areas Inventory

Species and Natural Community Summary For Polk County

October 11, 2001

# Florida Natural Areas Inventory

## Species and Natural Community Summary for Polk County

<u>Scientific Name</u>	<u>Common Name</u>	<u>Global Rank</u>	<u>State Rank</u>	<u>Federal Status</u>	<u>State Status</u>	<u>Occurrence Status</u>
<b><u>AMPHIBIANS</u></b>						
<i>Rana capito</i>	gopher frog	G4	S3	N	LS	C
<b>REPTILES</b>						
<i>Alligator mississippiensis</i>	American alligator	G5	S4	T(S/A)	LS	C
<i>Clemmys guttata</i>	spotted turtle	G5	S3?	N	N	C
<i>Crotalus adamanteus</i>	eastern diamondback rattlesnake	G5	S3	N	N	C
<i>Drymarchon corais couperi</i>	eastern indigo snake	G4T3	S3	LT	LT	C
<i>Eumeces egregius lividus</i>	blue-tailed mole skink	G4T2	S2	LT	LT	C
<i>Gopherus polyphemus</i>	gopher tortoise	G3	S3	N	LS	C
<i>Lampropeltis calligaster</i>	mole snake	G5	S2S3	N	N	P
<i>Neoseps reynoldsi</i>	sand skink	G2	S2	LT	LT	C
<i>Pituophis melanoleucus mugitus</i>	Florida pine snake	G5T3?	S3	N	LS	C
<i>Pseudemys concinna suwanniensis</i>	Suwannee cooter	G5T3	S3	N	LS	P
<i>Sceloporus woodi</i>	Florida scrub lizard	G3	S3	N	N	C
<i>Stilosoma extenuatum</i>	short-tailed snake	G3	S3	N	LT	P
<b>BIRDS</b>						
<i>Accipiter cooperii</i>	Cooper's hawk	G4	S3?	N	N	P
<i>Aimophila aestivalis</i>	Bachman's sparrow	G3	S3	N	N	C
<i>Ajaia ajaja</i>	roseate spoonbill	G5	S2S3	N	LS	P
<i>Ammodramus savannarum floridanus</i>	Florida grasshopper sparrow	G5T1	S1	LE	LE	C
<i>Aphelocoma coerulescens</i>	Florida scrub-jay	G3	S3	LT	LT	C
<i>Aramus guarauna</i>	limpkin	G5	S3	N	LS	P
<i>Ardea alba</i>	great egret	G5	S4	N	N	C
<i>Buteo brachyurus</i>	short-tailed hawk	G4?	S3	N	N	P
<i>Caracara plancus</i>	crested caracara	G5	S2	LT	LT	C
<i>Egretta caerulea</i>	little blue heron	G5	S4	N	LS	C
<i>Egretta thula</i>	snowy egret	G5	S4	N	LS	C
<i>Egretta tricolor</i>	tricolored heron	G5	S4	N	LS	C
<i>Elanoides forficatus</i>	swallow-tailed kite	G4	S2S3	N	N	P

<i>Eudocimus albus</i>	white ibis	G5	S4	N	LS	C
<i>Falco columbarius</i>	merlin	G5	SU	N	N	P
<i>Falco peregrinus</i>	peregrine falcon	G4	S2	LE	LE	P
<i>Falco sparverius paulus</i>	southeastern American kestrel	G5T3T4	S3?	N	LT	P
<i>Grus canadensis pratensis</i>	Florida sandhill crane	G5T2T3	S2S3	N	LT	C
<i>Haliaeetus leucocephalus</i>	bald eagle	G4	S3	LT	LT	C
<i>Ixobrychus exilis</i>	least bittern	G5	S4	N	N	P
<i>Mycteria americana</i>	wood stork	G4	S2	LE	LE	C
<i>Nyctanassa violacea</i>	yellow-crowned night-heron	G5	S3?	N	N	C
<i>Nycticorax nycticorax</i>	black-crowned night-heron	G5	S3?	N	N	C
<i>Pandion haliaetus</i>	osprey	G5	S3S4	N	LS**	C
<i>Picoides borealis</i>	red-cockaded woodpecker	G3	S2	LE	LT	C
<i>Picoides villosus</i>	hairy woodpecker	G5	S3?	N	N	P
<i>Plegadis falcinellus</i>	glossy ibis	G5	S2	N	N	C
<i>Rostrhamus sociabilis plumbeus</i>	snail kite	G4G5T1	S1	LE	LE	C
<i>Rynchops niger</i>	black skimmer	G5	S3	N	LS	P
<i>Speotyto cunicularia floridana</i>	Florida burrowing owl	G4T3	S3	N	LS	P
<i>Sterna caspia</i>	Caspian tern	G5	S2?	N	N	P
<i>Sterna sandvicensis</i>	sandwich tern	G5	S2	N	N	P
<b>MAMMALS</b>						
<i>Corynorhinus rafinesquii</i>	Rafinesque's big-eared bat	G3	S3?	N	N	C
<i>Eptesicus fuscus</i>	big brown bat	G5	S3	N	N	C
<i>Mustela frenata peninsulæ</i>	Florida long-tailed weasel	G5T3	S3?	N	N	C
<i>Neofiber alleni</i>	round-tailed muskrat	G3	S3	N	N	C
<i>Podomys floridanus</i>	Florida mouse	G3	S3	N	LS	C
<i>Sciurus niger shermani</i>	Sherman's fox squirrel	G5T2	S2	N	LS	C
<i>Sorex longirostris longirostris</i>	southeastern shrew	G5T5	S4	N	N	C
<i>Ursus americanus floridanus</i>	Florida black bear	G5T2	S2	C	LT**	P
<b>INVERTEBRATES</b>						
<i>Cicindela highlandensis</i>	Lake Wales Ridge tiger beetle	G2	S1	N	N	C
<i>Cicindela hirtilabris</i>	peninsular tiger beetle	G4	S?	N	N	C
<i>Cicindela scabrosa</i>	scrub tiger beetle	G3	S?	N	N	C
<b>VASCULAR PLANTS</b>						
<i>Agrimonia incisa</i>	incised groove-bur	G3	S2	N	N	C
<i>Aristida rhizomophora</i>	Florida three-awned grass	G2	S2	N	N	C
<i>Asclepias curtissii</i>	Curtiss' milkweed	G3	S3	N	LE	C
<i>Bonamia grandiflora</i>	Florida bonamia	G3	S3	LT	LE	C
<i>Calamintha ashei</i>	Ashe's savory	G3	S3	N	LT	C

<i>Centrosema arenicola</i>	sand butterfly pea	G2	S2	N	N	C
<i>Cheiroglossa palmata</i>	hand fern	G4	S2	N	LE	C
<i>Chionanthus pygmaeus</i>	pygmy fringe tree	G3	S3	LE	LE	C
<i>Clitoria fragrans</i>	pigeon-wing	G3	S3	LT	LE	C
<i>Coelorachis tuberculosa</i>	piedmont jointgrass	G3	S3	N	N	C
<i>Conradina brevifolia</i>	short-leaved rosemary	G2Q	S2	LE	LE	C
<i>Crotalaria avonensis</i>	Avon Park rabbit-bells	G1	S1	LE	LE	C
<i>Dicerandra frutescens</i>	scrub mint	G1	S1	LE	LE	C
<i>Drosera intermedia</i>	spoon-leaved sundew	G5	S3	N	LT	C
<i>Eriogonum longifolium</i> <i>var gnaphalifolium</i>	scrub buckwheat	G4T3	S3	LT	LE	C
<i>Eryngium cuneifolium</i>	wedge-leaved button- snakeroot	G1	S1	LE	LE	R
<i>Gymnopogon chapmanianus</i>	Chapman's skeletongrass	G2	S2	N	N	C
<i>Hartwrightia floridana</i>	hartwrightia	G2	S2	N	LT	C
<i>Hypericum cumulicola</i>	Highlands scrub hypericum	G2	S2	LE	LE	C
<i>Hypericum edisonianum</i>	Edison's ascyrum	G2	S2	N	LE	C
<i>Ilex opaca var arenicola</i>	scrub holly	G5T3	S3	N	N	C
<i>Illicium parviflorum</i>	star anise	G1G2	S1	N	LE	C
<i>Lechea cernua</i>	nodding pinweed	G3	S3	N	LT	C
<i>Lechea divaricata</i>	pine pinweed	G2	S2	N	LE	C
<i>Liatris ohlingerae</i>	Florida blazing star	G3	S3	LE	LE	C
<i>Lupinus westianus var aridorum</i>	scrub lupine	G2T1	S1	LE	LE	C
<i>Matelea floridana</i>	Florida spiny-pod	G2	S2	N	LE	C
<i>Myriophyllum laxum</i>	piedmont water-milfoil	G3	S2S3	N	N	C
<i>Nemastylis floridana</i>	fall-flowering ixia	G2	S2	N	LE	C
<i>Nolina brittoniana</i>	Britton's beargrass	G2	S2	LE	LE	C
<i>Panicum abscissum</i>	cutthroat grass	G2	S2	N	LE	C
<i>Paronychia chartacea ssp chartacea</i>	paper-like nailwort	G3T3	S3	LT	LE	C
<i>Pavonia spinifex</i>	yellow hibiscus	G4G5	S2S3	N	N	C
<i>Persea humilis</i>	scrub bay	G3	S3	N	N	C
<i>Physostegia leptophylla</i>	slender-leaved dragon-head	G4?	S3S4	N	N	C
<i>Platanthera integra</i>	yellow fringeless orchid	G4	S3S4	N	LE	C
<i>Polygala lewtonii</i>	Lewton's polygala	G2	S2	LE	LE	C
<i>Polygonella basiramia</i>	hairy jointweed	G3	S3	LE	LE	C
<i>Polygonella myriophylla</i>	Small's jointweed	G3	S3	LE	LE	C
<i>Prunus geniculata</i>	scrub plum	G2G3	S2S3	LE	LE	C
<i>Pteroglossaspis ecristata</i>	wild coco	G2G3	S2	N	LT	C

<i>Rhynchospora decurrens</i>	decurrent beakrush	G3G4	S2	N	N	C
<i>Salix floridana</i>	Florida willow	G2	S2	N	LE	C
<i>Schizachyrium niveum</i>	scrub bluestem	G1	S1	N	N	C
<i>Stillingia sylvatica</i> ssp <i>tenuis</i>	queen's delight	G4G5T2	S2	N	N	C
<i>Stylisma abdita</i>	scrub stylisma	G2G3	S2S3	N	LE	C
<i>Warea amplexifolia</i>	clasping warea	G1	S1	LE	LE	C
<i>Warea carteri</i>	Carter's warea	G1G2	S1S2	LE	LE	C
<i>Zephyranthes simpsonii</i>	rain lily	G2G3	S2S3	N	LT	C
<i>Ziziphus celata</i>	scrub ziziphus	G1	S1	LE	LE	C

#### NON-VASCULAR PLANTS

<i>Cladonia perforata</i>	perforate reindeer lichen	G1	S1	LE	LE	C
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#### NATURAL COMMUNITIES

Basin Swamp		G4?	S3	N	N	C
Baygall		G4?	S4?	N	N	C
Blackwater Stream		G4	S2	N	N	C
Depression Marsh		G4?	S3	N	N	C
Dry Prairie		G2	S2	N	N	C
Floodplain Forest		G?	S3	N	N	C
Floodplain Marsh		G3?	S2	N	N	C
Floodplain Swamp		G?	S4?	N	N	C
Hydric Hammock		G?	S4?	N	N	C
Mesic Flatwoods		G?	S4	N	N	C
Prairie Hammock		G4	S4	N	N	C
Sandhill Upland Lake		G3	S2	N	N	C
Sandhill		G2G3	S2	N	N	C
Scrubby Flatwoods		G3	S3	N	N	C
Scrub		G2	S2	N	N	C
Seepage Slope		G3?	S2	N	N	C
Slough		G4	S4?	N	N	C
Swale		G4?	S3	N	N	C
Wet Flatwoods		G?	S4?	N	N	C
Wet Prairie		G?	S4?	N	N	C
Xeric Hammock		G?	S3	N	N	C

#### OTHER

Bird rookery				N	N	C
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\*\* See Rank and Status Explanations and Definitions, Special Animal Listings - Federal and State Status

## County Occurrence Status

### Vertebrates and Invertebrates:

**C = (Confirmed)** Occurrence status derived from a documented record in the FNAI data base.

**P = (Potential)** Occurrence status derived from a reported occurrence for the county or the occurrence lies within the published range of the taxon.

**N = (Nesting)** For sea turtles only; occurrence status derived from documented nesting occurrences. **Plants, Natural Communities, and Other:**

**C = (Confirmed)** Occurrence status derived from a documented record in the FNAI data base or from a herbarium specimen.

**R = (Reported)** Occurrence status derived from published reports.

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Data Current to December 1997

## **Appendix VIII**

Permission Letter from the  
Florida Natural Areas Inventory

March 3, 1997

# FLORIDA NATURAL AREAS INVENTORY

1018 Thomasville Road, Suite 200-C · Tallahassee, Florida 32303 · (904) 224-8207

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BUREAU OF  
WILDLIFE MANAGEMENT

March 3, 1997

Hugh Boyter  
Bureau of Wildlife Management  
Division of Wildlife, GFC  
620 South Meridian  
Tallahassee, FL 32399-1600

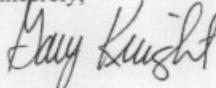
Dear Hugh:

By virtue of this letter we are agreeing that it is unnecessary for your office to request FNAI element data for each management plan you prepare if the following condition is met.

An update of the Florida Natural Areas Inventory's Biological Conservation Database will be performed on a quarterly basis.

Our database manager, Lance Peterson, will provide the appropriate FGFWFC staff with the updated Biological Conservation Database and your staff will assure that it is incorporated into all management plans. Hopefully, this new procedure will eliminate wasted time and effort at both organizations. Mr. Peterson told me he has provided FGFWFC personnel a database update within the last few weeks so this procedure can begin immediately.

Sincerely,



Gary Knight, Director  
Florida Natural Areas Inventory

cc: Lance Peterson, FNAI  
MAF/FGFWFC/general/agreemnt.gfc

The Nature Conservancy and the Florida Department of Environmental Protection

## **Appendix IX**

Findings of Inadequacy and Recommendations by Land Management Review Team

February 24, 2000

**Land Management Review of Tenoroc Fish Management Area,  
Manatee County (Lease No. 3977): February 24, 2000**

Prepared by Division of State Lands Staff

Delmas Barber, OMC Manager  
David Petti, Environmental Specialist  
Alphonso Craig, Staff

For  
The Tenoroc Fish Management Area Review Team

**Final Report May 11, 2000**

Land Manager:	<u>FGFWFC</u>
Area:	<u>6,381.72 Acres</u>
County:	<u>Polk County</u>
Mngt. Plan Approved:	<u>05/20/1995</u>
Mngt. Plan Update Due:	<u>05/20/2000</u>

**Management Review Team Members**

<b>Agency Represented</b>	<b>Team member Appointed</b>	<b>Team member in attendance</b>
DEP/DRP	Mr. Erik Egensteiner	
DEP Southwest Florida	Ms. Dianne McCommons-Beck	
DACS/DOF	Mr. Bill Korn	Mr. Bill Korn
FWCC	Mr. Victor Echaves	Mr. Victor Echaves
County Commission	Mr. Neil Combee	Mr. Neil Combee
Private Land Manager	Mr. Ron Boutwell	Mr. Ron Boutwell
Private Conservation	Mr. John Ryan	Mr. John Ryan
Polk SWCD	Mr. David Hafer	

**Process for Implementing Regional Management Review Teams**

**Legislative Intent and Guidance:**

Chapter 259.036, F. S. was enacted in 1997 to determine whether conservation, preservation, and recreation lands owned by the state Board of Trustees of the Internal Improvement Trust Fund (Board) are being managed properly. It directs the Department of Environmental Protection (DEP) to establish land management review teams to evaluate the extent to which the existing management plan provides sufficient protection to threatened or endangered species, unique or important natural or physical features, geological or hydrological functions, and archaeological features. The teams also evaluate the extent to which the land is being managed for the purposes for which it was acquired and the degree to which actual management practices, including public access, are in compliance with the adopted management plan. If a land management plan has not been adopted, the review shall consider the extent to which the land is being managed for the purposes for which it was acquired and the degree to which actual management practices are in compliance with the management policy statement and management prospectus for that property. If the land management review team determines that reviewed lands are not being managed for the purposes for which they were acquired or in compliance with the adopted land management plan, management policy statement, or management prospectus, DEP shall provide the review findings to the Board, and the managing agency must report to the Board its reasons for managing the lands as it has. A report of the review findings are given to the managing agency under review, the Land Acquisition and

Management Advisory Council (LAMAC), and to the Division of State Lands. Also, DEP shall report the annual review findings of its land management review teams to the Board no later than the second board meeting in October of each year.

**Review Site:**

The management review of the TENOROC Fish Management Area considered approximately 6,381.72 acres in Polk County that are managed by the Florida Game and Fresh Water Fish Commission (FGFWFC). The team evaluated the extent to which current management actions are sufficient, whether the land is being managed for the purpose for which it was acquired, and whether actual management practices, including public access, are in compliance with the management plan. The Division of State Lands approved the management plan on May 20, 1995, and the management plan update is May 20, 2000.

**Review Team Determination:**

**Is the land being managed for the purpose for which it was acquired?**

After completing the checklist, team members were asked to answer Ayes@ or Ano@ to this question. All team members agreed that Tenoroc Fish Management Area is being managed for the purpose for which it was acquired.

**Are actual management practices, including public access, in compliance with the management plan?**

After completing the checklist, team members were asked to answer Ayes@ or Ano@ to this question. All team members agreed that actual management practices, including public access, were in compliance with the management plan for this site.

**Commendations to the managing agency**

The following commendation resulted from a discussion and vote of review team members.

1. The team commends the management area staff for exceptional progress w/limited staff and funds on developing additional recreational opportunities as well as quality fishing recreation. (VOTE: 5+,0-)
2. The team commends the management staff for exceptional management in developing and scoring major hydrologic restoration projects. (VOTE: 5+, 0 -)

**Exceptional management actions**

The following items received high scores on the review team checklist (see Attachment 1), which indicates that management actions exceeded expectations.

- Management Resources maintenance of sanitary facilities

### **Recommendations and checklist findings**

The management plan must include responses to the recommendations and checklist items that are identified below.

### **Recommendations:**

The following recommendations resulted from a discussion and vote of review team members.

1. The team recommends that the level of fire management should be improved. (VOTE: 5+,0 -)
2. The team recommends that the Division of Fisheries seek more land management staff and funding for Tenoroc. (VOTE: 5+, 0-)
3. The team recommends that the Division of Fisheries ask FNAI to survey natural areas for listed plants and animals. (VOTE: 5+, 0 -)
4. The team recommends that the Division of Fisheries seek a substantial increase in funding for exotic/invasive plant control. (VOTE: 5+,0 -)

### **Manager's Response:**

#### **Recommendation #1**

The FWC agrees that prescribed fire is an important land management tool on undistributed areas; however, as an old mine site, Tenoroc is not a pristine tract of Florida wilderness. Mining has created unique landforms and soil types. Characteristically, disturbed soils at Tenoroc have been colonized by non-native invasive vegetation such as cogon grass (*Impurity cylindrica*), Brazilian Pepper, Tropical soda apple (*Solan khasianum*) and many others. On lands like Tenoroc, where reclamation was attempted by the mining company before the development of the modern rules or guidelines, this is especially true.

Fire is typically prescribed for two reasons to reduce the fuel load of an area and to promote expansion of native vegetation communities. Tenoroc contains an estimated 140 acres of unmined land. About twenty acres are remnant sandhill habitat and the remnant and some of the accessible flatwoods habitats have been burned in the past three years. The largest tract of flatwoods/flood plain hardwood has been scheduled for burning over the past two years; however, weather conditions and DOF staff availability have prevented completion of this task.

The remaining land at Tenoroc was mined and, although portion of these lands have been marginally planted with native species, major reforestation effort was not originally planned or implemented. As such, much of the upland at Tenoroc is dominated by non-native, invasive vegetation. Prescribed fire has been used to control the fuel load on many of these areas; however rapid regrowth of exotic plants and heat generated from the fires preclude the establishment of Native vegetation, either naturally or through

planting. Again as with remnant native habitat, control burning of mined lands are dependent on weather conditions and DOF staff availability.

Currently, at the request of FWC, the local DOF staff is developing a control burn schedule to improve the level of fire management in areas containing remnant native habitat. When appropriate, fire will be used to control the fuel load on mined lands dominated by non-native, invasive vegetation.

### **Recommendation #2**

Land manager recognizes the need for land management staff and funding; however, project staffing and funding are dependent on agency priorities and the Florida Legislature.

### **Recommendation #3**

Land Manager will ask Florida Natural Areas Inventory (FNAI) to survey natural areas for listed plants and animals.

### **Recommendation #4**

The current management funding for Tenoroc FMA is provided through the State Game Trust Fund and the federally funded Sport Fish Restoration Project, both of which are based on the sale of fishing licenses. Land Manager will evaluate other areas of Funding that can be used to address exotic plant eradication and management; however at current staffing levels; the primary direction will remain the management of fisheries resources at Tenoroc.

## **Checklist Findings**

The following items received low scores on the review team checklist (see Attachment 1), which indicates that management actions were insufficient (*f*) or that the issue was not sufficiently addressed in the management plan (*p*). These items need to be addressed in the management plan update.

### **1. Protection/ maintenance of Flatwoods and Sandhills (p)**

#### **Manager ' s Response:**

The original CMP (under Section V. Resource Management Problems and Strategies, B. Office of Environmental Services, Problem 3) cited Tenoroc as having 20 acres of remnant sandhill habitat and a total of 350 acres of mine Bcreated deep sand tailings in three locations. Different portions of the 350 acres deep sand tailings had been marginally revegetated with native species to mimic both sandhill and flatwoods habitats. Through newer mapping techniques now available, efforts have been undertaken to produce a more accurate description of mined and unmined vegetation communities. Descriptions of these communities will be added to the updated CMP. Although not specifically mentioned in the original CMP, the agency ' s management actions regarding the limited flatwood and sandhill habitat at Tenoroc were judge in the field review as sufficient under the protection / maintenance category.

## **2. Protection/ preservation of Animals and Plants (p)**

### **Manager 's Response:**

Per the land management review checklist, this category deals with the listed species. The original CMP included a Florida Natural Areas Inventory (FNAI) report for the Tenoroc FMA. Five species of concern (one plant and four animals) were listed in the element occurrence record. Observation records indicated that all of these species were observed prior to 1988. Subsequent to FNAI observation dates of these species, comprehensive surveys of the plant and wildlife species inhabiting Tenoroc were completed by Dyer, Riddle, Mills& Precut, Inc. a consulting firm. In addition, two wildlife observation surveys were undertaken by researchers under grants from the Florida Institute of Phosphate Research. None of the five species listed in FNAI 's element of occurrence records for Polk County. Those species of concern known to inhabit or use the FMA will be included in the updated Tenoroc CMP. In addition, special management actions to insure protection will be included in the updated CMP if needed. Again, the agency 's management actions regarding the protection/preservation of the species of concern were judged in the field review of Tenoroc as sufficient.

## **3. Multiple Use Practices; Apiary (p)**

### **Manager 's Response:**

Tenoroc FMA has had an apiary agreement with a beekeeper since 1992. Inadvertently, this agreement was not depicted in the original CMP. The established apiary agreement will be mentioned in the updated Tenoroc CMP. The established apiary agreement will be mentioned in the updated Tenoroc CMP under multiple use category. Again, the agency 's management actions at Tenoroc regarding multiple use practices were judged in the field review as sufficient.

## **4. Prescribed Fire( Nat. comm maintenance) Area Being Burned/ Frequency (f)**

### **Manager 's Response:**

Tenoroc FMA is operated by Division of Freshwater Fisheries personnel with limited experience in management of uplands. As a result, management of the upland acres at Tenoroc has depended upon assistance of DOF and FWC fisheries staff has worked closely with DOF in coordinating controlled burns on both mined and unmined lands; however, both agencies recognize that mined sites are particularly susceptible to nuisance and/or exotic vegetation that does not succumb to burning and may, in fact, be encouraged to spread. Because of the abundance of non native invasive species at Tenoroc, the original CMP (under Section VI. A. Vegetation Management) indicated that controlled burns would be prescribed only on a case by case basis either to suppress unwanted vegetation for research purposes on mined sites. This practice has been generally pursued; however it is dependent on favorable weather and DOF staff availability. Special consideration has always been given to the 140 acres of unmined habitat at Tenoroc and at least

one controlled burn has been burned was scheduled for burning three years in a row; however, it was not accomplished because of unfavorable weather or lack of staff. It has been the long-term goal of both agencies to develop an aggressive yet environmentally sound program to address non-native invasive species at Tenoroc. In fact, such a program is currently in the planning stage. While this plan (and its funding) is under development, FWC fisheries staff will continue to work with DOF to better plan and schedule burns for Tenoroc.

## **5. Non- native Invasive and Problem Species; Plants (f)**

### **Manager ' s Response:**

As a former phosphate mine Tenoroc FMA has an abundance of non-native invasive species (particularly on its upland areas) making it unique in terms of state lands. The long-term goal for Tenoroc has been to replace the non-native invasive flora with native vegetation through an aggressive control and reforestation program. Areas currently scheduled and funded for reclamation (through DEP non-mandatory reclamation funds and DOT Polk County Parkway mitigation funding) will include a plan to address exotic plant eradication and management. A preliminary reforestation plan for areas not included in this reclamation effort has been developed by FWC and DOF staff. Once finalized, this plan should provide a schedule, funding requirements and a detailed description of techniques to control undesirable upland exotic plants and accomplish reforestation. Execution of this management action will be dependent on funding and staffing levels as detailed in the plan.

## **6. Management Resources; Staff and Funding (f)**

### **Manger ' s Response:**

As indicated in the land management review committee ' s recommendations, management funding for Tenoroc FMA is provided through the State Game Trust Fund and the federally funded Sport Fish Restoration Project, both of which are based on the sale of fishing licenses. Project staff will provide recommendations to FWC administration on staffing requirements as needed; however, project staffing and funding are dependent on agency priorities and the Florida Legislature.

**The management review checklist was analyzed as follows: The checklist consisted of two parts: a plan review section that answered whether or not the management plan sufficiently addressed protection/ restoration/ management needs for a series of items; and a field review section that scored to what extent sufficient management actions were being taken for a series of items. For each item in each section the scores for all team members were averaged. Some items received high scores ( $\geq 4.0$ ) in the field review, which indicates that exceptional management actions are being taken. Some items received low scores ( $\leq 0.5$  for plan review;  $\leq 2.0$  for field review), which indicates that they were not sufficiently addressed in the plan, or that management practices did not meet expectations. These items must be addressed in the management plan update.**

<b>PLAN REVIEW</b>		<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>Average</b>
Cypress Strand	I.A.1	1	1	1	1	0	0.8
Bottom Hardwood Swamp	I.A.2	1	1	1	1	0	0.8
Timber Stands	I.A.3	1	1	0	1	0	0.6
Flatwoods	I.A.4	0	1	0	0	0	0.2
Sandhill	I.A.5	0	1	0	0	0	0.2
Animals	I.B.1	0	1	0	1	0	0.4
Plants	I.B.2	0	1	0	1	0	0.4
Survey(identify& locate)	II.A	1	1	1	1	1	1
Protection and Preservation	II.B	1	1	1	1	1	1
Area Being Burned	III.A.1	1	1	0	1	0	0.6
Frequency	III.A.2	1	1	0	1	0	0.6
Quality	III.A.3	1	1	0	1	0	0.6
Ruderal	III.B.1	1	1	1	1	1	1
Wildlife Habitat	III.C.1	1	1	1	1	1	1
Hunting/Fishing Quality	III.C.2	1	1	1	1	1	1
Animals	III.D.1	1	1	0	1	1	0.8
Plants	III.D.2	1	1	0	1	0	0.6
Roads	III.E.1a	1	1	0	1	1	0.8
Soil Erosion	III.E.1.b	1	1	0	1	1	0.8
Water Control Structures	III.E.1.c	1	1		1	0	0.75
Quality	III.E.3.a	1	1	1	1	1	1
Quantity	III.E.3b	1	1	1	1	1	1
Boundary survey	III.F.1	1	1	1	1	1	1
Gates and Fencing	III.F.2	1	1	1	1	1	1
Signage	III.F.3	1	1	1	1	1	1
Law Enforcement presence	III.F.4	1	1	1	1	1	1
Proposed Development	III.G.1.a	0	1	0	1	1	0.6
Natural Gas Pipeline	III.G.1.b	0	1	0	1	1	0.6
Highways	III.G.1.c	0	1	0	1	1	0.6
500k transmission line	III.G.1.d	0	1	0	1	1	0.6
Inholdings/additions	III.G.2	0	1	1	1	1	0.8
Apiary	III.H.1	0	1	0	0	0	0.2

Commercial Fishing	III.H.2	1	1	0	0	1	0.6
Roads	IV.1.a	1	1	1	1	1	1
Parking	IV.1.b	1	1	1	1	1	1
Recreational Opportunities	IV.2	1	1	1	1	1	1
Interpretive Facilities and signs	IV.3	1	1	1	1	1	1
Environmental education /outreach	IV.4	1	1	1	1	1	1
<b>Field Reviews</b>		<b><u>A</u></b>	<b><u>B</u></b>	<b><u>C</u></b>	<b><u>D</u></b>	<b><u>E</u></b>	
Cypress Strand	I.A.1	3	3	3	3	3	3
Bottom Hardwood Swamp	I.A.2	3	3	3	3	3	3
Timber Stands	I.A.3	3	3	2	3	4	3
Flatwoods	I.A.4	3	3	2	3	2	2.6
Sandhill	I.A.5	2	4	2	3	2	2.6
Animals	I.B.1	4	2	2	2	3	2.6
Plants	I.B.2	4	2	2	2	3	2.6
Survey(identify& locate)	II.A	3	3	3	3	3	3
Protection and Preservation	II.B	3	3	3	3	3	3
Area Being Burned	III.A.1	3	2	1	2	2	2
Frequency	III.A.2	2	2	1	2	3	2
Quality	III.A.3	4	3	1	3	3	2.8
Ruderal	III.B.1	3	3	1	3	3	2.6
Wildlife Habitat	III.C.1	3	4	5	2	4	3.6
Hunting/Fishing Quality	III.C.2	3	4	5	2	5	3.8
Animals	III.D.1	2	3	1	3	3	2.4
Plants	III.D.2	3	1	1	4	1	2
Roads	III.E.1a		3	1	3	3	2.5
Soil Erosion	III.E.1.b	2	3	1	3	3	2.4
Water Control Structure	III.E.1.c	3	3	1	3	4	2.8
Quality	III.E.3.a	3	3	4	2	3	3
Quantity	III.E.3b	3	3	4	2	3	3
Boundary survey	III.F.1	3	3	3	3	3	3
Gates and Fencing	III.F.2	3	3	2	4	3	3
Signage	III.F.3	3	3	2	3	4	3

Law Enforcement presence	III.F.4	3	3	4	2	4	3.2
Proposed Development	III.G.1.a	3	3	4	3	3	3.2
Natural Gas Pipeline	III.G.1.b	3	3	4	3	3	3.2
Highways	III.G.1.c	3	3	3	3	3	3
500k transmission line	III.G.1.d	3	3	3	3	3	3
Inholdings/additions	III.G.2	4	3	3	3	3	3.2
Apiary	III.H.1	3	3	4	3	3	3.2
Commercial Fishing	III.H.2	3	3	4	3	3	3.2
Roads	IV.1.a	3	3	3		3	3
Parking	IV.1.b	3	3	5	2	4	3.4
Recreational Opportunities	IV.2	4	4	5	2	4	3.8
Interpretive Facilities and signs	IV.3	3	3	5	2	4	3.4
Environmental education /outreach	IV.4	4	3	4	2	4	3.4
Waste Disposal	V.1.a	3	3	5	3	4	3.6
Sanitary facilities	V.1.b	4	3	5	3	5	4
Buildings	V.2.a	2	2	3		4	2.75
Equipment	V.2.b	2	3	2		4	2.75
Staff	V.3	1	1	1	4	2	1.8
Funding	V.4	1	1	1	4	2	1.8

**Appendix X**

Confirmation of Compliance

with

Polk County Comprehensive Plan



330 W. Church St.  
Drawer CS06  
P.O. Box 9005  
Bartow, FL 33831-9005  
(941) 534-6084  
SUNCOM 569-6084  
FAX (941) 534-6021

Planning Division

Board of County Commissioners

December 4, 2001

Mr Tim King  
Tenoroc Fish Management Area  
Florida Fish and Wildlife Conservation Commission  
3900 Drane Field Road  
Lakeland, Florida 33811-3203

Re: Conceptual Management Plan for the Tenoroc Fish Management Area in Polk County.

Dear Mr. King;

This is in response to your request for a determination from Polk County regarding the consistency for the Conceptual Management Plan for Tenoroc with the Polk County Comprehensive Plan.

The Tenoroc Fish Management Area is designated "Recreation and Open Space (ROS)" on the Polk County Future Land Use Map Series (FLUMS) of the Comprehensive Plan. This land use designation is intended for areas which are accessible to the general public and which are oriented toward providing recreational opportunities for Polk County residents and visitors.

Based upon our review of the Conceptual Management Plan for Tenoroc, it is determined to be consistent with both the Future Land Use Designation of the property, and all applicable policies of Polk County's adopted Comprehensive Plan.

Thank you for the opportunity to review your Conceptual Management Plan. If I can be of further assistance, please let me know.

Sincerely,

Merle H. Bishop, AICP  
Director

c: chron

# **APPENDIX C**

## **Correspondence**

- Statement of Significance from the Florida Fish and Wildlife Conservation Commission



September 30, 2013

**Florida Fish and Wildlife Conservation Commission**

**Martin Horwitz**  
Environmental Project Manager  
FDOT District 1  
801 N. Broadway Avenue  
P.O. Box 1249  
Bartow, Florida 33830  
(863)519-2805

Commissioners

**Richard A. Corbett**  
Chairman  
Tampa

**Brian S. Yablonski**  
Vice Chairman  
Tallahassee

**Ronald M. Bergeron**  
Fort Lauderdale

**Aliese P. "Liesa" Priddy**  
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Panama City

**Charles W. Roberts III**  
Tallahassee

**Kenneth W. Wright**  
Winter Park

Executive Staff

**Nick Wiley**  
Executive Director

**Greg Holder**  
Assistant Executive Director

**Karen Ventimiglia**  
Chief of Staff

Division of Freshwater  
Fisheries Management  
Tom Champeau  
Director

(850) 488-0331  
(850) 922-3891 FAX

*Managing fish and wildlife resources for their long-term well-being and the benefit of people.*

620 South Meridian Street  
Tallahassee, Florida  
32399-1600  
Voice: (850) 488-4676

Hearing/speech-impaired:  
(800) 955-8771 (T)  
(800) 955-8770 (V)

MyFWC.com

Re: SR 33 Project Development and Environmental (PD&E) Study from Old Combee Road to North of Tomkow Road, FPID.: 480185-1-22-01, Tenoroc Fish Management Area (Tenoroc FMA), Polk County, FL

Dear Mr. James: *Horwitz*

The Florida Fish and Wildlife Conservation Commission (FWC) have been advised of the Florida Department of Transportation's (FDOT) intent to make the improvements as set forth within the referenced project. Those improvements would incorporate the acquiring of a strip of right-of-way from the Tenoroc FMA as generally depicted on the attachment to FDOT's June 24, 2013 letter to FWC which land is owned by the board of Trustees of the Internal Improvement Trust Fund (IITF) and managed by FWC.

FWC has reviewed the cursory information provided by FDOT. It is agreed the proposed strip is small in relation to the overall Tenoroc FMA, but it is significant in that the State's conservation land is to be held in perpetuity. With that said, FWC has no objection with FDOT proceeding with its due diligence relative to its proposed state road improvements.

This letter is not to be construed as serving as FWC's approval or support of any regulatory or proprietary obligations FDOT may be required to follow nor convey any rights or privileges other than those specified within this letter. FDOT may rely upon this letter as authorization for any entrance upon, or activities on the concerned IITF parcel so long as the parcel is not degraded as a result of FDOT's activities.

If you have any questions, please contact Rich Mospens at (850) 488-3831.

Sincerely,

Tom Champeau, Director  
Division of Freshwater Fisheries Management

## David Dangel

---

**From:** Horwitz, Martin <Martin.Horwitz@dot.state.fl.us>  
**Sent:** Monday, November 18, 2013 10:27 AM  
**To:** David Dangel  
**Cc:** Sherrard, Antone N  
**Subject:** FW: SR 33 4(f) DOA and use

David,

Please see below for your records.

**Martin Horwitz**  
Environmental Project Manager

FDOT District 1  
801 N. Broadway Avenue  
P.O. Box 1249  
Bartow, Florida 33830  
(863)519-2805

---

**From:** Cathy.Kendall@dot.gov [mailto:Cathy.Kendall@dot.gov]  
**Sent:** Monday, November 18, 2013 10:12 AM  
**To:** Horwitz, Martin  
**Cc:** Benito.Cunill@dot.gov; Sherrard, Antone N; Pipkin, Gwen G  
**Subject:** RE: SR 33 4(f) DOA and use

Martin,

Thank you for the clarifications. FHWA concurs with the FDOT recommendation and finds that the Fish Management Area is a protected Section 4(f) resource, however, the proposed action (Alternative A-2) does not have a Section 4(f) use of this resource.

If you have any questions concerning this finding, please let me know.

Cathy Kendall, AICP  
Acting Director of Technical Services  
FHWA - FL, PR and VI  
545 John Knox Road, Suite 200  
Tallahassee, FL 32303  
(850) 553-2225  
[cathy.kendall@dot.gov](mailto:cathy.kendall@dot.gov)

---

**From:** Horwitz, Martin [<mailto:Martin.Horwitz@dot.state.fl.us>]  
**Sent:** Wednesday, November 13, 2013 8:34 AM  
**To:** Kendall, Cathy (FHWA)  
**Cc:** Cunill, Benito (FHWA); Sherrard, Antone N; Pipkin, Gwen G  
**Subject:** RE: SR 33 4(f) DOA and use

Good Morning Cathy,

In regards to your question regarding FWC considering if the Tenoroc FMA is a significant recreational area, they did provide an answer stating "it is significant". On the 9/30/2013 letter from FWC in the second paragraph and second sentence, the letter states "It is agreed the proposed strip is small in relation to the overall Tenoroc FMA, but it is significant in that the State's conservation land is to be held in perpetuity."

Also in regards to clarification of whether or not there will be a use of the property, there will be no Section 4(f) use or impact to the Tenoroc FMA. There was a "worst case" full buildout of SR 659 to accept a dual left turn lane from SR 33 (shown on Figure A-1 of DOA) but it is **not** being considered as mentioned in the report. Again this is no longer being considered and it was not shown as an alternative during the SR 33 9/24/2013 workshop. Figure A-2 of DOA shows the proposed intersection improvements which do not involve acquisition of ROW from Tenoroc FMA along SR 659 (aka N. Combee Rd.).

If you need any additional information, please contact me.

Thank you,

**Martin Horwitz**  
Environmental Project Manager

FDOT District 1  
801 N. Broadway Avenue  
P.O. Box 1249  
Bartow, Florida 33830  
(863)519-2805

---

**From:** [Cathy.Kendall@dot.gov](mailto:Cathy.Kendall@dot.gov) [<mailto:Cathy.Kendall@dot.gov>]  
**Sent:** Tuesday, November 12, 2013 6:44 PM  
**To:** Horwitz, Martin  
**Cc:** [Benito.Cunill@dot.gov](mailto:Benito.Cunill@dot.gov)  
**Subject:** SR 33 4(f) DOA and use

Hello Martin,

I have reviewed the Section 4(f) determination of applicability for the SR 33 project.

I found in the Appendix of the packet the letter from the Agency with jurisdiction for the property, but I see they did not answer as to whether or not they consider the property as a significant recreation area (they indicated that the impact to the property may be significant). I was also unclear on the recommendation in your cover letter that states that the project will not use the Tenorac FMA. From the maps that you provided in the packet, as well as the statement from the Agency with Jurisdiction, it seems that the project would take a strip of the Tenorac FMA and potentially constitute a Section 4(f) use.

Can you provide any additional clarification?

Thanks,

**Cathy Kendall, AICP**  
**Acting Director of Technical Services**  
**FHWA - FL, PR and VI**  
**545 John Knox Road, Suite 200**

Tallahassee, FL 32303  
(850) 553-2225  
[cathy.kendall@dot.gov](mailto:cathy.kendall@dot.gov)