

EXHIBIT G

2006 & 2011 Land Management Reviews

**Land Management Review of
Okaloacoochee Slough State Forest**

Lease No. 4246 & 4247

January 25, 2006

Prepared by Division of State Lands Staff

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For

Okaloacoochee Slough State Forest Review Team

FINAL

March 23, 2006,

Land Manager:	DOF
Area:	29,258 acres
County:	Hendry & Collier
Mgmt. Plan Revised:	10/24/02
Mgmt. Plan Due:	10/24/12

Management Review Team Members

Agency Represented	Team member Appointed	Team member In attendance
DOF	Bill Korn	Bill Korn
DEP-District	Richard Orth	Richard Orth
FWC	Steve Coughlin	Steve Coughlin
SWCD	Sonny Mowbray	Sonny Mowbray
Private Land Manager	John Capece	John Capece
FPS	Philip Myers	Philip Myers
Observer (FNAI)	Carolyn Kindell	
Observer (DOF)	Greg Cox	
Observer (DOF)	Hank Graham	

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 team findings is given to the managing agency under review, the Acquisition and Restoration Council, and the Governor and Cabinet.

Review Site

The management review of Okaloacoochee Slough State Forest considered approximately 29,258 acres in Hendry and Collier counties that are managed by the DOF. 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 management plan update is due on October 24, 2015.

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 “yes” or “no” to this question. All team members agreed Okaloacoochee Slough State Forest 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 “yes” or “no” to this question. All team members agreed Okaloacoochee Slough State Forest is in compliance with the management plan.

Commendations to the Managing Agency

- 1. The team commends the DOF for the exceptional efforts they have made on the roads, trails and access to remote areas of the forest. (VOTE 6+, 0-)**
- 2. The team commends the DOF for the construction of low water crossings along the area. (VOTE: 6+, 0-)**
- 3. The team commends the DOF for restoring swale flow through the Wild Cow Island causeway. (VOTE 6+, 0-)**
- 4. The team commends the DOF for the exotic biocide cooperative testing program with IFAS. (VOTE 6+, 0-)**
- 5. The team commends the DOF for the excellent use of forestry management techniques, i.e. chopping, prescribed burning, reforestation. (VOTE 6+, 0-)**
- 6. The team commends the DOF for their excellent exotics eradication program consisting of control and survey. (VOTE 6+, 0-)**

7. The team commends the DOF for coordination with FWC on land management and public use activities that affect panther populations. (VOTE 6+, 0-)

Exceptional Management Actions

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

Exceptional management actions:

- Management of the natural communities including the swale, basin & depression marsh, mesic hammock and wet prairie.
- Management of the protection and preservation of the plants and animals listed species.
- Management of the cultural resources protection and preservation and cultural resources survey.
- Management of the quality of the prescribed burns.
- Management of the wildlife habitat and hunting/fishing quality.
- Management of the hydrologic/geologic function and alteration including roads/culverts and low water crossings
- Management of the resource protection including gates and fencing, boundary surveys, signage, and law enforcement presence.
- Management of public access including roads, parking, recreational opportunities, management of visitor impacts, interpretive facilities and signs and environmental education/outreach.
- Management of maintenance including waste disposal and sanitary facilities.
- Management of non-native invasive plants

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 the addition of professional wildlife biological support. (VOTE: 6+, 0-)

Manager's Response:

The Division of Forestry prioritizes additional staff needs based upon, our agency's statewide budget resources and priorities, and also upon legislative approval and appropriation.

2. The team recommends that DOF take administrative and planning actions to minimize future hydrologic impacts along the west boundary where residential development is anticipated. (VOTE: 6+, 0-)

Manager's Response:

The Okaloacoochee Slough S.F. will work with the Forest Hydrology section in this area to determine the amount of agency responsibility, and the best course of action.

3. The team recommends that management actions be developed to safeguard the protection of ground cover if the survival of planted pines results in a closed canopy. (VOTE: 6+, 0-)

Manager's Response:

The OSSF will monitor groundcover health and diversity and work with the Forest Management Bureau to mitigate overstock conditions as they arise.

4. The team recommends that DOF contact DEP and SFWMD to establish a surface and ground water monitoring program to create a baseline dataset useful in assessing the ambient water conditions and evaluating impacts from adjacent lands. (VOTE: 5+, 0-, 1 abstain)

Manager's Response:

This issue is similar to that raised in recommendation #2. As with that response, the Okaloacoochee Slough S.F. will work through the Forest Hydrology/Wetlands section to determine the degree of agency responsibility and the best course of action.

5. The team recommends the DOF increase staffing and equipment resources on site to conduct a more aggressive prescribed fire program that includes burning in the slough. (VOTE: 6+, 0-)

Manager's Response:

The Division of Forestry prioritizes additional staff needs based upon, our agency's statewide budget resources and priorities, and also upon legislative approval and appropriation.

Checklist findings

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

1. Discussion in the management plan to address the management issues related to wet prairie.(p)

Manager's Response:

The FNAI historic community type map was recently completed and individual restoration plans and prescriptions for each community type based on the survey are being reviewed. The wet prairie community type was just recently identified, and restoration/maintenance plans are being developed.

2. Discussion in the management plan to address insufficient management actions related to the mesic flatwoods. (f)

Manager's Response:

As explained during the tour, continued efforts will focus on establishing appropriate fire intervals to achieve maintenance condition throughout all mesic communities. Regards the old fields and pastures enveloped in invasive torpedo grasses, more intensive control and restoration efforts will be initiated once an effective and safe control strategy is identified.

3. Discussion in the management plan to address issues and management actions related to the listed plants.(p)

Manager's Response:

At the time of the writing of the plan, there were no listed plants identified. The Okaloacoochee Slough S.F. will work with the FWCC biologist, as well as, our own Division biologists to determine the best course of action in protecting listed plants. The next plan update will discuss those actions.

4. Discussion in the management plan related to insufficient management actions to restore farm fields and eucalyptus.(f)

Manager's Response:

The FNAI historic community mapping has been completed, and is being used as the basis for future restoration work in these communities. The historic communities that these areas occupy will determine the prescription for restoration. This strategy is part of the community restoration plans being developed by the Division.

5. Discussion in the management plan as to the hydrologic/geologic function of the low water crossings.(p)

Manager's Response:

In future plan updates general construction techniques will be outlined, however, this is part of the Road Plan prepared and maintained for each state forest. The reason being that road construction and technology, materials, techniques, and equipment are continually refined and updated, and a 10-year resource management plan would not accurately reflect those changes.

6. Discussion in the management plan of the need to monitor ground water quality and quantity, and surface water quality.(p.f)

Manager's Response:

This is outside of the role of the Division of Forestry. We are not mandated, staffed nor funded to be involved in these activities. We have and will continue to cooperate with outside agencies involved with water quality/quantity monitoring.

7. Discussion in management plan of the adjacent property concerns including expanding development.(p)

Manager's Response:

The optimal boundary map is an attempt to capture those concerns. The optimal boundary map shows the most desired adjacent land in order to protect and maintain the function of communities located on the forest. The boundaries are also determined due to their operational significance and value in carrying out management on the forest. As the Division of Forestry has very little influence over private land uses, optimal boundary maps are adequate in expressing concerns, and provide an avenue for future lands to be purchased.

8. Discussion in the management plan of the water resources including hydro-period alteration and water level alteration.(p)

Manager's Response:

All of the natural resources on the forest are addressed in the plan, to include the importance of the Okaloacoochee Slough in the landscape, and as the headwaters for the Fakahatchee Strand and Big Cypress Basin. In reference to hydro-period alteration and water level alterations, the effects have been minimal, as depicted by the 1940 aerial photographs of the property. Finally, any hydro-period alterations would be a result of off-property drainage/flood controls, which the forest has no control over.

9. Discussion in the management plan of the addressing the issues dealing with buildings and staffing.(p f)

Manager's Response:

The priorities in structures and staffing are addressed under management needs, and are requested each year through the Division's legislative budget process.

Team Member's Comments

Natural Communities: protection and maintenance: (I.A)

- Mgt. plan needs to include the revised FNAI natural communities map. Excellent discussion in mgt. plan regarding the existing conditions, desired future condition and restoration needs. Flatwoods have been supplemented with South Florida slash planting, however more frequent prescribed fire is needed. Swale needs a program of prescribed fire to retard willow and stimulate saw grass.
- Dome swamp was absorbed into swale acres.
- Maintenance of exotics 95% of exotics removed from hammocks.
- Flatwoods have not gotten to burn maintenance, but are better with exotics.

Listed Species: protection and preservation (I.B1, I.B.2)

- Include listed plants in next version of mgt. plan.
- Some roads have speed limits of 35 mph; need close coordination with FWCC on panther inhabitation and other proactive issues with the panther protection crews.
- Good communication between agencies regarding the panther mgt. and protection issues. Mgt plan needs to be updated to include observations and mgt needs as it relates to listed plants recently discovered.

Cultural Resources: (II.A; II.B)

- Archeological survey has been completed. Four sites are listed. The mgt plan should be updated to reflect recent discoveries and significance of the sites.
- Reports have been completed prior to construction of structures 4 sites reported.

Prescribed Fire (Natural Community Maintenance): (III.A)

- Good initial work to establish burning program on forested uplands. More effort is needed to reduce fuels and improve burn frequency.
- Burn quality looked good and the move to growing season is to be commended.
- Allocation of equipment should improve burns on swales, marshes, and other wet areas.
- Still many winter burns.

Restoration of Disturbed Natural Communities: (III.B)

- Restoration of more pristine areas inhibits restoration plans at this time I agree with this strategy.
- Not much accomplished with farm fields but the reviewer agrees this should be a low priority, other more important areas to work on.
- A good plan of priority approach to maintain and restore the natural communities first and then going back to farm fields which they have to address burning and some spraying.
- Good reforestation efforts. Mix of roller chopping and burning site prep appears to be effective.

Wildlife Management (III.C)

- Strong effort to address hunting needs; fishing holes do exist however the site is not set for fishing.

Non-native Invasive and Problem Species: (III.D)

- Animals are not a problem – some rule changes about hogs have been used. Good work has been done with exotic plants but a problem still exists.
- Should make use of GPS enabled cell phones given to exotic contractors.
- Hogs are being eliminated or reduced.
- Torpedo grass is yet to be attacked. The location and extent has been done but implementation is yet to occur do to priority.
- Treatment sites are being mapped and monitored.
- Excellent proactive measures have been taken for all exotic plants except for torpedo grass. New no limit rules on hunting of hogs next year appears to address the increased population.

Hydrologic/Geologic Function (III.E)

- A road mgt plan has been recently completed to address and guide road construction.
- Excellent steps being taken to install low water crossings in conjunction with recent road work to ensure natural sheet flow. Continued research (awaiting NRCS grant) and planning is needed to address restoration of the canal on north side of property.
- WMD is monitoring surface flows at north and south end of OK swale.
- Construction efforts are at grade with designed low water crossings, ditches maybe outside control of mgt plan.
- Wells are available at campgrounds. Need to monitor species composition to determine need to perform a well survey of location, depth and water quality.
- Canals need to be filled WRP has been sought to fill in ditches.
- Managers are doing good work but more needs to be done.
- Need for over all water budget and adjacent development impact minimization.
- Water impacts, adjacent lands impact. Landscape restoration (north edge) represents areas of need for water monitoring.
- More quality monitoring needs to be done.
- The road improvements have been well done to protect hydrology only two canals exist plus at present time there is a limited amount of actions available.

Resource Protection: (F)

- FWC provides the law enforcement.
- Signage at entrances and at road intersections is very thorough, however some damage has occurred that requires straightening and repairing existing signs.

Adjacent Property Concerns: (III.G)

- Optimum boundary map is monitored and coordinated with FWC staff and has been revised since completion of the current mgt. plan.
- Manager need to assess impact of nutrient loading caused by inflow of water from ranch (ALICO) southeast of the forest.
- More involvement in water districts monitoring.
- Some concerns with water level alteration, nutrient loading from off site drainage to state park lands.
- The canal and sheet flow is impacting the slough. More attention should be addresses to this issue to assure that the Ok Slough is protected to its fullest legal extent.
- The northeastern and western edges have adjacent user issues relative to water levels and quality that need to be addressed.
- Development is coming but not a major issue yet, some hydrology issues with neighbor to the east.

Public Access and Education: (IV.1; IV.2; IV.3; IV.4)

- Adequate roads exist and further road building should not continue.

- Need to establish sustainable carrying capacity need local classroom lecture program to establish long term constituency.
- Talks are given to young people on the ecology of the OK forest.
- Effort to produce more maps of trails correlated with Aerial photos.
- Excellent road improvements to allow better mgt. access as well as permit all seasons ingress/egress to the general public. Many recreational opportunities for very rustic hiking and camping experiences. Good kiosks and good initial brochure.

Management Resources: (V.2. V.3; V.4)

- A rollagon is needed to accomplish burning in the OK swale. The office facility proposed in the mgt plan has not been funded.
- Staff positions are needed for this biological work and prescribed fire mgt. The priority appears to be for a state lands forest ranger crew with the appropriate fire equipment (tractor plow).
- These issues are being addressed and more will be required with future use.
- Five year plan provides for office space and closed shop facilities. Need a rollagon, and heavy equipment.
- Exceptional effort from staff. Grossly under staffed/contract work has problems with red tape. Easy jobs can be contracted, in house work is more efficient.
- Need low-boy, rollagon, etc. (large equipment).
- They need various staff as outlined in plan request.
- Office space is not adequate and new shop area is needed. Some large equipment is still needed.
- Staffing is not adequate and greatly needed. Rangers and a biologist are needed.
- Area manager feel they are severely under staffed.

Managed Area Uses: (VI.A, VI.B)

- They are not just "consistent" but essential to maintaining public support and providing educational function.
- More maps identify trails to help use.

Exceptional Management Actions

- Roads are opening area to public.
- Camping facilities and approach to management of overnight visitors.
- Excellent program for reforestation chopping.
- Excellent exotic control program consisting of control and survey.
- High levels of cooperation and coordination with FWC on land management and public use.
- Excellent use of forestry mgt techniques, i.e. chopping, prescribed burns and reforestation.

Areas of insufficient management

- More wildlife mgt. input.

Recommendations for Improving Management of this Site:

PLAN REVIEW		1	2	3	4	5	6	AVERAGE
Natural Communities (I.A)								
Swale (15,746 acres)	I.A.1	1	1	1	1	1	1	1.00
Mesic Flatwoods (10,029 acres + 356 acres)	I.A.2	1	1	1	1	1	1	1.00
Basin Marsh (1,834 acres)	I.A.3	1	1	1	0	1	1	0.83
Depression Marsh (1.539 acres)	I.A.4	1	1	1	0	1	1	0.83
Dome Swamp (1,16297 acres)	I.A.5	1	1	1	0	1	1	0.83
Mesic Hammock (991 acres)	I.A.6	1	1	1	0	1	1	0.83
Wet Prairie (1,689 acres)	I.A.7	1	0	0	0	1	1	0.50
Listed species: Protection & Preservation (I.B)								
Animals	I.B.1	1	1	1	1	1	1	1.00
Plants	I.B.2	0	0	0	1	1	1	0.50
Cultural Resources (Archeological & Historic sites) (II.A,II.B)								
Cultural Res. Survey	II.A	0	1	1	1	1	1	0.83
Protection and preservation	II.B	1	1	1	1	1	1	1.00
Resource Management, Prescribed Fire (III.A)								
Area Being Burned (no. acres)	III.A.1	1	1	1	1	1	1	1.00
Frequency	III.A.2	1	1	1	1	1	1	1.00
Quality	III.A.3	1	0	1	1	1	1	0.83
Restoration Areas (III.B)								
Farm Fields	III.B.1	1	0	1	1	1	1	0.83
Eucalyptus	III.B.2	1	1	1	0	1	1	0.83
Mesic Flatwoods	III.B.3	1	0	0	1	1	1	0.67
Wildlife Management (III.C)								
Wildlife Habitat	III.C.1	1	1	1	1	1	1	1.00
Hunting/ Fishing Quality	III.C.2	1	1	1	1	1	1	1.00
Non-Invasive & Problem Species (III.D)								
Animals	III.D.1	1	1	0	1	1	1	0.83
Plants	III.D.2	1	1	1	1	1	1	1.00
Hydrologic/Geologic function Hydro-Alteration (III.E.1)								
Roads/culverts	III.E.1.a	1	1	1	1	1	1	1.00
Ditches/Canals	III.E.1.b	1	0	1	1	1	1	0.83
Low Water Crossings	III.E.1.c	1	0	0	1	1	0	0.50
Ground Water Monitoring (III.E.2)								
Ground water quality	III.E.2.a	1	0	0	0	0	0	0.17
Ground water quantity	III.E.2.b	1	0	0	0	0	0	0.17

Surface Water Monitoring (III.E.3)								
Surface water quality	III.E.3.a	0	0	0	0	0	1	0.17
Surface water quantity	III.E.3.b	0	0	0	1	0	1	0.33
Resource Protection (III.F)								
Boundary survey	III.F.1	1	1	1	1	1	1	1.00
Gates & fencing	III.F.2	1	1	1	1	1	1	1.00
Signage	III.F.3	1	1	1	0	1	1	0.83
Law enforcement presence	III.F.4	1	1	0	0	1	1	0.67
Adjacent Property Concerns (III.G)								
Land Use								
Expanding development	III.G.1a	1	0	0	0	1	1	0.50
Water Resources								
Hydro-period Alteration	III.G.2a	0	1	0	0	1	1	0.50
Water Level Alteration	III.G.2b	0	1	0	0	1	1	0.50
Inholdings/additions	III.G.3	1	1	1	0	0	1	0.67
Public Access & Education								
Public Access-Maintenance								
Roads	IV.1a	1	1	1	0	1	1	0.83
Parking	IV.1b	1	1	1	0	1	1	0.83
Recreational Opportunities	IV.2	1	1	1	0	1	1	0.83
Management of Visitor Impacts	IV.3	1	0	0	0	1	1	0.50
Interpretive facilities and signs	IV.4	1	0	1	0	1	1	0.67
Environmental education/outreach	IV.5	1	0	1	0	1	1	0.67
Managed Area Uses								
Existing Uses								
Recreational Trails	VI.A.1	1	1	1	1	1	1	1.00
Camping	VI.A.2	1	1	1	1	1	1	1.00
Canoeing	VI.A.3	1	1	1	1	1	1	1.00
Hunting	VI.A.4	1	1	1	0	1	1	0.83
Fishing	VI.A.5	1	1	1	0	1	1	0.83
Environmental Education	VI.A.6	1	1	1	0	1	1	0.83

FIELD REVIEW		1	2	3	4	5	6	AVERAGE
Natural Communities (I.A)								
Swale (15,746 acres)	I.A.1	3	4	4	4	4	4	3.83
Mesic Flatwoods (10,029 acres + 356 acres)	I.A.2	2	2	2	2	2	2	2.00
Basin Marsh (1,834 acres)	I.A.3	4	4	5	3	4	4	4.00
Depression Marsh (1.539 acres)	I.A.4	4	4	5	3	4	4	4.00
Dome Swamp (1,16297 acres)	I.A.5	3	3	4	4	2	3	3.17
Mesic Hammock (991 acres)	I.A.6	4	4	4	3	2	4	3.50
Wet Prairie (1,689 acres)	I.A.7	4	4	5	4	3	4	4.00
Listed species: Protection & Preservation (I.B)								
Animals	I.B.1	4	4	4	3	4	5	4.00
Plants	I.B.2	3	4	4	3	4	5	3.83
Cultural Resources (Archeological & Historic sites) (II.A,II.B)								
Cultural Res. Survey	II.A	4	4	5	4	3	5	4.17
Protection and preservation	II.B	4	4	5	4	3	5	4.17
Resource Management, Prescribed Fire (III.A)								
Area Being Burned (no. acres)	III.A1	3	3	3	3	3	3	3.00
Frequency	III.A.2	3	3	3	2	3	4	3.00
Quality	III.A.3	4	5	4	4	4	4	4.17
Restoration of Ruderal Areas (III.B)								
Farm Fields	III.B.1	2	1	2	2	4	3	2.33
Eucalyptus	III.B.2	2	2	2	1	4	3	2.33
Mesic Flatwoods	III.B.3	4	1	5	2	4	3	3.17
Wildlife Management (III.C)								
Wildlife Habitat	III.C.1	3	5	4	1	4	5	3.67
Hunting/ Fishing Quality	III.C.2	3	5	4	1	3	5	3.50
Non-Invasive & Problem Species (III.D)								
Animals	III.D.1	2	5	2	2		5	3.20
Plants	III.D.2	4	4	4	3		3	3.60
Hydrologic/Geologic function Hydro-Alteration (III.E.1)								
Roads/culverts	III.E.1.a	4	4	4	4	3	5	4.00
Ditches/Canals	III.E.1.b	3	3	3	4	3	4	3.33
Low Water Crossings	III.E.1.c	5	4	4	4	3		4.00
Ground Water Monitoring (III.E.2)								
Ground water quality	III.E.2.a	3	4	2		1		2.50
Ground water quantity	III.E.2.b	3	4	2	1	1		2.20

Surface Water Monitoring (III.E.3)								
Surface water quality	III.E.3.a	3	4	2		1	2	2.40
Surface water quantity	III.E.3.b	4	4	3		1	2	2.80
Resource Protection (III.F)								
Boundary survey	III.F.1	4	4	5	3	3	5	4.00
Gates & fencing	III.F.2	4	4	4	3	3	4	3.67
Signage	III.F.3	4	3	5	4	3	5	4.00
Law enforcement presence	III.F.4	4	4	5	4	3	4	4.00
Adjacent Property Concerns (III.G)								
Land Use								
Expanding development	III.G.1a	3	4	3		3		3.25
Water Resources								
Hydro-period Alteration	III.G.2a	2	3	3	3	2	4	2.83
Water Level Alteration	III.G.2b	2	3	3	3	2	4	2.83
Inholdings/additions	III.G.3	4	3	4	3		3	3.40
Public Access & Education								
Public Access-Maintenance								
Roads	IV.1a	4	5	5	4	4	5	4.50
Parking	IV.1b	3	4	4	4	4	5	4.00
Recreational Opportunities	IV.2	4	5	4	2	3	5	3.83
Management of Visitor Impacts	IV.3		5	4	4	3	5	4.20
Interpretive facilities and signs	IV.4	3	5	4	4	3	5	4.00
Environmental education/outreach	IV.5	3	4	4	3	3	4	3.50
Management Resources								
Maintanance								
Waste disposal	V.1a	3	4	4	4	3	4	3.67
Sanitary facilities	V.1b	3	4	4	4	3	4	3.67
Infrastructure								
Buildings	V.2a	3	2	2	4		1	2.40
Equipment	V.2b	2	3	3	4		2	2.80
Staff	V.3	2	1	2	4	2	1	2.00
Funding	V.4	3	3	4	4	3	1	3.00

Name of Site: Okaloacoochee Slough SF

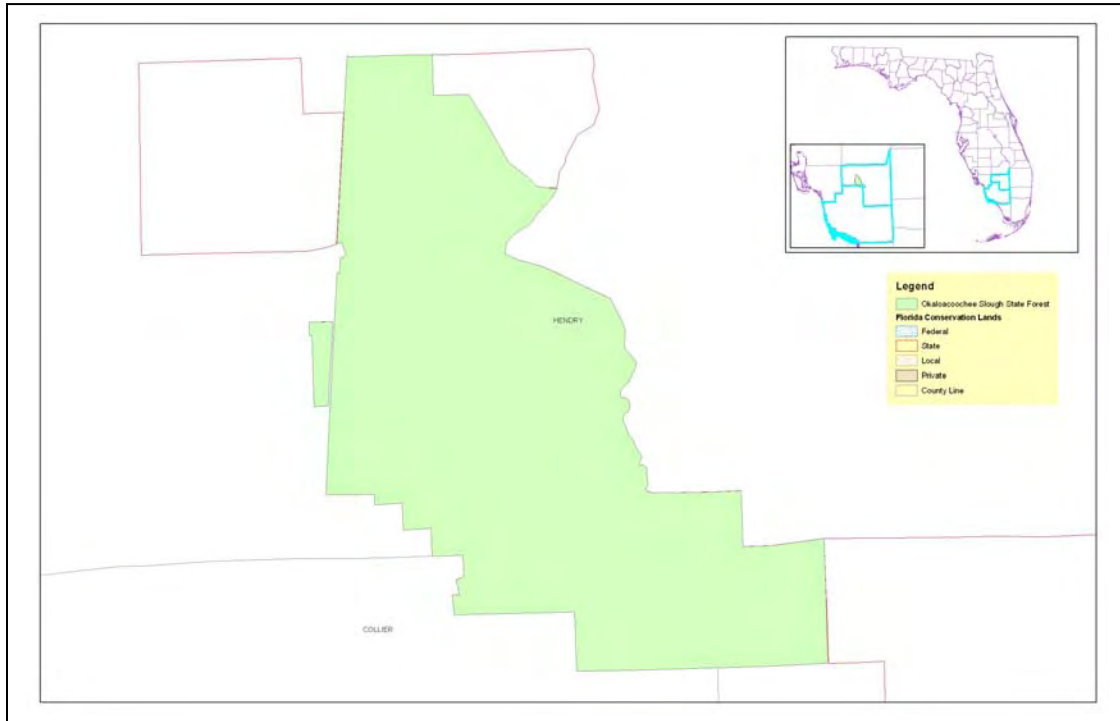
County: Hendry and Collier Counties

Managed by: Department of Agriculture and Consumer Services
Florida Forest Service

Acres: 32,039
Area Reviewed: Entire tract

Review Date: 5/5/11

Management Plan Approval Date: 11/26/02



Review Team Determination

Managed in accordance with
Acquisition purpose? Yes =6, No = 0



Management practices, including public access,
in compliance with the management plan? Yes =6, No = 0



Categories	Management Plan Review	Field Review
Natural Communities	0.78	3.47
Listed Species	0.88	4.61
Natural Resource Survey	0.88	3.85
Cultural Resources	0.92	4.00
Prescribed Fire	1.00	3.72
Restoration	0.40	3.12
Exotic Species	0.39	3.79
Hydrology	0.39	3.26
Surface Water Monitoring	0.83	3.50
Resource Protection	0.96	4.33
Adjacent Property Concerns	0.17	3.08
Public Access & Education	0.97	3.58
Management Resources	N/A	3.33
Managed Area Uses	1.00	N/A
Buildings, Equipment, Staff & Funding	N/A	2.42

Consensus Commendations to the Managing Agency

The following commendations resulted from discussion and vote of the review team members.

1. The team commends the FFS for their continued efforts to increase prescribe fire acreages on this forest. (VOTE: 6+, 0-)



2. The team commends the FFS staff for their aggressive exotic plant control program. (VOTE: 6+, 0-)



3. The team commends the staff for their establishment of the south Florida slash pine seed collection area and plans to plant trees grown from seed collected on site in future plantings. (VOTE: 6+, 0-)



4. The team commends the FFS staff for an excellent level of access at this forest, to include a system of improved and well maintained forest roads. (VOTE: 6+, 0-)



5. The team commends the FFS on implementation of growing season burns on the forest. (VOTE: 6+, 0-)



6. The team commends the FFS for mowing rather than rollerchopping pine plantations after establishing to reduce shrubs, and allow burning soon as possible. (VOTE: 6+, 0-)



Consensus Recommendations to the Managing Agency

The following recommendations resulted from a discussion and vote of review team members. The management plan must include responses to the recommendations identified below.

1. The team recommends that FFS consider opportunities to increase surface water quality and quantity monitoring as it relates to potential areas of concern. (VOTE: 6+, 0-)



Managing Agency Response: FFS will install staff gauges and basic water monitoring equipment in the area of the proposed sand mine to watch for any potential water problems. Additionally, as future projects emerge similar actions will be taken in an around those areas that are considered sensitive.

2. The team recommends additional staff to further exotic plant control and burning. (VOTE: 6+, 0-)



Managing Agency Response: This is a function of the agency as a whole, and is not directly within the purview or authority of this forest or district. However, opportunities to request special legislative funding for additional staff are utilized as they become available– the district continues to identify the need for additional park rangers on the OSSF forest.

Field Review Checklist Findings

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

- Natural Communities, regarding basin marsh, depression marsh, mesic hammock, wet flatwoods, strand swamp and hydric hammock.
- Listed Species, regarding animal, Florida panther and plant inventory.

- Natural Resources, regarding fire effects monitoring, other habitat management effects monitoring, and invasive species survey/monitoring.
- Cultural Resources, regarding the cultural resource survey, protection and preservation of those resources.
- Resource Management, regarding the areas being burned and the frequency and quality of the burns.
- Non-native, Invasive and Problem Species, regarding the prevention and control of plants and prevention of animals and pests/pathogens.
- Hydrologic/Geologic Function, regarding roads and culverts.
- Surface Water Monitoring, regarding the water quality and quantity.
- Resource Protection, regarding boundary surveys, gates/fencing, signage and law enforcement presence.
- Adjacent Property Concerns, regarding inholdings and additions.
- Public Access & Education, regarding roads, parking, recreational opportunities, and the management of visitor impacts.

Items Requiring Improvement Actions in the Management Plan

The following items received low scores on the review team checklist, which indicates that the text noted in the Management Plan Review does not sufficiently address this issue (less than .5 score on average.). Please note that overall good scores do not preclude specific recommendations by the review team requiring remediation. The management plan must include responses to the checklist items identified below:

1. Increased restoration of ruderal areas, specifically eucalyptus, with documentation in the management plan.

Managing Agency Response: The 10-Year Resource Management Plan serves as a guiding document to all resource activities within a ten-year period. The inclusion of site-specific strategies is neither practical nor appropriate for this document. Instead, the plans associated with specific site restoration strategies – such as eucalyptus restoration, are included in the OSSF Exotics Control Plan, an in-house document that is updated every two years.

2. Discussion regarding deficiencies with non-native, invasive and problem species, specifically the prevention and control of pests/pathogens, and prevention of plants and animals; with documentation in the management plan.

Managing Agency Response: Same as response as in #1 above.

3. Hydrologic/Geologic function, more specifically ditches and canals, with documentation in the management plan.

Managing Agency Response: Currently, OSSF is part of a larger feasibility study area being conducted by the SFWMD. Management and function of the major ditches and canals located on the forest are all directed by the SFWMD as they must be addressed at a landscape level as these drainage structures run across multiple ownerships. This acknowledgement will be included in future management plan updates.

4. Adjacent property concerns, more specifically the sand mine, inholdings/additions, discussion of potential surplus land determination and surplus lands that have been identified; with documentation in the management plan.

Managing Agency Response: At the time the current mgt plan was written, the Keri Road sand mine proposal did not exist. Currently, it does not present a significant concern for the Florida Forest Service (FFS) as many of the issues that the FFS had originally have been discussed and mitigated through the permitting processes. The current plan identifies an optimal boundary and no surplus lands have ever been identified associated with this state forest. In future plan updates, both of these issues will be addressed specifically in more detail.

PLAN REVIEW		1	2	3	4	5	6	AVERAGE
Natural Communities (I.A)								
Slough Marsh	I.A.1	0	1	1	1	1	1	0.83
Mesic Flatwoods	I.A.2	0	1	1	1	1	1	0.83
Basin Marsh	I.A.3	0	1	1	1	1	1	0.83
Depression Marsh	I.A.4	0	1	1	1	1	1	0.83
Dome Swamp	I.A.5	0	1	1	1	1	0	0.67
Mesic Hammock	I.A.6	0	1	1	1	1	1	0.83
Wet Prairie	I.A.7	0	1	1	1	1	0	0.67
Wet Flatwoods	I.A.8	0	1	1	1	1	0	0.67
Strand Swamp	I.A.9	0	1	1	1	1	1	0.83
Hydric Hammock	I.A.10	0	1	1	1	1	1	0.83
Listed species:Protection & Preservation (I.B)								
Animal Inventory	I.B.1	1	1	1	1	1	0	0.83
Florida Panther	I.B.1.a		1	1	1	1	1	1.00
Plant Inventory	I.B.2		1	1	1	1	0	0.80
Natural Resources Survey/Management Resources (I.C)								
Listed species or habitat monitoring	I.C.2		0	1	1	1	0	0.60
Other non-game species or habitat monitoring	I.C.3		1	1	1	1	1	1.00
Fire effects monitoring	I.C.4		1	1	1	1	1	1.00
Other habitat management effects monitoring	I.C.5		1	1	1	1	1	1.00
Invasive species survey / monitoring	I.C.6		1	1	1	1	0	0.80
Cultural Resources (Archeological & Historic sites) (II.A,II.B)								
Cultural Res. Survey	II.A	1	1	1	1	1	1	1.00
Protection and preservation	II.B	1	1	1	1	1	0	0.83
Resource Management, Prescribed Fire (III.A)								
Area Being Burned (no. acres)	III.A.1		1	1	1	1	1	1.00
Frequency	III.A.2		1	1	1	1	1	1.00
Quality	III.A.3		1	1	1	1	1	1.00
Restoration of Ruderal Areas (III.B)								
Farm Fields	III.B.1		1	0	1	1	0	0.60
Eucalyptus	III.B.2		0	0	1	0	0	0.20
Non-Native, Invasive & Problem Species (III.E)								
Prevention								
prevention - plants	III.E.1.a	0	0	0	0	0	0	0.00
prevention - animals	III.E.1.b	0	0	0	0	0	1	0.17
prevention - pests/pathogens	III.E.1.c	0	0	0	0	0	0	0.00

Control								
control - plants	III.E.2.a	1	1	1	1	1	0	0.83
control - animals	III.E.2.b	0	1	1	1	1	1	0.83
control - pest/pathogens	III.E.2.c	0	0	1	1	1	0	0.50
Hydrologic/Geologic function Hydro-Alteration (III.F.1)								
Roads/culverts	III.F.1.a	1	1	1	1	1	1	1.00
Ditches	III.F.1.b	0	0	0	0	0	1	0.17
Canals	III.F.1.c	0	0	0		0	0	0.00
Surface Water Monitoring (III.F.3)								
Surface water quality	III.F.3.a	1	1	1	1	1	0	0.83
Surface water quantity	III.F.3.b	1	1	1	1	1	0	0.83
Resource Protection (III.G)								
Boundary survey	III.G.1	1	1	1	1	1	1	1.00
Gates & fencing	III.G.2	1	1	1	1	1	1	1.00
Signage	III.G.3	1	1	1	1	1	1	1.00
Law enforcement presence	III.G.4	0	1	1	1	1	1	0.83
Adjacent Property Concerns (III.H)								
Land Use								
Sand Mine (proposed)	III.H.1.a	0	0	0	0	0	0	0.00
Inholdings/additions	III.H.2	0	1	0	1	1	0	0.50
Discussion of Potential Surplus Land Determination	III.H.3	0	0	0	0	0	1	0.17
Surplus Lands Identified?	III.H.4	0	0	0	0	0	0	0.00
Public Access & Education								
Public Access								
Roads	IV.1.a	1	1	1	1	1	1	1.00
Parking	IV.1.b	1	1	1	1	1	1	1.00
Environmental Education & Outreach								
Wildlife	IV.2.a		1	1	1	1	1	1.00
Invasive Species	IV.2.b		1	1	1	1	1	1.00
Habitat Management Activities	IV.2.c		1	1	1	1	1	1.00
Interpretive facilities and signs	IV.3		1	1	1	1	1	1.00
Recreational Opportunities	IV.4		1	1	1	1	1	1.00
Management of Visitor Impacts	IV.5		1	1		1	0	0.75
Managed Area Uses								
Existing Uses								
Recreational Trails	VI.A.1	1	1	1	1	1	1	1.00
Camping	VI.A.2	1	1	1	1	1	1	1.00
Canoeing	VI.A.3	1	1		1	1	1	1.00
Hunting	VI.A.4	1	1	1	1	1	1	1.00
Fishing	VI.A.5	1	1		1	1	1	1.00
Environmental Education	VI.A.6	1	1	1	1	1	1	1.00
Research	VI.A.7	1	1	1	1	1	1	1.00

Proposed Uses								
Boardwalk	VI.B.1	1	1	1	1	0	1	0.83

Items Requiring Improvement Actions in the Field

The following items received low scores on the review team checklist, which indicates that management actions noted during the Field Review were not considered sufficient (less than 2.5 score on average). Please note that overall good scores do not preclude specific recommendations by the review team requiring remediation. The management plan must include responses to the checklist items identified below:

1. Management of natural communities, specifically the dome swamp, with documentation in the management plan.

Managing Agency Response: There is a section within the management plan entitled "Description of Natural Communities/Cover Types and Proposed Management Activities" where the dome swamp habitat is addressed specifically. This approach will continue in future plan revisions with updates provided on current condition and management needs. FFS will inspect, treat, and monitor the dome swamp communities in accordance with the OSSF exotic species control plan and the annually updated 5-year action plan for the forest. When staff is added and additional grant funding becomes available, more intensive treatment and monitoring will occur. Every effort is made to visit this community every two years to treat for all Category I non-native, invasive plants. It should be noted too that this specific community type, due to its geographic location, is subject to a large exotic plant seed bank that occurs offsite on adjacent properties.

2. The need for management resources, specifically buildings, staff and funding, with documentation in the management plan.

Managing Agency Response: The current (and future plans) list funding and resource needs. Progress is made as funding is made available and competing needs within the agency are addressed.

FIELD REVIEW		1	2	3	4	5	6	AVERAGE
Natural Communities (I.A)								
Slough Marsh	I.A.1	3	4	3	4	3	3	3.33
Mesic Flatwoods	I.A.2	2	3	3	3	3	3	2.83
Basin Marsh	I.A.3	4	4	4	3	4	4	3.83
Depression Marsh	I.A.4	4	5	4	4	4	4	4.17
Dome Swamp	I.A.5	2	2	2	X	2	2	2.00
Mesic Hammock	I.A.6	3	4	4	4	4	4	3.83
Wet Prairie	I.A.7	3	3	3	X	3	3	3.00
Wet Flatwoods	I.A.8	4	5	4	3	4	4	4.00
Strand Swamp	I.A.9	4	5	4	4	3	4	4.00
Hydric Hammock	I.A.10	4	4	3	4	3	4	3.67
Listed species:Protection & Preservation (I.B)								
Animal Inventory	I.B.1	4	5	5	5	5	3	4.50
Florida Panther	I.B.1.a	5	5	5	5	5	5	5.00
Plant Inventory	I.B.2	5	4	4	5	5	3	4.33

Natural Resources Survey/Management Resources (I.C)								
Listed species or habitat monitoring	I.C.2	3	3	3	3	3	3	3.00
Other non-game species or habitat monitoring	I.C.3	4	4	3	3	3	3	3.33
Fire effects monitoring	I.C.4	3	4	4	5	4	4	4.00
Other habitat management effects monitoring	I.C.5	X	5	4	5	4	4	4.40
Invasive species survey / monitoring	I.C.6	5	5	4	5	4	4	4.50
Cultural Resources (Archeological & Historic sites) (II.A,II.B)								
Cultural Res. Survey	II.A	5	5	3	4	4	4	4.17
Protection and preservation	II.B	4	4	3	4	4	4	3.83
Resource Management, Prescribed Fire (III.A)								
Area Being Burned (no. acres)	III.A1	4	4	3	4	4	3	3.67
Frequency	III.A.2	3	4	3	4	4	3	3.50
Quality	III.A.3	4	5	3	4	4	4	4.00
Restoration of Ruderal Areas (III.B)								
Farm Fields	III.B.1	3	3	2	3	3	3	2.83
Eucalyptus	III.B.2	3	3	3	5	X	3	3.40
Non-Native, Invasive & Problem Species (III.E)								
Prevention								
prevention - plants	III.E.1.a	4	4	4	4	3	4	3.83
prevention - animals	III.E.1.b	4	4	3	4	3	4	3.67
prevention - pests/pathogens	III.E.1.c	4	4	3	4	3	4	3.67
Control								
control - plants	III.E.2.a	5	5	4	5	5	5	4.83
control - animals	III.E.2.b	2	4	2	4	4	4	3.33
control - pest/pathogens	III.E.2.c		3	3	4	4	3	3.40
Hydrologic/Geologic function Hydro-Alteration (III.E.1)								
Roads/culverts	III.F.1.a	4	5	4	4	3	5	4.17
Ditches	III.F.1.b	3	4	2	4	2	3	3.00
Canals	III.F.1.c	3	2	2		3	3	2.60
Surface Water Monitoring (III.E.3)								
Surface water quality	III.F.3.a	3	3	5	3	4	3	3.50
Surface water quantity	III.F.3.b	3	2	5	4	4	3	3.50
Resource Protection (III.F)								
Boundary survey	III.G.1	5	4	5	5	4	4	4.50
Gates & fencing	III.G.2	4	4	5	4	4	4	4.17
Signage	III.G.3	4	3	3	4	4	4	3.67
Law enforcement presence	III.G.4	5	5	5	5	5	5	5.00
Adjacent Property Concerns (III.G)								
Land Use								
Sand Mine (proposed)	III.H.1.a	3	X	X	2	X	3	2.67

Inholdings/additions	III.H.2		X	X	X	4	3	3.50
Public Access & Education								
Public Access								
Roads	IV.1.a	5	5	4	5	5	5	4.83
Parking	IV.1.b	3	4	4	5	5	3	4.00
Environmental Education & Outreach								
Wildlife	IV.2.a	3	3	3	3	4	3	3.17
Invasive Species	IV.2.b	3	3	3	3	4	3	3.17
Habitat Management Activities	IV.2.c	3	3	3	3	4	3	3.17
Interpretive facilities and signs	IV.3	2	3	3	3	3	2	2.67
Recreational Opportunities	IV.4	3	4	3	4	4	4	3.67
Management of Visitor Impacts	IV.5	4	4	4	4	4	4	4.00
Management Resources								
Maintenance								
Waste disposal	V.1.a	3	4	3	4	4	3	3.50
Sanitary facilities	V.1.b	3	3	2	4	4	3	3.17
Infrastructure								
Buildings	V.2.a	2	2	3	2	2	3	2.33
Equipment	V.2.b	3	4	4	4	4	4	3.83
Staff	V.3	1	2	3	2	1	2	1.83
Funding	V.4	1	1	3	1	1	3	1.67

Florida Forest Service Manager and Key Staff Present:

- Kevin Podkowka, Manager
- Chris Schmiede, Forester

EXHIBIT H

Management Plan Advisory Group Summary

Okaloacoochee Slough State Forest (OSSF)
10-Year Resource Management Plan

Management Plan Advisory Group (MPAG)
Public Meeting/Public Hearing Summary
Wednesday, July 11, 2012 at 6:00/6:30 pm
at the Dallas B Townsend Agricultural Center
1085 Pratt Boulevard,
Labelle, FL 33935

MPAG Members Present: Affiliation:

Hank Graham	Florida Forest Service, Caloosahatchee Forestry Center Manager
Bonnie McLaughlin	Florida Trail Association, Alligator Amblers Chapter
Willie Cockram	Alico, Inc
Franklin Adams	Florida Wildlife Federation
Joe Bozzo	
for Bert Trammell	South Florida Water Management District
Jean McCollom	Florida Fish and Wildlife Conservation Commission
Margaret England	Hendry/Glades Audubon Society

MPAG Members Absent: Affiliation:

Bruce Reichert	Collier County Soil and Water Conservation District
Sonny Mowbray	Hendry County Soil and Water Conservation District
Jim Coletta	Collier County Commissioner
Karson Turner	Hendry County Commissioner

Members of the General Affiliation:

Public Present:

Michael Duever	Natural Ecosystems
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FFS Staff Present:

Affiliation:

Kevin Podkowka	Florida Forest Service, Forestry Resource Administrator
Chris Schmiede	Florida Forest Service, Forester
John Barrow	Florida Forest Service, Land Planning Coordinator
Cori Hermle	Florida Forest Service, Land Planning Specialist

6:00 p.m. Public Meeting:

The orientation of the Management Plan Advisory Group was convened @ 6:08 pm by Barrow. Barrow started by thanking the MPAG members for attending. Barrow explained to the MPAG members their purpose for tonight's public hearing. Barrow continued by giving an overview of the approval process of a ten-year resource management plan including its history. It was

explained that the ten-year resource management plan should not be viewed as an operational plan but conceptual in its design.

Barrow proposed a brief break until the start of the 7:00 p.m. public hearing.

6:30 p.m. Public Hearing:

The Public Hearing was convened @ 6:30 p.m. by Barrow. Eight (8) MPAG members and one (1) interested citizen were in attendance for the public hearing. Barrow explained the purpose for the evening's hearing. Schmiede gave a brief presentation of the management plan and the focus of the plan. Podkowka pointed out that all of the maps will be updated to reflect the new boundaries from recent land acquisitions in June. Barrow summarized a written comment was received by Kenneth Langeland arguing against the reforestation of eucalyptus on OSSF. Barrow said that the MPAG members would be able to read the full comment at the next day's MPAG meeting. The floor was then opened up to questions or comments by the public.

Below is a summary of comments from the public hearing:

Mr. Duever discussed the positives of the draft management plan (prescribed burning program, exotic management program, identification of desirable site boundaries, uneven aged management, management of native species, low water crossings on roads, and rehabilitation of fire plow lines to restore hydrologic flow). Duever strongly recommended avoiding any mosquito control measures on the forest. Podkowka said that he already requested that the local mosquito control not spray on the forest. Duever recommended that palm harvests be centered on disturbed areas such as old homesites. Podkowka responded that the last palm harvest occurred by an old farmstead and was focused on thinning of palms. Palms were marked by FFS to be excluded from harvest that appeared native to the area or provided a natural community benefit.

Duever asked for clarification on the desired future conditions for wet flatwoods and the description for planned management for wet flatwoods. The desired future conditions states 10-20% coverage of pines, yet it the area will be planted at 600 trees per acre. The proposed eucalyptus plantings will be at 425 trees per acre and that was with the intent to eradicate the groundcover of torpedograss. Barrow pointed out the purpose for stating the desired future condition and what information the management actions subsection covers. The information for the desired future condition for wet flatwoods was drawn from the 2010 Guide to Natural Communities written by the Florida Natural Areas Inventory (FNAI). Duever asked if it was possible for FFS to thin before the native groundcover is completely shaded out and dies, or if a timeline for thinning could be added to the management plan. Podkowka responded that the intent is for FFS to thin those stands over time. Duever pointed out that if thinning doesn't occur in a timely fashion that any native groundcover will be lost due to shading.

Duever asked about the water gauges in the sand mine area. Staff gauges may not be adequate to show the most significant and detectable potential effects of the mine. He encouraged monitoring wells be installed to measure groundwater fluctuations. Podkowka asked if Duever

had specs on the groundwater monitoring equipment and that he'd be happy to get with Duever for further information on that issue after the hearing. Duever provided some details on water gauges he's used in the past. Duever requested that a statement be added to the management plan that FFS would review or provide input on adjacent developments to minimize adverse effects on the forest.

On the eucalyptus reforestation proposal, Duever recommended allowing the seed bank to germinate and then herbicide the torpedograss area. The process may need to be repeated several times until the torpedograss is eradicated. Duever said that the eucalyptus proposal may end up replacing one exotic plant problem for another. Podkowka responded that Florida Fish and Wildlife Conservation Commission (FWC) doesn't provide grants to eradicate torpedograss. McCollom from FWC responded that grants are available for torpedograss control or eradication. Podkowka responded that he would look into the issue. Duever stated that if restoration is the end goal for the proposed area, then planting of eucalyptus may be a longer and costlier way to restore it.

Duever wanted to know why there was so much discussion in the draft plan on water quality issues. Podkowka said that was added to the plan as a result of Land Management Review recommendations. Duever asked if a statement could be added to the plan discussion sources of possible water contamination, or maybe a discussion on whether water quality monitoring is needed or not on the forest.

Barrow thanked everyone for attending and for comments received. He reminded the MPAG members of the 9:00 am start time for the next day's meeting, and that the meeting typically wraps up by noon.

The hearing was adjourned at 7:04 p.m.

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Okaloacoochee Slough State Forest (OSSF)  
10-Year Resource Management Plan

Management Plan Advisory Group (MPAG)  
Public Meeting/Public Hearing Summary  
Thursday, July 12, 2012 at 9:00 am  
at the Dallas B Townsend Agricultural Center  
1085 Pratt Boulevard,  
Labelle, FL 33935

**MPAG Members Present: Affiliation:**

|                   |                                                                |
|-------------------|----------------------------------------------------------------|
| Hank Graham       | Florida Forest Service, Caloosahatchee Forestry Center Manager |
| Bonnie McLaughlin | Florida Trail Association, Alligator Amblers Chapter           |
| Franklin Adams    | Florida Wildlife Federation                                    |
| Joe Bozzo         |                                                                |
| for Bert Trammell | South Florida Water Management District                        |
| Jean McCollom     | Florida Fish and Wildlife Conservation Commission              |
| Margaret England  | Hendry/Glades Audubon Society                                  |

**MPAG Members Absent: Affiliation:**

|                |                                                     |
|----------------|-----------------------------------------------------|
| Bruce Reichert | Collier County Soil and Water Conservation District |
| Sonny Mowbray  | Hendry County Soil and Water Conservation District  |
| Jim Coletta    | Collier County Commissioner                         |
| Willie Cockram | Alico, Inc                                          |
| Karson Turner  | Hendry County Commissioner                          |

**Members of the General Affiliation:**

**Public Present:**

|              |                                 |
|--------------|---------------------------------|
| Myra Johnson | Hendry County Planning & Zoning |
|--------------|---------------------------------|

**FFS Staff Present:**

**Affiliation:**

|                |                                                         |
|----------------|---------------------------------------------------------|
| Kevin Podkowka | Florida Forest Service, Forestry Resource Administrator |
| Chris Schmiede | Florida Forest Service, Forester                        |
| John Barrow    | Florida Forest Service, Land Planning Coordinator       |
| Cori Hermle    | Florida Forest Service, Land Planning Specialist        |

**9:00 a.m. Public Meeting:**

The Management Plan Advisory Group meeting was convened @ 9:02 am by Barrow. Barrow thanked everyone for attending and explained that the purpose of this meeting was to record any comments the MPAG members may have related to the Ten-Year Resource Management Plan for OSSF. All of the MPAG members introduced each other to the group. The MPAG focused

their attentions on the ten-year management plan. The plan was reviewed section-by-section and below is a summary of the comments by topic.

### Executive Summary

Podkowka said that the acreage numbers will be updated to include recent acquisitions.

### I. Introduction

Schmiege said there were 8 sections located in Collier County, not 12.

### I. C. Past Accomplishments

England asked that Audubon Society be amended to ‘local Audubon chapters’. McLaughlin asked if there were actually areas of the forest are still inaccessible to boundary marking. Podkowka replied that there are some areas that are unmarked, but they will be addressed during the next five years. An airboat was recently acquired that will facilitate boundary marking for those areas.

### I. D. Goal 1. Sustainable Forest Management

McCollom asked if protection of groundcover could be included in both objectives. Barrow replied that may be better suited for Goal 3. Habitat Restoration and Improvement. She asked if an objective could be included that states ‘thinning of planted trees to protect groundcover from damage due to shading and intense competition’. Barrow pointed out that may be better suited under Goal 3 versus Goal 1. McCollom stressed again that she believed an objective covering such an issue should be included in the management plan. Graham said that such an objective would be better suited to Goal 3 instead of including it under Goal 1.

### I. D. Goal 3: Habitat Restoration and Improvement

Adams asked what timeframe is covered by dormant and growing season burns, and Podkowka provided a definition. Graham pointed out that the majority of burns on OSSF were dormant season burns, because resources and burning conditions were optimal for that time period. Bozzo pointed out that it’s hard to conduct a growing season burn near smoke sensitive areas. McCollom said this year’s burning has been fantastic and expressed hopes that the slough could be burned this year.

Barrow asked if the Advisory Group wanted to add in an Objective similar to what McCollom suggested, i.e thinning of trees to protect groundcover. McCollom expanded on her concerns about planting density and thinning. Podkowka recommended that an additional performance measure language might be included under Objective 3 – ‘Monitor and treat stand densities that may be impacting native groundcover’.

McCollom gave her kudos to the draft management plan. Podkowka said a majority of the information in the management plan was contained in the FFS operational plans, and that those operational plans are available if anyone wishes to look over them.

#### I. D. Goal 4: Listed and Rare Species Habitat Maintenance, Enhancement, Restoration, or Population Restoration

Bozzo asked if the wildlife management plan would have a habitat component to it. Podkowka said that would be included.

#### I. D. Goal 6: Cultural and Historical Resources

Adams recommended that any subcontractors on the forest should have an FFS staff member with them to monitor for any archaeological disturbances or issues that may arise.

#### I. D. Goal 7: Hydrological Preservation and Restoration

McCollom asked if 'erosion' was needed in Objective 2. Graham and Podkowka pointed out that it was boilerplate language. McCollom requested that an objective to install water monitoring equipment to measure the potential impact of the Keri Road Sand Mine be included. Graham asked if rather than having the objective be specific to the Keri Road Sand Mine, that it might be better to have generalized language for water monitoring. Johnson said that installation of the Keri Road Sand Mine may be delayed. Barrow suggested possible general language for monitoring equipment. The Advisory Group agreed to add to the plan a new objective for water monitoring equipment installation that utilizes language from IV.B.2. Water Protection. McCollom requested that an objective be added to Goal 7 stating that FFS would coordinate with FWC on groundwater monitoring. Podkowka recommended instead adding a statement to the text under IV.B.2. Water Protection.

#### II. A. 3. Proximity to Other Public Resources

England asked if the panther property should be included.

#### II. B. 4. Revenue Producing Activities

Podkowka said that information on a planned grazing lease will be added to this subsection. McCollom requested that it be stated that only disturbed areas will be utilized for grazing areas or sabal palm harvesting. Podkowka said that the area was grazed by cattle in the past. McCollom said she would object to having a grazing lease on any land that isn't already disturbed. Graham said the proposed area is difficult to access with equipment and manage. England asked if there was a bid process for the cattle lease. Podkowka replied yes there was and provided some details on what is typically included in the bid. McCollom stressed again that she didn't believe natural areas should be opened up to cattle grazing.

Adams was concerned that too many palmetto drupes may be removed during a sale, adversely impacting food sources for deer or bears. Schmiede said that only 10% of areas are open to drupe harvesting. Bozzo asked if the areas are routinely rotated, and Schmiede said that they are. Adams expressed concern about the impact on the loss of a food source to dependent wildlife in exchange for only \$1000 in sales revenue. Graham stated that the palmetto drupe sales will continue and that FFS will monitor the sales more closely to ensure that the pickers are staying within the allocated area. Bozzo asked if apiary leases are required to address bears. Podkowka said that the apiary lease has stipulations for beekeepers to protect the hives from bears.

## II. E. 1. Responsibilities of Managing Agencies & 2. Law Enforcement

Hermle pointed out that recent statutory changes merged the Office of Agricultural Law Enforcement (OALE) into FWC's law enforcement, so the language referring to OALE in sections II.E.1 and II.E.2 will be updated.

## III. C. Ground Disturbing Activities

The Advisory Group recommended that a discussion of the road reroute be added to this section. Hermle recommended that the discussion on road rerouting instead be added to section V.A.5.Roads and that the maps from Schmiede's presentation be added to the management plan as an exhibit.

## IV. B. 2. Water Protection

McCollom requested that the following sentence be added to the third paragraph of the section: 'FFS will work with FWC on hydrologic evaluation on the effects of major canals north of CR 82 and development of restoration plan if one is necessary.'

## IV. C. 1. Table 5. Endangered or Threatened Species

Schmiede said he would update Table 5 to ensure that the common names were correct, that the status and rankings were up to date and additional plant species will be added to that table.

McCollom said that she was told that the Southeast American Kestrel was not located in the area, and so she has taken it off all of her lists. Also, the only locations for Cutthroat Grass that she is aware of are on the FWC property, and asked if she could see where they are located on OSSF.

## IV. C. 2. Game Species and Other Wildlife

McCollom requested that the sentence 'Wildlife opening and food plots will be established...; be deleted. She said that prescribed burning is more useful than food plots. Podkowka replied that food plots guidelines are given in Chapter 7 of the State Forest Handbook. Hermle pointed out the sentence was boilerplate language that FWC had requested at one time be included in FFS management plans.

### IV. C. 2. a. Birds

England asked if breeding birds were included in this subsection. Bozzo replied that breeding birds are probably included under 'resident' birds.

### IV. C. 3. a. Florida Panther

England asked that a reference to the American Prime Panther Corridor be included.

### IV. C. 3. C. Fish

McCollom suggested striking the reference to 'estuarine'.

### IV. C. 3. e. Bald Eagle

England said there are bald eagle nests located in Port LaBelle and Clewiston, and to add in Hendry County in addition to Collier County. Bozzo said that FWC has bald eagle nest locations available on the FWC website.

#### IV. F. Mineral Resources

Adams asked who owned the mineral rights on the 4,700 acres in Collier County. Podkowka said some of the property was acquired by the South Florida Water Management District, so the FFS does not own the property but manages it on behalf of the Water Management District. Adams said that Schofield may still own the mineral rights. It was requested that the statement on mineral rights for that portion be amended to note that it is privately owned.

#### IV. H. Research Projects/Specimen Collection

Schmiege mentioned that more research projects will be added to the list.

#### V. Table 6. Projects and Costs by Fiscal Year

Adams asked about the Birding Tower planned for 2012-2013. Podkowka responded that such improvements need to be identified in the management plan, so that when funding becomes available the FFS can quickly move forward on installation. Bozzo pointed out that the totals given for fiscal year 2012-2013 are incorrect and should be updated.

#### V. A. 2. Roads

Hermle reminded the group that discussion on the proposed road rerouting will be included in this subsection. The map Schmiege used from his presentation the night before will also be included as an exhibit.

#### V.A. 5. Camping

Bozzo asked what is meant by camping site versus camping area. Schmiege replied that this subsection will be edited for clarity. England asked where the horse trailer area is located on the forest and how many trailers can park there. Schmiege said where the area is located on the forest. Podkowka said that up to 30 trailers can park in that area. Graham said that this subsection will be edited for clarity.

#### V.B. 3. Shooting Range

McCollom asked if FFS was planning to manage the proposed shooting range, and that running a range requires a lot of time and money. Podkowka responded that FFS will staff and organize the area, and that outside sources of revenue would be pursued. Bozzo said that there was a big push by local residents to have a shooting range available in Collier County. McCollom suggested discussing the idea with Webb, since they have experience with running a shooting range. Podkowka replied that FFS wanted to include a proposal for a shooting range on the forest so that if an outside source of funding becomes available, the FFS can then utilize the opportunity quickly.

#### V.B. 4. Dog Training

McCollom asked if the dog training area will be managed by FFS. Podkowka responded FFS would manage the area.

#### V.B. 5. Firefighter Training Area

Bozzo asked why a firefighter training area was proposed. Podkowka replied the area will provide a dedicated area to train FFS staff on how to use firefighting equipment and protect structures, and to be compliant with ground disturbing guidelines. McCollom recommended

utilizing disturbed areas such current eucalyptus plantations to install structures or practice plow areas. Graham said that the proposed area could be moved to a more disturbed area of the forest. Hermle recommended adding language to the draft plan making it clear that the proposed areas for the training area are disturbed areas. Podkowka suggested moving the proposed area to the west, and Schmiede proposed the stairstep area of the forest as a possible alternate location.

#### V. C. Hunter Access

McCollom pointed out that the official rules for the Okaloacoochee Slough Wildlife Management Area (WMA) do not mandate any check station; only the dove hunts did. She suggested 'self-check and manned (or staffed)' check station. Small game is not a quota hunt. It is open to anyone with WMA permit and appropriate licenses.

#### VI. B. 2. Silvicultural Operations

McLaughlin asked about merchantable volume and if hardwoods or exotics would be harvested. Podkowka replied that exotics are treated regularly. It is mostly pines in the flatwoods areas that are impacted by past logging activity. The hardwoods were typically left in place.

#### VI. B. 3. Timber Inventory Control

McCollom asked if biomass or sabal palm harvesting was compatible with maintaining natural ecosystems. Podkowka replied that there isn't an economical supply of woody species for biomass harvest on the forest. Some biomass harvesters have been able to utilize Brazilian pepper. FFS could have the biomass harvesters remove the Brazilian pepper and then FFS would treat the stumps to prevent resprouting. FFS is looking into whatever opportunity arises where revenue can be made from biomass harvesting on what is already available on the forest. Graham pointed out that section IV.B.3. Timber Inventory Control was discussing issues that weren't pertinent to timber inventory. Podkowka suggested moving those issues to section VI.B.2. Silvicultural Operations.

McCollom requested that removal of trees for sale to the landscape industry be limited to disturbed areas only. Barrow said that FFS may not want to limit themselves to disturbed areas only, and that FFS will do their best to minimize impacts to natural areas from harvesting. Podkowka said that FFS will try to pursue such sales with sound management techniques. He suggested adding the phrase 'priority will be placed on disturbed areas'.

McCollom commended FFS for the seed orchard on OSSF. Podkowka said they were looking at installing seed orchards on Picayune Strand State Forest as well. Adams and McCollom recommended adding in language to the discussion in the plan about fruit, mast or seed harvesting. They recommended 'Before considering any sales a review of the effects of the drupe sale on wildlife will be considered'.

#### VI.C. Non-Native Invasive Species Control

McCollom said she was happy to see hog control referenced in the management plan. The Lygodium Strike Team has been disbanded. There is a typo in the spelling of her name in section VI.C.1., the section paragraph.

#### VI. C. 2. Table 8. Confirmed Exotic Fauna

Hermle said that the second reference to Mexican Bromeliad Weevil in table 8 will be deleted. Bozzo pointed out a typo in the spelling of Black Acara. McLaughlin asked what is being done to control Burmese pythons. Podkowka said all of the OSSF staff had been trained on how to properly remove pythons. McCollom said that hunting permits are available to hunt pythons at night on OSSF.

#### VI. D. Insects, Disease and Forest Health

Adams said he was happy to see this section included in the plan and for designating OSSF as an 'environmentally sensitive and biologically highly productive' area. He asked that any future consideration of the use of pesticides or mosquito control work would have to be coordinated by FFS, the Department of Agriculture and Consumer Services (DACS) and the counties before any such activity was considered or permitted.

#### VII. Proposed Management Activities for Natural Communities

Graham asked if the second paragraph adequately addressed McCollom's concerns about groundcover and thinning of pines.

#### VII. A. Slough Marsh

Adams asked if chemical control of willow heads was necessary and if instead prescribed fire could be used at the appropriate time of year to control willow heads. Podkowka pointed out that a major wildfire had gone through the area several years previously and did little to impede willow head growth. McCollom said that chemical control can be used in conjunction with prescribed fire to adequately control willow heads.

The reference to County Road 833 is incorrect; it should be County Road 832.

#### VII. C. Basin Marsh

McCollom liked some of the statements on pg 51

The Advisory Group discussed the priority order of restoration efforts listed under the subsection on Management Actions. Podkowka said the priority order will be shuffled to now read as 'exotic vegetation eradication and control, prescribed burning, mechanical and chemical control and hydrologic restoration'. He said the priority order would be updated for Depression Marsh, Wet Prairie, Mesic Hammock, Wet Flatwoods, and Dome Swamp.

Podkowka said the sentence 'herbicides used in this community type are limited to exotic treatment, and there are no cattle leases' is no longer correct and will be deleted from the Management Actions subsection of Basin Marsh and Depression Marsh.

#### VII. E. Wet Prairie

There is a typo on levees.

#### VII. G. Wet Flatwoods

McCollom asked if 10-20% coverage is the long term goal, then shouldn't FFS plant fewer than 600 trees per acre in order to maintain what groundcover is still there. She said it would be

ecologically detrimental to the groundcover to plant at that density, and seems a waste to plant so many trees to then turn around and have to thin out fairly soon after planting.

The Advisory Group recommended that the stem density be dropped from 600 trees per acre down to 300 trees per acre.

#### VII. H. Dome Swamp

The reference to swamp tupelo in the desired future condition should be corrected to pop ash. There is no swamp tupelo on the forest and it is very seldom in pure stands. McCollom suggested that the first sentence under the Current Condition subsection should also include in addition to Old World climbing fern a reference to West Indian marsh grass, Wright's nutsedge, as well as possible torpedograss.

#### Exhibit A – FY 2001-2011 Management Accomplishment Summary for Okaloacoochee Slough State Forest

Hermle said that fiscal data for 2011-2012 will be added to this table.

#### Exhibit C – Other Publically Owned Lands

Bozzo pointed out that the Corkscrew Swamp Sanctuary is not publically owned lands, and that the Crew Area could be indicated on the map. Hermle pointed out that the lands owned by Department of Environmental Protection (DEP), Office of Greenways and Trails are now included under DEP's Division of Recreation and Parks.

#### Exhibit E – Optimal Management Boundary

McCollom said the Optimal Management Boundary includes part of Dinner Island, which is already under protection.

#### Exhibit I – Management Procedures for Archaeological and Historical Sites and Properties on State-Owned or Controlled Lands

England asked whether and protection measures have been implemented to protect the middens on the forest. Podkowka replied that the middens are not identified as recommended by the Division of Historical Resources.

#### Exhibit J – Soil Types & Map

Hermle recommended that the water improvement map that Schmiede utilized in his presentation from the public hearing be added after Exhibit J.

#### Exhibit K – Florida Natural Areas Inventory Managed Area Element Summary

McCollom wondered if *Linum carteri* var *smallii* is an actual occurrence or a "likely" one.

#### Exhibit L – Wildlife Species Found on OSSF

McCollom pointed that the title of this exhibit says wildlife species, but plant species are included as well. She also pointed out a typo of her name on page L-20. There are no species on this table that are indicated by the footnote stating 'Monroe Co only', so she recommended this line be deleted. *Thamnophis sauritus* is listed twice, once with a subspecies. There is only one ribbon snake in the area. Adams said that the common name given for *Elaphe obsoleta*

*rossalleni* is incorrect; it is not a ‘corn snake’. The Corn Snake is correctly listed as *Elaphe guttata guttata*. *Acris gyllus dorsalis* is listed twice; the reference to Florida (Southern) Cricket Frog should be deleted since it is only located in the panhandle and the subspecies is *gyllus*. McCollom says that *Fejervarya limnocharis*, the cricket frog, is an exotic and to her knowledge is not located in the area. Bozzo pointed out that the common name for *Cichlasoma bimaculatum* has a typo. McCollom said that Mayan Cichlid has a typo (‘Myan Cichlid). She pointed out that Greater Siren, *Siren lacertian*, Salamandar can be added to the list. She says that Red-eye Bass is only found north of central Alabama and Georgia, and asked what source does FFS have that Red-eyed bass is located on OSSF. Mosquitofish (*Gambusia affinis*) can be added to the fish list. McCollom said that the Florida Grasshopper Sparrow wasn’t found on Dinner Island or Okaloacoochee Slough Wildlife Management Area surveys during 2012 spring surveys, and suggested deleting this reference in Exhibit L. Florida Grasshopper Sparrows aren’t migratory; however the common grasshopper sparrow does migrate. Pine Warbler (*Dendroica pinus*) is included twice in the list. McCollom suggested removing the Southeastern American Kestral since it isn’t in the area. The Eastern Pipistrelle (*Pipistrellus subflavus*) is a bat and should be moved from the bird subsection to the mammals subsection. Adams pointed out that the Eastern Pipistrelle is no longer in the genus *Pipistrellus*; the accepted name is *Perimyotis subflavus*. There is a typo in the common name spelling of *Protonotaria citrea*. The Brown Thrasher (*Toxostoma rufum*) has been listed twice. The Pond Crayfish (*Procambarus fallax*) should be moved to the fish subsection.

#### Exhibit M – Recreational Features Map

Schmiege said that the horse trail needs to be added to the map and to the management plan.

#### Exhibit N – Dog Training Area

Bozzo asked if the area will be fenced. Podkowka said yes. McCollom pointed out that the proposed dog training area is also the eucalyptus planting area in Exhibit P.

#### Exhibit O – Firefighter Training Area

Podkowka said the proposed area will be moved and the map updated.

#### Exhibit P – Reforestation of Eucalyptus on OSSF

Hermle said the one reference to ‘Division’ will be changes to ‘Service’. McCollom said that FWC upland invasives is now supporting torpedograss work. She reviewed the literature cited in the proposal, but that none of the literature listed 100% reduction. She said that chemical control would still be needed. The area in question is Wet Prairie, and the existing plantations are bedded, so new plantings may need to be bedded as well. The cost estimates may not be factoring in costs needed for mechanical work. She suggested that maybe planting cypress or something else native would be more economical. McCollum stated that this proposal may get FFS farther away from restoration versus any closer. Podkowka said that the funding for restoration hasn’t been available. McCollom offered suggestions on how to effectively restore torpedograss areas utilizing herbicide.

England asked how cost effective eucalyptus harvesting is. Podkowka said the first harvest generated \$8,000-9,000 in revenue and the second harvest generated \$4,300. England asked what species of eucalyptus is currently there. Schmiege responded that *E. robusta* and *E.*

*camaldulensis* are present, and that the invasive version of eucalyptus is not present on the forest. England asked if any bird surveys have been done in that area. Podkowka said the two areas in question are very small. Bozzo said the South Florida Water Management District has similar concerns as McCollom on the proposal. He said that chemical treatment of the torpedograss may be the way to go, though it may end up being rather pricey. England agreed with McCollom that this proposal should be removed from the management plan.

Hermle said that she would get the minutes out to everyone within two weeks, and that it would be a negative response for any changes. The Advisory Group members complimented Podkowka on the quality of the draft management plan. Barrow thanked everyone for their time, and the meeting was adjourned at 12:30 p.m.

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EXHIBIT I

Management Procedures for Archaeological and Historical Sites and Properties on State-Owned or Controlled Lands

**Management Procedures for Archaeological and Historical Sites and Properties on
State-Owned or Controlled Properties**
(revised February 2007)

These procedures apply to state agencies, local governments, and non-profits that manage state-owned properties.

A. General Discussion

Historic resources are both archaeological sites and historic structures. Per Chapter 267, Florida Statutes, *‘Historic property’ or ‘historic resource’ means any prehistoric district, site, building, object, or other real or personal property of historical, architectural, or archaeological value, and folklife resources. These properties or resources may include, but are not limited to, monuments, memorials, Indian habitations, ceremonial sites, abandoned settlements, sunken or abandoned ships, engineering works, treasure trove, artifacts, or other objects with intrinsic historical or archaeological value, or any part thereof, relating to the history, government, and culture of the state.’*

B. Agency Responsibilities

Per State Policy relative to historic properties, state agencies of the executive branch must allow the Division of Historical Resources (Division) the opportunity to comment on any undertakings, whether these undertakings directly involve the state agency, i.e., land management responsibilities, or the state agency has indirect jurisdiction, i.e. permitting authority, grants, etc. No state funds should be expended on the undertaking until the Division has the opportunity to review and comment on the project, permit, grant, etc.

State agencies shall preserve the historic resources which are owned or controlled by the agency.

Regarding proposed demolition or substantial alterations of historic properties, consultation with the Division must occur, and alternatives to demolition must be considered.

State agencies must consult with Division to establish a program to location, inventory and evaluate all historic properties under ownership or controlled by the agency.

C. Statutory Authority

Statutory Authority and more in depth information can be found in the following:

Chapter 253, F.S. – State Lands

Chapter 267, F.S. – Historical Resources

Chapter 872, F.S. – Offenses Concerning Dead Bodies and Graves

Other helpful citations and references:

Chapter 1A-32, F.A.C. – Archaeological Research

Chapter 1A-44, F.A.C. – Procedures for Reporting and Determining Jurisdiction Over Unmarked Human Burials

Chapter 1A-46, F.A.C. – Archaeological and Historical Report Standards and Guidelines

The Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings

D. Management Implementation

Even though the Division sits on the Acquisition and Restoration Council and approves land management plans, these plans are conceptual. Specific information regarding individual projects must be submitted to the Division for review and recommendations.

Managers of state lands must coordinate any land clearing or ground disturbing activities with the Division to allow for review and comment on the proposed project. Recommendations may include, but are not limited to: approval of the project as submitted, pre-testing of the project site by a certified archaeological monitor, cultural resource assessment survey by a qualified professional archaeologist, modifications to the proposed project to avoid or mitigate potential adverse effects.

Projects such as additions, exterior alteration, or related new construction regarding historic structures must also be submitted to the Division of Historical Resources for review and comment by the Division's architects. Projects involving structures fifty years of age or older, must be submitted to this agency for a significance determination. In rare cases, structures under fifty years of age may be deemed historically significant. These must be evaluated on a case by case basis.

Adverse impacts to significant sites, either archaeological sites or historic buildings, must be avoided. Furthermore, managers of state property should make preparations for locating and evaluating historic resources, both archaeological sites and historic structures.

E. Minimum Review Documentation Requirements

In order to have a proposed project reviewed by the Division, the following information, at a minimum, must be submitted for comments and recommendations.

Project Description – A detailed description of the proposed project including all related activities. For land clearing or ground disturbing activities, the depth and extent of the disturbance, use of heavy equipment, location of lay down yard, etc. For historic structures, specific details regarding rehabilitation, demolition, etc.

Project Location – The exact location of the project indicated on a USGS Quadrangle map, is preferable. A management base map may be acceptable. Aerial photos indicating the exact project area as supplemental information are helpful.

Photographs – Photographs of the project area are always useful. Photographs of structures are required.

Description of Project Area – Note the acreage of the project, describe the present condition of project area, and any past land uses or disturbances.

Description of Structures – Describe the condition and setting of each building within project area if approximately fifty years of age or older.

Recorded Archaeological Sites or Historic Structures – Provide Florida Master Site File numbers for all recorded historic resources within or adjacent to the project area. This information should be in the current management plan; however, it can be obtained by contacting the Florida Master Site File at (850) 245-6440 or Suncom 205-6440.

* * *

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

Susan M. Harp
Historic Preservation Planner
Division of Historical Resources
Bureau of Historic Preservation
Compliance and Review Section
R. A. Gray Building
500 South Bronough Street
Tallahassee, FL 32399-0250

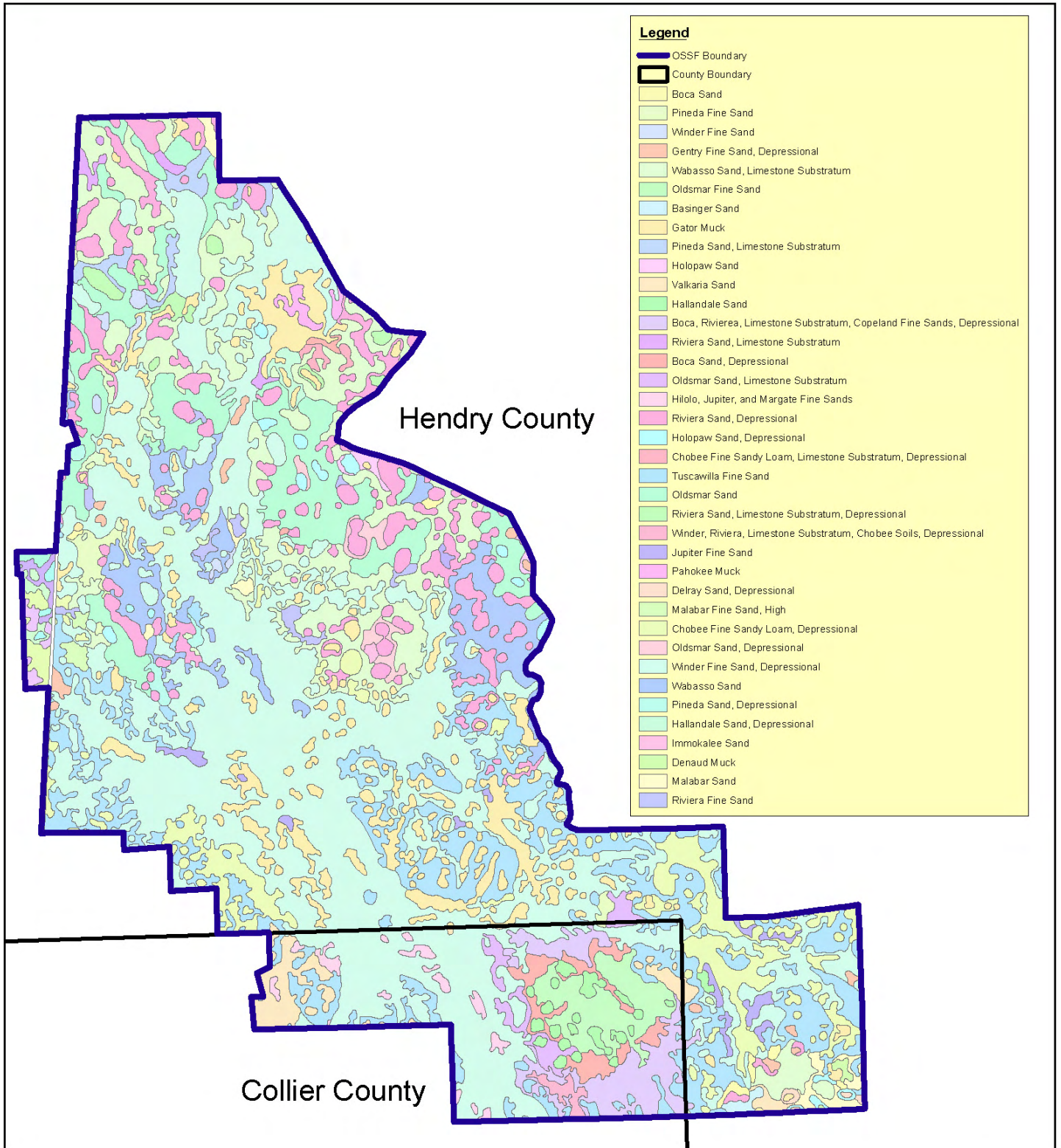
Phone: (850) 245-6333
Suncom: 205-6333
Fax: (850) 245-6438

EXHIBIT J

Soil Types & Map



Soils Map Hendry and Collier Counties Okaloacoochee Slough State Forest



0 0.5 1 2 Miles

Okaloacoochee Slough State Forest Soils Descriptions

Basinger sand – Poorly drained soils found in sloughs and poorly defined drainage ways. Under natural conditions the water table is within 10 inches of the surface for 2 to 6 months of the year. Unless a long dry period persists, the water table is within 30 inches of the surface for the remainder of the year. Natural vegetation includes: grasses, rushes, and sedges with blue maiden cane being the most common.

Chobee fine sandy loam, depressional – Very poorly drained soil in marshes, swamps, and depressions. Chobee soil has a high water table, within 10 inches of the surface for 3 to 6 months most years and is ponded for 6 months most years. Natural vegetation includes: maiden cane, sawgrass, pickerelweed, and other hydrophytic plants. In some areas cypress, ash, and red maple may also occur.

Chobee fine sandy loam, limestone substratum, depressional – Poorly drained soils in swamps, marshes, and depressions. Under natural conditions this soil is ponded up to 6 months a year, with the water table rarely more than 20 inches from the surface. Native vegetation includes cypress, sawgrass, maiden cane, and swamp hardwoods.

Delray sand, depressional – Very poorly drained soil found in swamps, marshes, and depressions. Under natural conditions ponding occurs for 2 to 6 months, and the water table is within 10 inches of the surface for 6 to 9 months of the year. Natural vegetation includes: red maple, swamp bay, laurel oak, and cabbage palm. Ground cover includes maiden cane and blue maiden cane.

Denaud muck – Very poorly drained soils primarily in depressions along the Everglades. Under natural conditions this soil is ponded for 6 to 9 months of the year with the water table rarely exceeding 20 inches below the surface. Natural vegetation consists of blue maiden cane, sawgrass, fire flags, pickerelweed, willow, and bald cypress.

Gator muck – Very poorly drained organic soils in marshes and swamps. Under normal conditions this soil is saturated year round and ponded up to a foot for nine months of the year. Natural vegetation includes: cypress, maiden cane, sand cordgrass, pickerelweed, and fire flags.

Gentry fine sand, depressional – Very poorly drained soil found in marshes, swamps, and depressions. This soil is ponded for more than 6 months of the year. Natural vegetation includes maiden cane, fire flags, pickerelweed, cypress, and swamp hardwoods.

Jupiter fine sand – Poorly drained soil in hammocks and low flats that border sloughs and marshes. Under natural conditions this soil has a high water table within 10 inches of the surface for 2 to 4 months of the year and at 10 to 40 inches during dry periods. Natural vegetation includes cabbage palm and live oak.

Malabar sand – Poorly drained soils found in sloughs and flatwoods. Under natural conditions the high water table is within 10 inches of the surface for 2 to 6 months of the year. Natural vegetation includes grasses, scattered slash pine, clumps of saw palmetto, and blue maiden cane.

Malabar fine sand, high – Poorly drained soil on broad flatwoods. The surface is generally slightly convex creating a 0 – 2% slope. Under natural conditions the soil has a high water table within 10 inches of the surface for 1 to 3 months and at a depth of 40 inches or more during dry periods. Natural vegetation consists of slash pine, saw palmetto, cabbage palm, live oak, and pineland threeawn.

Oldsmar sand – Nearly level, poorly drained soil on broad flatwoods. Under natural conditions this soil has a high water table, within 10 inches of the surface for 3 months most years. During dry periods the water table is more than 40 inches below the surface. Natural overstory vegetation is comprised of South Florida slash pine, and cabbage palm. Understory plants include saw palmetto, waxmyrtle, gallberry, fetterbush, lyonia, runner oak, dwarf huckleberry, pineland threeawn, blue maiden cane, and several species of bluestem.

Pineda fine sand – Poorly drained soil found in sloughs and in low flats in flatwoods areas. Under natural conditions the water table is within 10 inches of the surface for 6 months and between 10 and 40 inches for the remainder of the year. Natural vegetation includes slash pine, saw palmetto, cabbage palm, waxmyrtle, blue maiden cane, broomsedge bluestem, pineland threeawn, and many grasses.

Pineda sand depressional – Poorly drained soil found in flatwoods depressions. Under natural conditions this soil is ponded for 3 to 6 months in most years. The high water table is rarely more than 30 inches below the surface. Natural vegetation includes: St. Johns wort, maiden cane, and sand cordgrass. In some areas scattered to dense stands of cypress may occur.

Riviera sand, depressional – Poorly drained soil in flatwoods depressions. This soil has up to 24 inches of water ponded for 3 to 6 months annually, with the water table rarely more than 30 inches below the surface. Natural vegetation includes water-tolerant grasses, rushes, and sedges. Blue maiden cane, waxmyrtle, and queens delight may also occur.

Tuscawilla fine sand – Nearly level, poorly drained soil on low-lying ridges and hammocks, which are generally between sloughs and flatwoods depressions. Under natural conditions this soil has a high water table within 12 inches of the surface for 6 months of the year. Native vegetation consists of slash pine, laurel oak, live oak, cabbage palm, waxmyrtle, bluestem, and panicums.

Wabasso sand – Poorly drained soil of the flatwoods. Under natural conditions the high water table is within 10 inches of the surface for less than 2 months of the year, and at a depth of 10 to 40 inches for 6 months or more. Natural vegetation is an open forest of slash pine with a saw palmetto understory. Cabbage palm and live oak may also be scattered throughout the area. Native groundcover includes pineland threeawn, creeping bluestem, chalky bluestem, lopsided Indian grass, and panicums.

Wabasso sand, limestone substratum – Poorly drained soil of the flatwoods. Under natural conditions this soil has a high water table, within 10 inches of the surface for 2 to 4 months in most years. In dry periods the water table is at a depth of more than 40 inches. Natural vegetation that occurs is scattered cabbage palm, live oak, and open stands of slash pine. Native grasses occurring are pineland threeawn, creeping bluestem, chalky bluestem, lopsided Indian grass, and panicums.

Winder fine sand – Poorly drained soil in broad, low sloughs of the flatwoods. Under natural conditions the water table is within 10 inches of the surface for 6 months of the year. Native vegetation includes blue maiden cane, pineland threeawn, broomsedge, bluestem, and sand cordgrass.

Winder fine sand, depressional – Nearly level, poorly drained soil in marshes and flatwoods depressions. Under normal conditions the soil is ponded for 6 to 9 months per year. Natural vegetation includes wax myrtle, maiden cane, queens delight, and sand cordgrass.

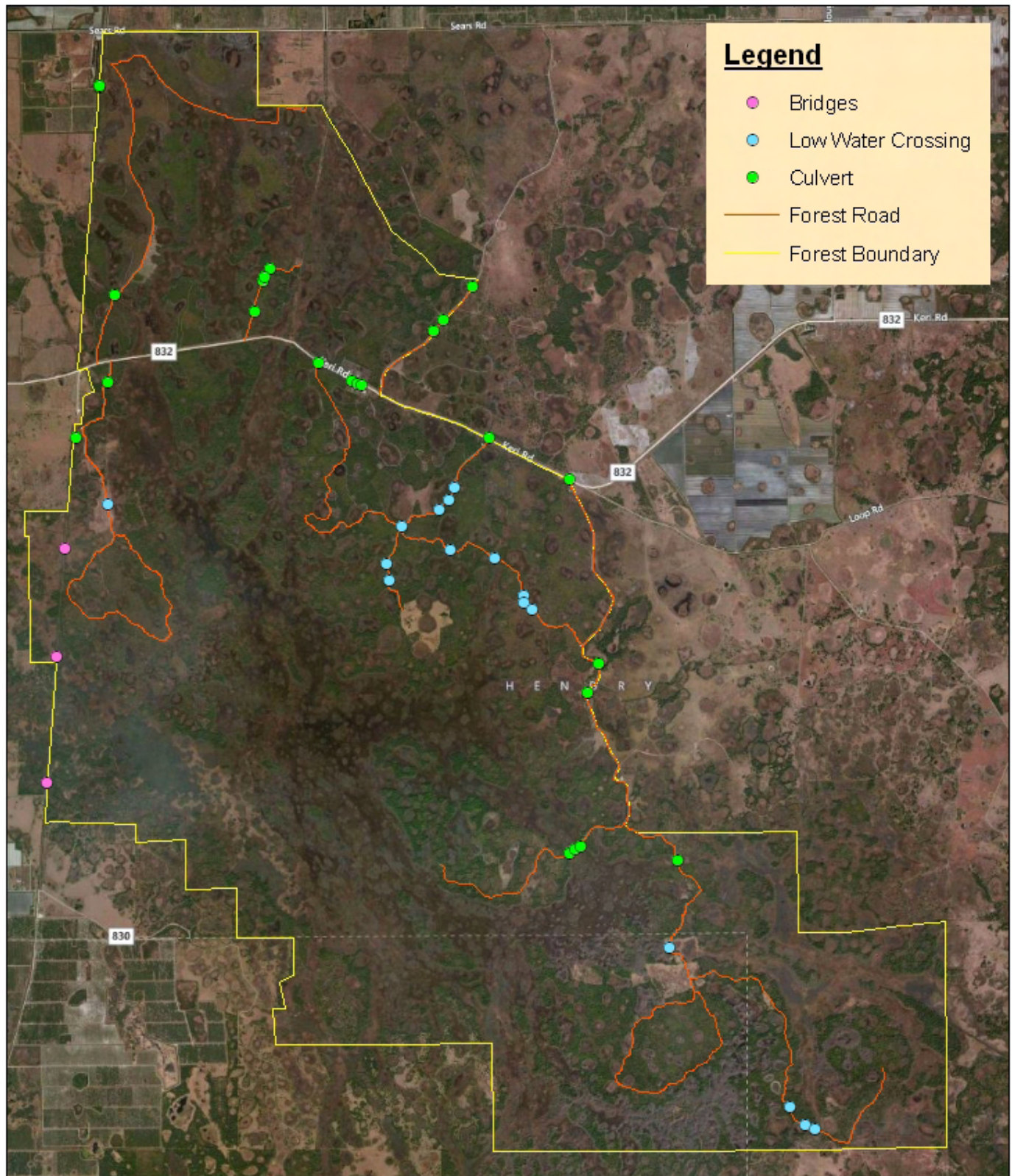
EXHIBIT K

Culverts, Bridges, and Low Water Crossings



Exhibit K

Okaloacoochee Slough State Forest Culverts, Bridges, and Low Water Crossings



0 1 2 4 Miles