

EXHIBIT A

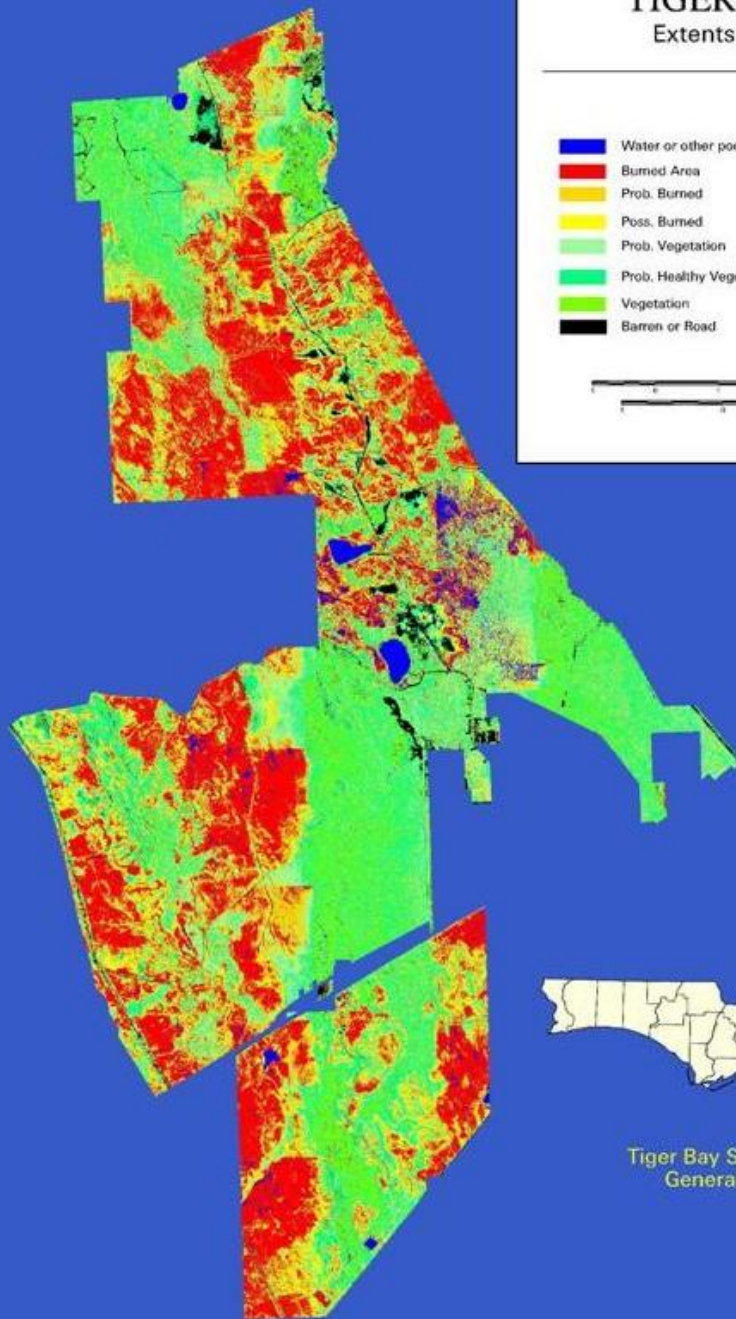
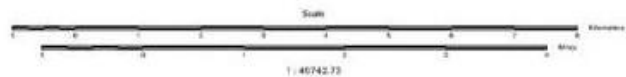
1998 WILDFIRES ON TIGER BAY STATE FOREST

TIGER BAY STATE FOREST

Extents of the 1998 Summer Wildfires
VOLUSIA COUNTY, FLORIDA

Yellow, Orange, Red, Purple, Green, Blue, Black
Units: meters

- Water or other poor IR reflectivity
- Burned Area
- Prob. Burned
- Poss. Burned
- Prob. Vegetation
- Prob. Healthy Vegetation
- Vegetation
- Barren or Road



Tiger Bay State Forest
General Location

Imagery derived from scanned Infrared aerial photography flown
in August of 1998. The imagery was rectified in ERDAS Imagine 8.2,
mosaicd, and classified.
map date: 01 Mar 99
/doff/leke_george fires

EXHIBIT B

TIGER BAY STATE FOREST LOCATION AND BOUNDARY MAP

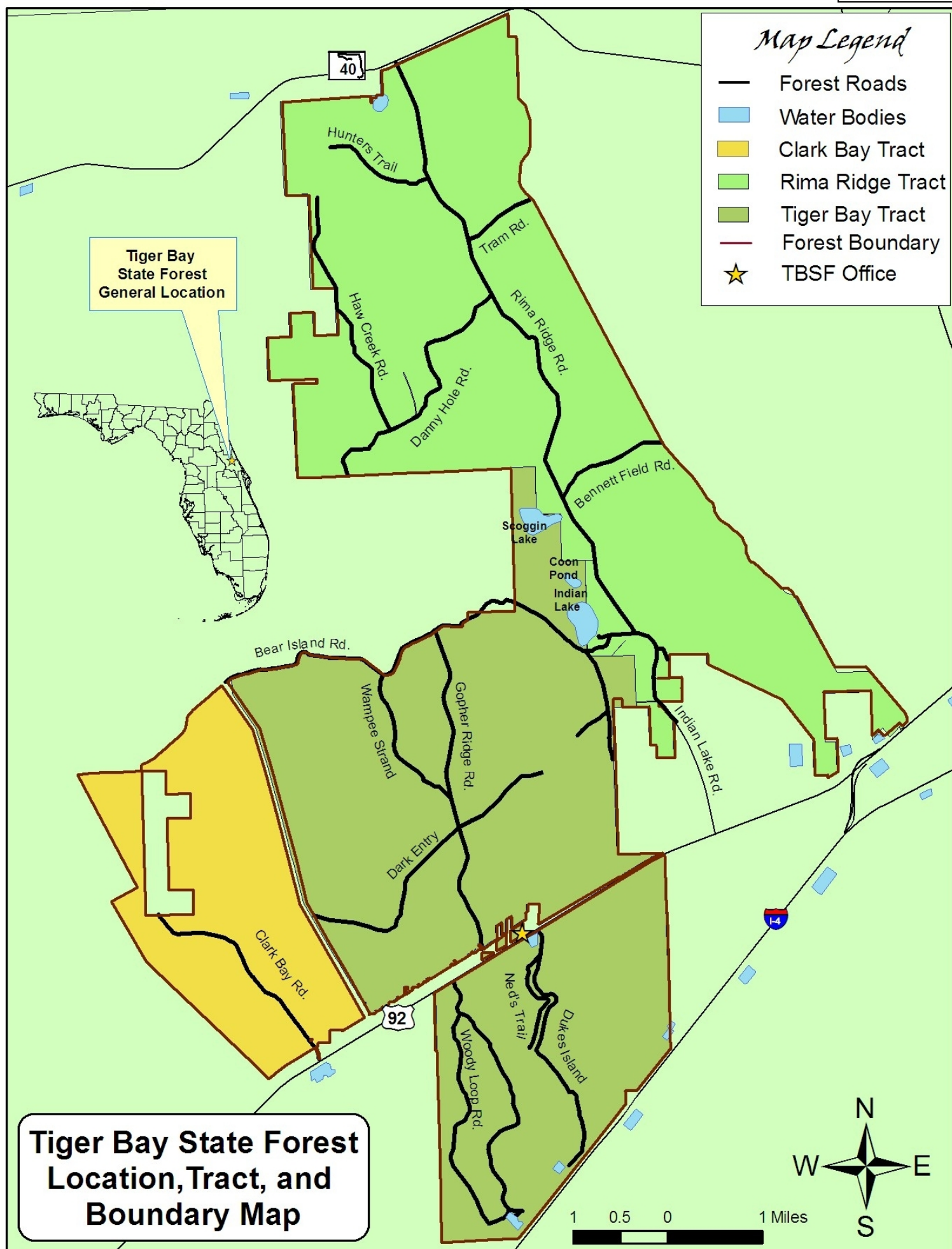


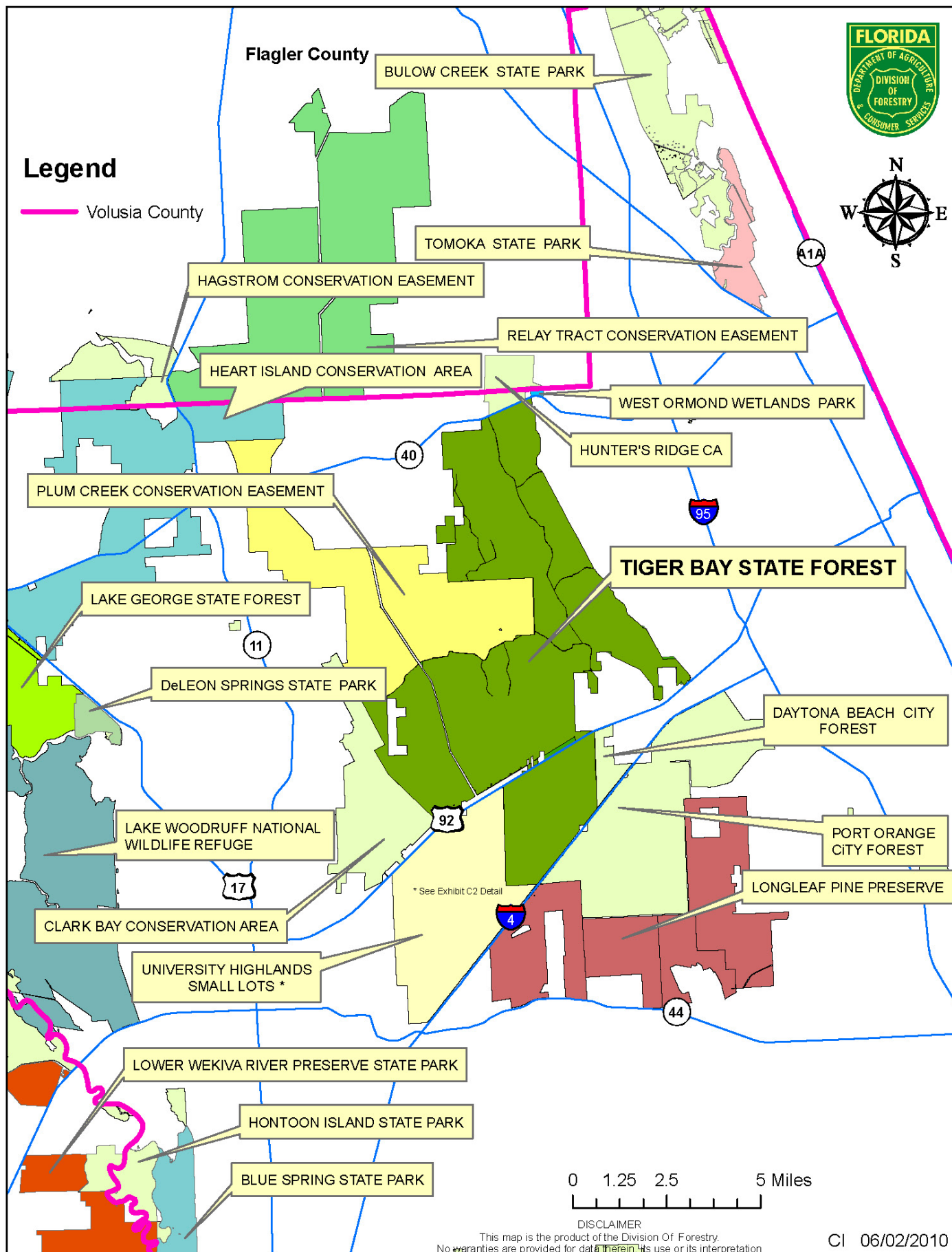
EXHIBIT C

PROXIMITY TO OTHER PUBLIC LANDS MAP

Tiger Bay State Forest

Exhibit C1

Other Public Lands and Conservation Easements





University Highlands Small Lot Acquisition for TBSF

Exhibit C2

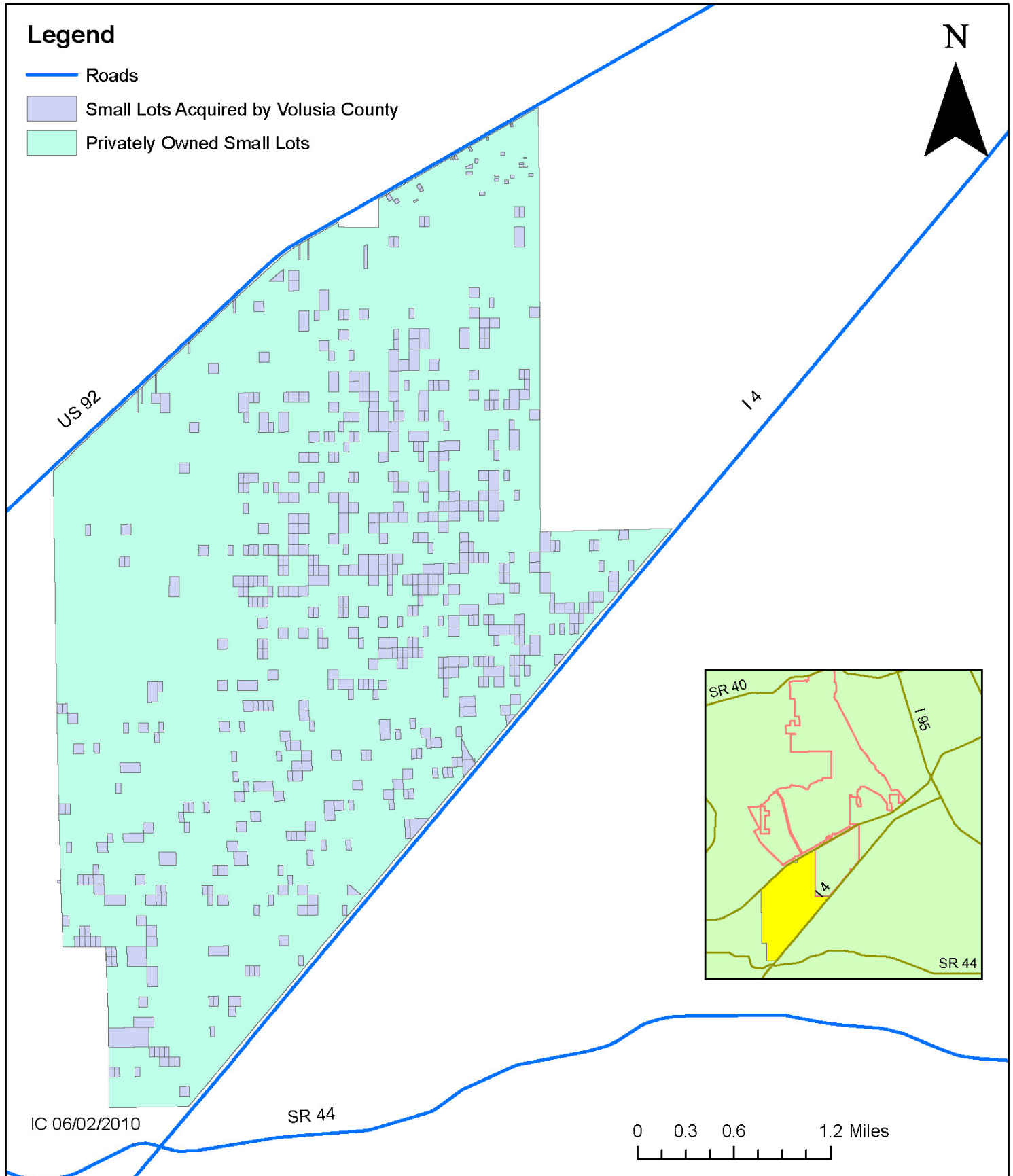


EXHIBIT D

OPTIMAL BOUNDARY MAP



Tiger Bay State Forest Optimum Boundary

Exhibit D

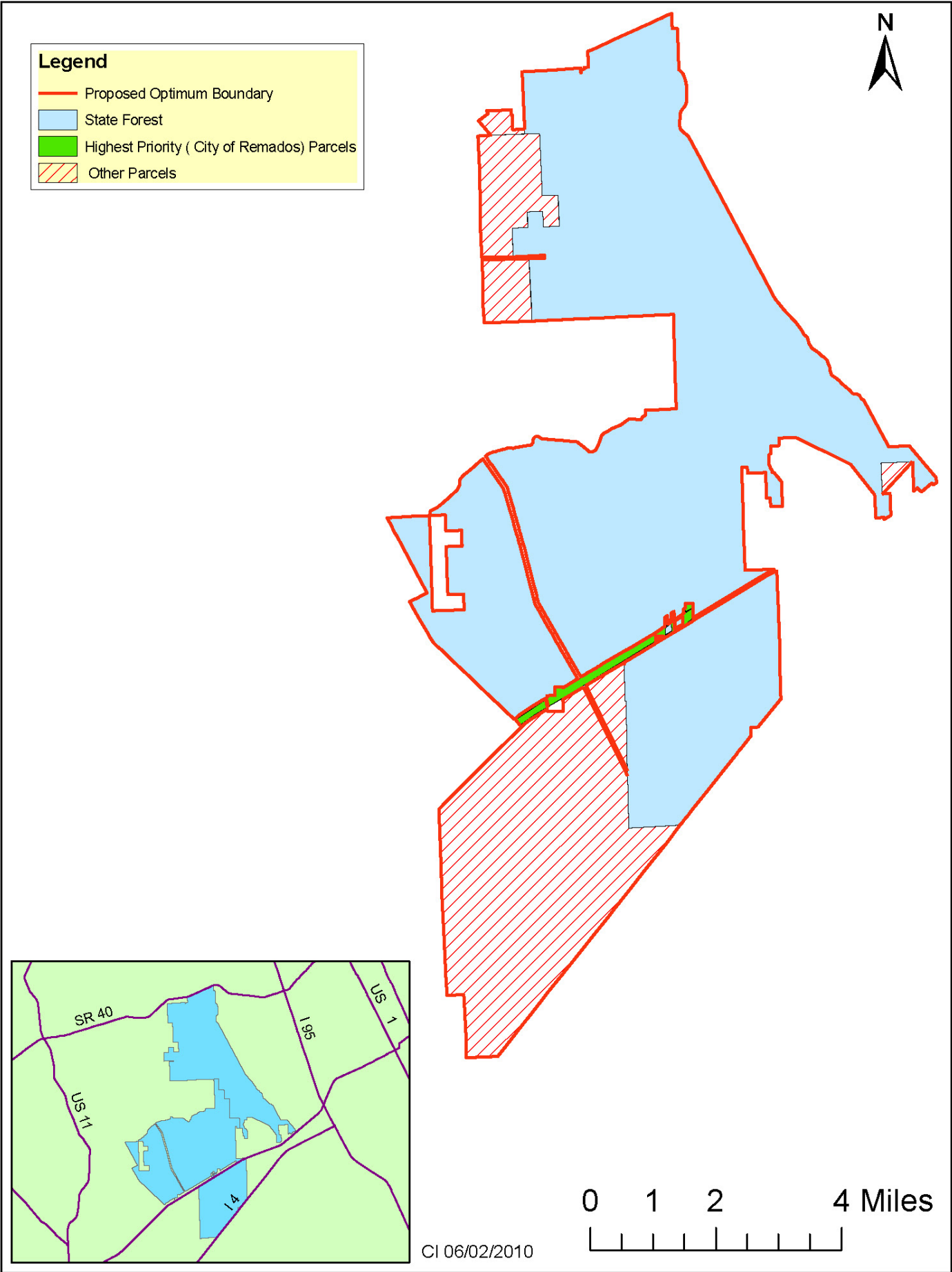


EXHIBIT E

MANAGEMENT PLAN ADVISORY GROUP MEETING SUMMARY

**Tiger Bay State Forest
MPAG PRE-HEARING MEETING
May 17, 2010, 6:00 p.m.
Volusia County Agricultural Center Auditorium
DeLand, Florida 32724**

MPAG Members Present

Joie Alexander, Volusia County Council
Clay Benedict, Consolidated Tomoka Land Company
Alan Burton, Volusia Soil and Water Conservation District
Rick Eversole, Tiger Bay and Lake George Liaison Panel (hunters)
Jan Foster, Tiger Bay and Lake George Liaison Panel (equestrians)
Mike Kuypers, DOF District 10 District Manager
Crystal Morris, St. Johns River Water Management District (SJRWMD)
Brett Owsley, Florida Fish and Wildlife Conservation (FWC)
Ed Sherman, West Volusia Audubon
Randall Sleister, Volusia County Department of Land Acquisition & Management

DOF Staff Present:

Ray Durham, DOF District 10 Forest Area Supervisor
Steve Graham, Forestry Supervisor, Tiger Bay State Forest
Vada Jackson, Senior Clerk, Tiger Bay State Forest
Chris Kincaid, DOF District 10 Recreation Coordinator
Cathy Lowenstein, DOF District 10 Forestry Resource Administrator
Bill Korn, Environmental Manager, DOF Director's Office

Others Present:

John Gamble, Volusia County Public Works and Private Citizen
Greg Gimbert, Private Citizen
Jerri Hockman, Private Citizen
Michael Juncal, Tiger Bay State Forest Adjacent Land Owner
Rob Merrill, Private Citizen
Dinah Pulver, Daytona Beach News Journal

Bill Korn convened the pre-public hearing meeting of the Tiger Bay State Forest MPAG at 6:00 p.m. and provided background on the Ten-Year Resource Management Plan history and process. He talked about the role of the Management Plan Advisory Group (MPAG), as defined in Florida Statutes and whose members have been appointed by the DOF Director. He explained the Florida Sunshine Law – which in brief instructs members of a governmental body or group in a decision-making capacity not to discuss agenda items outside the publicly noticed meeting. Mr. Korn discussed the goals of the upcoming public hearing. MPAG members then introduced themselves. The group elected Mike Kuypers as Chairperson for the MPAG proceedings. Bill discussed the meeting process and appropriate activities that may occur during the public hearing to follow. He explained that the hearing is the venue for the public to voice their questions and their opinions or comments and for the MPAG members to listen. The meeting Tuesday morning will be the place where MPAG members can speak and share their opinions/feedback. He advised MPAG members that if they cannot attend the meeting Tuesday morning, they should provide their comments in writing tonight, if possible, but definitely prior to Tuesday morning's meeting so that all the MPAG members could benefit from their comments. The meeting adjourned about 6:20 p.m.

**Tiger Bay State Forest
MPAG Public Hearing
May 17th, 2010, 6:30 P.M.
Volusia County Agricultural Center Auditorium
DeLand, Florida 32724**

MPAG Chairperson, Mike Kuypers, convened the public hearing at 6:32 p.m. He outlined the agenda for the hearing and provided overview of the procedure for how the management plan will proceed through the evaluation process. MPAG members introduced themselves to the members of the public present. Mr. Kuypers turned the meeting over to Bill Korn to facilitate and continue explaining the process and hearing procedures. Mr. Korn introduced Tiger Bay State Forest Supervisor, Steve Graham, who presented highlights of the management plan via a Power Point presentation. Mr. Graham's presentation noted historical highlights and the eight goals Tiger Bay State Forest wants to achieve. At the conclusion of the presentation, Mr. Kuypers asked TBSF staff to assemble in the front of the room so they could answer questions from the public on the presentation and/or the proposed 10-year goals for the state forest.

Question 1: Mr. John Gamble inquired what the historic natural condition of Tiger Bay State Forest was. The claim from old timers was that you could see from the old Brick Road to SR 40.

Answer: Ray Durham answered, stating the original condition featured lots of grassland, longleaf, mesic flatwoods.

Question#2: Mr. Gamble stated Volusia County built the weir on Thayer Canal. The County does not know what the management goals are; what's the plan for the canal?

Answer: Cathy Lowenstein and Mike Kuypers noted that the original plan was for the County to operate the weir. The weir riser was to retain water at the one foot level and St Johns Water Management District and DOF would monitor effects. If the desire was to raise that level, we will all coordinate on that decision. The MOU specified responsibilities. The County was to construct and operate it. It is not known whether there is a written plan to change levels over time, but DOF would wait for a recommendation from Volusia County or SJRWMD as to whether there would be a change to management of the water level.

Question - Joie Alexander: Do management plans change from forest to forest?

Answer: Cathy Lowenstein stated plans have a basic format, but differ from forest to forest; variations are in the specific details of the forest.

Question: Are there specifics that are unique to Tiger Bay State Forest (TBSF)? Is it unusual that TBSF is half swamp?

Answer: Many of the forests have some of the same characteristics as TBSF, but land planning and management becomes complicated because there are many differences in characteristics. Changes in plans have to do with anthropocentric influences, and depend upon how much and

what has been done in any particular forest. The management goal is restoration of native communities and to allow as much public access as can be accommodated. Bill Korn explained that the various land management entities get different kinds of lands. He noted that DOF usually gets silvicultural lands, State parks get many scenic lands, FWC gets ranch land, etc.

Question: Has TBSF been approached about allowing access to off-highway vehicles (OHVs)? What are the barriers to these now?

Answered by Cathy Lowenstein— During the management plan revision, a letter was received requesting consideration.

Question: Has consideration been given to use fire roads, two-trails for OHVs?

Answer: Ms. Lowenstein noted the state forest has 52 miles of public roads; all service roads (management use only) have not been mapped. Staff has not identified locations appropriate for any kind of additional usage.

Question: Randy Sleister asked whether the report from the TBSF Land Management Review, done 6 months ago, (facilitated by DEP Division of State Lands) is in the current management plan draft?

Answer: Bill Korn noted the Land Management Review was done recently (2009). DOF responded to the report, but it has not made it yet through the full process for publishing on the DEP website. This review suggested DOF needs to place more emphasis on doing prescribed burning. Attention needs to be placed on reducing fuels through timber thinning, mechanical treatments, etc. in order to allow burning to begin in some areas of the forest. He noted that the challenge involved with doing the appropriate level of prescribed burning at TBSF is great.

Question – Mr. Gimbert asked whether Tiger Bay or DOF staff have objections to allowing off-road access at Tiger Bay?

Answer: Mr. Graham noted that more research would need to be done to determine the feasibility of allowing OHV usage at Tiger Bay.

Question – Mr. Merrill asked whether he and his friend, Mr. Gimbert, will we be able ask questions and discuss later in the meeting.

Answer: Mr. Korn noted purpose of meeting is to allow public to ask questions, express their opinion on plan for state forest. He explained what will happen with comments, and what the MPAG group will do with the information obtained this evening. This MPAG is convened to conduct a public hearing, to listen to the input and to develop some consensus on what goes into the plan. If the MPAG consensus is that suggestions received at the hearing provide value to the management plan, then DOF will include them in a draft revision to be sent to Tallahassee. Mr. Korn explained that there are plenty of opportunities for changes to be made to the plan, and he will keep interested parties informed of the next public hearing that will occur in Tallahassee conducted by the Acquisition and Restoration Council some time in October 2010.

Question: How will the public interact at the meeting tomorrow?

Answer: Mr. Korn explained that tomorrow's meeting will be the MPAG meeting - more like a board of directors meeting – where members will have opportunity to discuss the plan and to give input. While it is a public meeting and anyone is invited, it is the opportunity for MPAG members speak – not the general public – unless acknowledged and permitted to do so by the MPAG group. After the DOF Director makes his recommendations, the draft plan as amended goes to the Division of State Land's Acquisition and Restoration Council (ARC) including review by representatives of other land management agencies, FNAI, TNC, etc. They will have 45 days to make any recommendations. The DOF will then respond to their recommendations. ARC will then conduct a public hearing in October 2010 in Tallahassee to get further input and to reach agreement on recommending approval of the plan to DEP. He noted that if the plan gets through the entire process, it will go onto the Consent Agenda for final vote by the governor and Cabinet.

Question: Is there a website that will lead the public through the process?

Answer: Bill Korn answered, no, not at this time.

Again the question was raised by Rob Merrill regarding what the DOF staff feels about looking at offering OHV. He stated that he is seeking to find out where there is resistance to this option.

Bill Korn offered to get contact information for Tami Leonard, OHV Coordinator for DOF.

Rob Merrill asked again whether there was anyone who has objection to OHV use at Tiger Bay State Forest. Steve Graham responded that it wasn't really fair or appropriate to put the staff on the spot to respond with a specific answer at this stage – that this wasn't really the forum for that discussion.

Mr. Merrill and Mr. Gimbart noted that existing two-path roads are disturbed and feel they are appropriate for OHV use.

Mr. Korn emphasized that DOF was here to listen and that at this point DOF would try to answer any questions – but that the discussion was getting beyond a question/answer format and that the proceedings needed to get back into that format. There would be time during the hearing for citizens to voice their opinions.

Question: Private citizen Jerri Hockman asked what would the state do to protect residents from ATV users if the use is allowed?

Answer: Mr. Korn noted that at this point, this is not in our plan and not an issue to be covered at this point.

Question: What are the sizes of the wells at Ormond Beach – the three new ones?

Answer: – 10” diameter wells.

Question: Do you have plans for the archeological sites?

Answered by Chris Kincaid: Typically, DOF’s goals would be to include interpretation and/or teaching about sites. These sites are sensitive. Our goal is to protect archeological sites. DOF is planning to continue to preserve them. Mr. Kincaid noted that most of the sites are off the beaten path. He noted that Indian Lake Recreation Area is built on a 1920s Boy Scout camp. DOF is planning to build a kiosk explaining the history at the Buncombe Hill Turpentine Camp.

Question: Were you planning to do restoration on any of those sites?

Answer: Chris Kincaid stated that DOF is attempting to make the old Brick Road (“Pershing Road) on the south side of U.S. 92 a hiking path; these efforts will involve some protection and restoration.

Question: What models were actually used for regarding hydrology studies on Rima Ridge related to municipal wells?

Answer: Cathy Lowenstein noted that St. Johns River Water Management District develops and monitors the hydrological models utilized.

Question about Exhibit N – Which wells are Ormond Beach and which belong to Daytona Beach?

It was noted that there are several supply wells and monitoring wells belonging to both Ormond Beach and Daytona Beach on Rima Ridge. Ms. Lowenstein indicated that on the map, Ormond Wells are in the northern portion of the Rima Ridge Tract; the Daytona Beach wells are to the south.

Question: Do you have a plan for acquiring land (Woody Tract area)?

Answered by Cathy Lowenstein: There are no specific plans at this time. Mr. Korn noted that if the land has conservation value, it is included in the plan as part of the Optimum Boundary (map exhibit). Mr. Graham noted that Tiger Bay’s priority interest would be the 117-acre strip along US 92.

Question: When hydrology assessments were conducted, was there a comparison with a county assessment?

Answered by Cathy: A hydrology assessment has not yet been completed.

Question: If OHV users approached other community groups for support, would this be a route to take to get the usage approved at Tiger Bay?

Answered by Bill Korn: Yes, input from other organizations may help. If the County Council submits a letter asking for something to be submitted into a plan, it would get some attention.

Question: In reference to issues regarding acquisition of new lands, if the State were to acquire these lands, would they become Wild Life Management Area (WMA) property? Would hunting be allowed and roads built?

Answered by Bill Korn: Generally, state forests are open to hunting, with some exceptions. Hunting is a passive nature-based, recreational use of the forest.

Question: Joie Alexander asked if we have figures showing the costs/revenue balance for Withlacoochee's Croom Motorcycle area regarding OHV and associated camping.

Answer: There was some discussion by DOF staff regarding how to find out more about these numbers and a suggestion was made to contact DOF's Tami Leonard at Withlacoochee for further information.

At this point, with no further questions, Mr. Korn closed this section of the public meeting and announced the meeting would now enter the public hearing phase. He announced that three individuals (with one wishing to speak as a private citizen and as a county employee) had completed speaker forms, and he would ask them to come forward one at a time to speak and offer their opinions on the TBSF plan.

Speaker#1: Rob Merrill

Mr. Merrill stated his advocacy for OHV use at Tiger Bay. He noted that OHV can generate big dollars for Tiger Bay. He stated that the DOF plan showed revenue generation in the hundreds of dollars but with OHV use modeled after the Croom Motorcycle Area (Withlacoochee State Forest) with a "million dollars" in receipts – revenue could be greatly increased at TBSF. He acknowledged that the big issue is protection of resources. He advocated for a balance between protection and usage by the public. He concluded by stating that he hopes DOF can consider other uses, particularly OHV.

Speaker#2: John Gamble, Volusia County Public Works Special Projects Coordinator

Mr. Gamble referenced the 2004 hurricanes and that the county uses temporary debris storage and reduction sites. He stated that Volusia County doesn't have a site in the northeast part of the county. Volusia County would like to develop a partnership with Tiger Bay State Forest to store and burn post-storm debris somewhere on Tiger Bay property. He referenced a letter that was emailed to Mr. Graham earlier today. The area Volusia County has in mind is south of Highway 40. This would be a 25-acre damaged/disturbed site where they can come in quickly. Mr. Gamble is requesting Tiger Bay State Forest to consider the County's request.

Speaker#3: Greg Gimbert, Daytona Beach

Mr. Gimbert feels that if we incorporated OHV usage into our plan, we could attract more tourist business. He noted ATVs are family-friendly. He noted that one of our goals is public access and recreation. He stated that this should be goal #1. He briefly talked about tourist-related goals of the City of Daytona Beach. Mr. Gimbert stated that people who use OHVs plan

vacations around where they are going to ride. He noted existing forest trails could be available for riding. His hope is that out of 27,000 acres, we can find a place for OHV usage.

Speaker#4: John Gamble – Private Citizen

Mr. Gamble noted that he is a wildlife lover and turkey hunter, and he is trying to find a way to help the forest. He recommended that on interior roads, 50 to 100 yards should be cleared and burned, stripping out some trees to provide natural habitat. He stated this would be great for wildlife viewing. He stated hunters would love to see large, open strips like this. He mentioned this can be easily manageable with fire and could provide large firebreak areas. He noted his request is for clearing just along the interior roads. He would like to see us provide more diverse habitat. He wants more grassland habitat.

Mr. Korn summarized and closed the meeting and announced the next MPAG meeting will convene at 9:30 a.m. Tuesday at this location. He noted that if citizens have specific input, he can provide information and ensure their comments are voiced at the next public hearing in Tallahassee.

**Tiger Bay State Forest
MPAG Meeting
May 18, 2010, 9:30 A.M.
Volusia County Agricultural Center Auditorium
DeLand, Florida 32724**

MPAG members Present:

Joie Alexander, Volusia County Council
Clay Benedict, Consolidated Tomoka Land Company
Alan Burton, Volusia County Soil and Water Conservation District
Jan Foster, Tiger Bay and Lake George Liaison Panel, Equestrian Groups
Mike Kuypers, DOF Bunnell District Manager
Crystal Morris, St. Johns River Water Management District (SJRWMD)
Brett Owsley, Florida Fish and Wildlife Conservation (FWC)
Ed Sherman, West Volusia Audubon Society
Randall Sleister, Volusia County, Division of Land Acquisition and Management

MPAG members Absent:

Rick Eversole, Tiger Bay and Lake George Liaison Panel (Hunters)

DOF Staff Present:

Steve Graham, Forestry Supervisor, Tiger Bay State Forest and Lake George State Forest
Vada Jackson, Senior Clerk, Tiger Bay State Forest
Chris Kincaid, DOF District 10 Recreation Coordinator
Cathy Lowenstein, DOF District 10 Resource Administrator
Bill Korn, Environmental Manager, DOF Director's Office

Other Attendees Present:

Michael Juncal, Tiger Bay State Forest adjacent Landowner
Dinah Pulver, Daytona Beach News Journal

Bill Korn convened the meeting at 9:30 a.m. Minutes from the May 17th, 2010 public hearing and MPAG meeting and additional attachments were distributed. Mr. Korn briefly summarized the previous evening's public hearing highlights. He explained the procedure for discussion and for making suggestions during today's meeting.

Mike Kuypers suggested opening today's activities with a discussion of the public comments from last night. Mr. Korn suggested the group discuss the OHV issue first. He summarized the request for OHV usage at Tiger Bay.

Joie Alexander noted that the purpose of the management plan was to restore native communities. She felt that OHV usage is in conflict with this goal. She noted that the county approved dirt bike special exceptions at the New Smyrna Speedway because there would not be impact to wildlife. She noted that wildlife and wildlife corridors would be disrupted if OHV usage is allowed in the forest. She also expressed concern regarding how OHV vehicles would

impact the topography. She stated that she would need more information on this impact. Mr. Benedict noted that OHV users could be directed to use the designated trails, but he feels there would be many who would not follow the rules, thus creating more damage. Mike Kuypers noted that the gates at TBSF are closed at night to reduce the problems of people doing donuts and tearing up the roads. Mr. Korn noted that Mr. Gimbert's request is for use of two-track trails and fire roads. Ed Sherman asked if there was anyplace else where OHV enthusiasts can go. Randy Sleister noted that the county issues permits for special OHV events. He noted the ongoing theme is that there is not enough DOF staff to accomplish restoration goals presently. If another layer of usage is added to Tiger Bay, all staff time will be spent on ATV use. Mr. Sleister noted that it is very difficult to control OHV usage, and that there would be a negative impact to the rest of the resources as well as to the area(s) designated to ATVs.

Chris Kincaid noted that the only way to make this work at all was to fence an area off. He noted that DOF would need additional resources to manage this new usage. Steve Graham referenced the natural inventories map and commented that many of our roads are in sensitive areas. He noted that this could be problematic. Mr. Sleister asked if there is an area at Tiger Bay that has lost its function. If so, such an area might be where DOF might consider such usage. There was some discussion about the track and trails at Croom Motorcycle Area, and Mr. Korn noted that there are many differences between Croom and Tiger Bay. Mike Kuypers added that there is an OHV-use area on private property in Flagler County.

Cathy Lowenstein asked if anyone could comment on whether it is appropriate to introduce OHV usage on closed landfill areas. Alan Burton indicated other recreational usages, such as golf courses have been established in old landfills.

Alan Burton discussed Mr. Gimbert's question regarding whether there was any staff objection to OHV at Tiger Bay. Mr. Burton suggested that DOF use a "Conflict Matrix" to study this proposal. He also suggested we consider doing a feasibility study on this issue. It was determined that "Capital Facilities and Infrastructure" is the goal under which this issue would fall. Noise abatement is a major issue. Mr. Burton noted that there would need to be something very large in place like a berm to aid in controlling noise from ATVs. He suggested we use a Conflict Matrix and a Feasibility study to help us answer whether we can support OHV usage at Tiger Bay.

Mr. Korn noted that there are three approaches that an agency can take as a response to an issue that has not been included in the plan:

1. Say "no" – the issue is not in the plan;
2. Say 'yes, we will consider adding,' then go back to the plan draft and add the non-included item.
3. Acknowledge that the proposed issue may have practical applications. In this case, we might consider more closely and add a feasibility study to the plan.

Mr. Kuypers noted that we are not anti-ATV, but the concern is whether the land is appropriate for OHV usage. He noted that there may be cases where we might sponsor short-term, special

OHV events. Brett Owsley noted that Ocala National Forest is taking great measures to avoid unrestrained OHV usage. He suggested that we might wish to speak to personnel there.

Chris Kincaid noted that Mr. Gimbert's concern seemed to be that he and his family do not have access to roads to which our staff has access. He expressed that we might be able to open some of our roads that are currently off-limits to the public for regular auto use – not ATV, or other OHV. Chris suggested that we study road usage with street-legal vehicles by the public. Cathy Lowenstein noted that we are continuing to map the service roads via utilization of volunteers at Tiger Bay. Upon completion of the mapping project, our goal is to assess the service roads to determine which ones can and should remain open and which ones should be closed. Steve Graham noted that because some of these run through swamps, mapping them is complicated by inability to access sections of them at certain times. Mr. Korn noted that once roads are open to the public, the legal definition is changed. They become a public highway. His point is that this is not just a matter of opening roads to the public. There are legal processes that must be considered. Joie Alexander referenced the economic development point that was mentioned at the hearing. She noted that if OHV was a good opportunity, entrepreneurs would have acted on developing these trails privately by now.

At this point, Mr. Korn asked the MPAG group for a recommendation on how to proceed on this issue. Steve Graham shared Rick Eversole's (absent MPAG member) comments regarding this issue. Per his written comments, Rick felt adding OHV usage to Tiger Bay's recreational activities would be difficult to manage. Brett Owsley added that, referencing some of the remarks made the evening before by OHV enthusiasts, DOF is not forcing anyone to ride illegally just because we don't allow people to ride ATVs on forest trails. Mike Juncal, a Tiger Bay State Forest adjacent landowner, asked if he could speak. Mr. Kuypers (chairperson) asked the group if anyone had a problem with Mr. Juncal speaking at this point. Everyone concurred it'd be all right. Mr. Juncal suggested acquiring property south and west of Tiger Bay and using it for ATV trail development, if the land is disturbed and appropriate. Mr. Juncal does not feel existing Tiger Bay Forest land is suitable for this form of recreation. He reiterated that land south of U.S. 92 might be suitable to address the noise concern. He suggested that if we want to acquire this land, let the OHV population pay for the property. Crystal Morris noted that OHV club members might be willing, through their clubs, to put forth effort to build and maintain OHV trails and roads. Alan Burton recommended that we make an assessment in-house with existing staff of the feasibility of OHV forest usage at Tiger Bay. Joie Alexander asked for refinement of Mr. Burton's recommendation. Mr. Burton suggested that Tiger Bay look at the forest as a whole, as well as at potential acquisitions and use a Conflict Matrix to identify whether there are potential areas that could be developed for this use or not. If an area is identified, then seek a feasibility study to determine appropriateness. Joie Alexander inquired about the present depth of Tiger Bay's staff. Is there a need for increased staffing to do this study? She stated if DOF does not have the staffing and ability to proceed, they should not pursue. Randy Sleister noted that OHV recreation is very good, but not suitable for Tiger Bay. If a feasibility study is done, it needs to be staff-related and low-key. Mike Kuypers noted that we can take a look at this issue without adding it to the plan. Brett Owsley recommended that we not put it in the plan.

Mr. Korn noted that he does not see a consensus for the proposal to add OHV usage to the management plan. Mike Kuypers stated the group consensus is to omit adding OHV usage to the plan. However, he stated staff will pursue in-house to study the appropriateness of OHV use at Tiger Bay.

Joie Alexander suggested the group proceed to the discussion about hurricane debris storage at Tiger Bay, as presented by Mr. John Gamble, Volusia County Public Works at the May 17th public hearing. Randy Sleister noted that the debris storage is short-term, but the impact on the forest would be long term. He noted that the debris is not always clean. Mr. Korn read a request from Mr. Recktenwald, Volusia County Public Works Director, that Tiger Bay allow a Temporary Debris Storage and Reduction Site (TDSRS) on 25 acres adjacent to State Road 40. Mr. Korn asked what Volusia County's priority level for this request would be. Joie Alexander stated that she is not aware of this request as a major County priority at this time. Her concern is that it goes against our goal to restore native communities. Mike Kuypers stated that this would be considered an incompatible use of our land. Mr. Korn requested the MPAG members' consensus, and the group agreed to leave it out of the plan.

Mr. Korn then opened discussion about John Gamble's comments as a private citizen regarding development of more linear strips along interior roads to promote multi-use and restoration of grassy areas along forest roads. Cathy Lowenstein noted that MPAG member, Rick Eversole, had submitted comments on this issue. Steve Graham read Mr. Eversole's comments, which stated that he likes the idea and feels it would provide good fire protection. Mr. Korn noted that John Bethea State Forest has identified similar areas and that the orientation of the roads and the mowed strips are east to west to minimize spread of large wildfires coming out of the Okefenokee Swamp. Pine plantations in these strips will also be planted east to west. These areas are one to two miles across and will be burned every two years to keep vegetation and fuel levels low. Alan Burton noted that per John Gamble's letter, there doesn't seem to be any limitation on acreage proposed. He suggested that we take one mile of road and use it as a test plot, monitoring it over a period of five years for results. Mike Kuypers noted that some mowing has been done on approximately two miles of Rima Ridge, but it would be problematic to do this on every road.

Mr. Korn inquired regarding which natural communities to which this would apply. Steve Graham responded that they would be the uplands, mesic flatwoods.

Crystal Morris stated she had reservations about doing this, since if we are talking about burning, this means adding fire lines. Alan Burton reiterated creating a test plot of 100 yards on both sides of the road for about a mile. Randy Sleister suggested creating a research plot of approximately 100 acres to set up as a model for the way we want the rest of the forest to look. The research plot can be used as an educational tool to educate the public and as a model for new staff. Mike Kuypers noted that research has been done. He mentioned development of a fuel-reduction plan. Brett Owsley noted that putting food plots along roads increases poaching, thus he would not suggest food plots.

Mr. Korn asked if there is a need to make an adjustment to the plan. Alan Burton referenced page 6, Goal 1, Objective 1, Performance measure: He recommended adding "One mile of

research plot for pines and fuel reduction plot.” Discussion ensued about the need to utilize as educational vs. research plots. Performance measure would be the number of acres of demonstration/education plots established. The MPAG members reached consensus regarding adding this wording to the plan.

After a brief break in meeting proceedings, Mr. Korn went around the table asking MPAG members for their suggested changes to the resource management plan.

Crystal Morris

Crystal Morris noted the following changes:

Page 16: The chart title either needs to be changed to “Nearby Conservation Lands and Conservation Easements” or remove Plum Creek Conservation Easement, Hagstrom Conservation Easement and Relay Tract Conservation Area. These are not public lands.

Page 16: Relay Tract – change “Area” to “Easement”

Page 16: Randy Sleister noted that Bicentennial Park should be deleted because it is not a public conservation area.

Exhibit C: Add “Small Lot Acquisition Program” University Highlands - 600-800 acres acquired. This is a target area for acquisition by Volusia County Land Acquisition and Management w/ bulleted (University Highland Small Lots)

Exhibit D: Optimal Boundary Map: highlight higher priorities.

Page 18: Discusses priority of piece between the two highways does not have a specific name. A good chunk is in the City of Remados. It was suggested to refer to it as the “US 92/Remados parcels.

Ms. Morris suggested using a spreadsheet listing daily why we are not burning. She stated that she has one where codes are used to indicate why prescribed burning was not happening. Steve Graham stated that he was already using a similar form for TBSF.

Exhibit K: Ms. Morris asked that we take another look at the list, because she felt there were some species not listed that should be; i.e. there are no owls on the list. She requested that we take a look at community plant list also. The group participated in a brief discussion about holding a one-day flora/fauna inventory (“Bio-Blitz”) – This would be a designated day to compile a list of species (plant and animal) that are on Tiger Bay. She offered some assistance in this regard from the St Johns River Water Management District biological staff.

Clay Benedict: Clay Benedict stated he had no comments, except for purchase of 1,000 acres identified in the optimum management boundary.

Randy Sleister: Randy Sleister stated that the plan was very well written; he offered the following suggestions:

Page 3, paragraph #1 – Mr. Sleister was concerned about using the word “devastation” when discussing the impact wildfires have on the forest. He urged us to think about how we talk about wildfires. He suggested using “change” or “altered” when talking about the impact of wildfires on the forest. He felt “devastation” was inaccurate when describing long-term impact.

Page 8, Objective #4, “Two Interpretive/Education Programs” Randy stated that he is willing to provide the County’s assistance for educational programs.

Pages 34 & 35: Mr. Sleister suggested adding something to the effect that Tiger Bay State Forest will attempt to coordinate with other agencies in providing educational offerings. He suggested we add verbiage referencing partnering with the County after “use of volunteers” wording on page 35.

Page 9, Goal # 5: Mr. Sleister suggested that we mention the development of the new CISMA.

Page 12, #5 Reforestation. Mr. Sleister recommended looking first at the groundcover in place. He suggested get groundcover in shape and plant pines at a later date. Focus on burning and cultivating the groundcover.

Page 18: Mr. Sleister will provide some wording for the “Additional Land Needs” section.

Page 20: Mr. Sleister noted the need to change verbiage to “County Council” from “Board of Commissioners.” Mr. Korn noted that DOF will also ask the City of Daytona Beach for a comprehensive plan compliance letter.

Page 26: Mr. Sleister noted the wording regarding avoiding mechanical disturbance of the Catesby Lily. He stated that some mechanical disturbance seemed to stimulate or benefit this plant. Steve Graham concurred with this observation.

Page 39: Mr. Sleister asked DOF to re-evaluate our basal area parameters (as expressed in the Silvicultural Guidelines section, pg. 39). He stated that a basal area of 30-60 is utilized by Volusia County. The current basal area goal stated in our management plan is 60-80 square feet per acre. Ms. Lowenstein recommended adjusting the general statement to “depending upon community type, between 40-80 basal area” in order to accurately reflect the various ranges recommended later in the plan’s silvicultural sections for the various natural communities. Mr. Sleister also noted that the measurable desired future condition (DFC’s) parameters for each natural community are not included in the plan (i.e. palmetto covers less than x-feet). He stated that he will send some recommended standards to Mr. Graham. Brett Owsley noted that FWC will eventually provide this for each state forest via the Wildlife Management Plan recommendations. He can provide the FWC parameters.

Alan Burton:

Page 3: Alan Burton reiterated Mr. Sleister’s concern about the use of the word “devastating” when discussing wildfire impact on the forest. He suggested that we explain the need to reforest, getting into the idea of why forest succession was not utilized.

Page 6: Mr. Burton inquired about what point in history we chose for restoration goals. Mr. Kuypers stated that he thought FNAI goes back to the pre-Colombian period. Ms. Lowenstein noted that this should be covered in section 18 (P. 50). Mr. Burton’s question/request is to provide a specific date. FNAI goes back to around 1850, which is the earliest date they can locate actual plant community descriptions using the land grant survey notes. Mr. Sleister stated that he does not wish to see us put a specific date on our restoration vision and goals.

A discussion about prescribed burning and “Firewise Community” was held. Mr. Kuypers distinguished between wildfire and prescribed burns. Ms. Lowenstein noted that there is a section on this in the plan. Mr. Burton suggested including a Firewise landscaping section as a goal in the plan for DOF to work with adjacent property owners.

Page 8, Hydrological preservation and restoration: Mr. Burton asked if the State Forest utilizes atmospheric water generation (AWG) for water uses on the forest. In Goal #3 he suggested listing hydrology preservation through green energy. The unit he referenced uses reverse osmosis. He noted that the unit cost is approximately \$1,300.

Page 8, Hydrological Preservation – Mr. Burton noted he did not see 100-year floodplain map and/or information in the plan. He inquired regarding how much of the state forest is under a 100-year floodplain. Mr. Sleister thinks this is available at the county and noted that this is a federal standard. Mr. Burton suggested we add this to our plan.

Page 9, Sustainable Forest Management: Mr. Burton commented that a sustainable forest can only be in market-driven conditions (economic term) and is not properly applied to a governmental condition.

Page 9, Goal# 5 Mr. Burton concurs with Mr. Sleister regarding adding the CISMA reference to the plan. He requested that the mention of it be added back into the plan.

Page 10, Capital Facilities and Infrastructure: In reference to performance measures, Mr. Burton suggested posting pictures of roadwork improvements on our website. He noted that this would provide a way to share what we are doing with the public.

Page 12, Reforestation: Mr. Burton asked why are we planting only pine? It was noted that this was primarily the areas salvage-harvested, and that the cypress swamp areas are naturally regenerating.

Page 13, #7, Recreation Program: Mr. Burton suggested that Tiger Bay State Forest work with St. Johns River Water Management District to market our recreational programming and facilities. Ms. Morris noted that SJRWMD features a page for Tiger Bay State Forest recreation in their literature.

Page 16, Exhibit C: Add the Flagler county line to this exhibit.

Exhibit D – Adjacent Public Resources: In response to Mr. Burton's inquiry about conservation land north of the wildlife crossing on SR 40, Ms. Lowenstein noted there is a private conservation easement, Hunters Ridge Conservation Area. Mr. Burton noted there is a publically-owned (Ormond Beach) 38-acre public land north of Highway 40 and east of Airport Road. He asked that these conservation lands be added to the Boundary Map.

Page 18 – Designated Single and Multiple Use Management: Mr. Burton suggested DOF look at activities that are not listed. He mentioned looking at other recreation activities compatible with natural surroundings.

Page 23, Paragraph 4: Mr. Burton suggested more plans to promote Indian Lake's historical and recreational significance through educational means.

Page 24 Recreation Coordinator: Mr. Burton commented that the future essential function of that job is volunteer coordination.

Page 28. Soil and Water Protection – Mentioned including use of the previously described AWG system for the headquarters site.

P. 31 – Existing Facilities and Recreational Activities: Mr. Burton suggested that Tiger Bay look at getting bus stops for Votran so that members of the public who do not have access to a vehicle or who prefer to ride their bicycles can visit the forest.

Page 32, Facilities: Mobile Home site – look at utilizing it as a volunteer host site.

Page 34, #8 – Environmental Education and Public Outreach: Mr. Burton suggested partnering with other entities, as discussed earlier in this meeting.

Page 35, Environmental Education and Public Outreach: Mr. Burton reiterated an emphasis on developing more educational efforts to connect with the public.

Page 75, Recreation Uses Monitoring: Use carrying capacity wording

Page 77 – Watershed – Needs revisiting or recommendation from DOF Hydrology Section. Add a map of Adjacent Agricultural Lands to State Forest – private sector

Ed Sherman

Mr. Sherman did not have any comments to add to the resource management plan.

Jan Foster

Page 35: Mr. Foster requested that the name of the horse camp on Tiger Bay SF be changed to Tram Road Horse Camp. He stated that the camp has been identified as a horse camp since the late 1990s and feels the current name “Tram Road Recreation Area” is not reflective of the horse camp’s original identity. Mr. Kuypers noted that he is ok with referring to the camp as “equestrian” or “horse” camp, but wants to be sure that all interested users understand that this area is not exclusive to one group. He recommended the name be “Tram Road Equestrian Area”

Brett Owsley

Page 34: Brett Owsley noted that hunting permits are randomly drawn, not “first come, first serve.” He requested we delete “first come, first serve” at the end of #vii.

Page 39: Mr. Owsley repeated his suggestion to look at lowering the basal area to standards discussed earlier.

Page 41 and Page 43, Wildlife & Fish Management: Mr. Owsley advised DOF to delete check station references. He stated that there is no funding for staffing check stations at Tiger Bay State Forest. He stated the reason for discontinuing check stations has to do with game numbers and vehicular access, as well as with funding and other factors. Chris Kincaid asked whether FWC would consider re-establishing check stations if DOF provided some kind of facility for an attendant. Mr. Owsley noted that DOF might consider getting a volunteer to serve this function, but he reiterated that FWC will not fund an attendant’s position. He informed the group that a new regulation requiring all deer to be tagged and checked-in either by phone or online within 24 hours will be in place for the next hunting season.

Page 55, Mesic Flatwoods: Mr. Owsley asked whether DOF was referring to canopy closure or cover estimate here when describing goal of maintaining “cover” to between 35-65%. The response by Mr. Korn and Ms. Lowenstein is that FNAI provided the parameters here, and the reference is to palmetto shrub layer.

Page 64, Scrub – Desired Future Condition: Mr. Owsley suggested that DOF utilize FWC’s parameters for Scrub conditions for inclusion in this plan.

Exhibit K – Species Listings for Tiger Bay: Mr. Owsley noted some errors in this exhibit and offered to provide DOF with an updated observed wildlife species list.

Mike Kuypers

Page 6, Objective# 3: Mr. Kuypers noted that this is more of a discussion than a real objective and recommended we either remove or change this objective.

Exhibit S, Historic Community Classification: Mr. Sleister suggested blending maps showing the current and historical natural community types. His particular focus was on DOF being able to identify those areas where the current land use or cover type was significantly different from the historical community conditions. Mr. Graham suggested adding an objective for the future development of a map.

Exhibit B: Crystal Morris questioned whether the name of the Old Daytona Road was accurately shown on the map. Mike Juncal, stated that on the Daytona side, the road was called Old Deland Road. On the Deland side it was called Old Daytona Rd. Mr. Graham will confirm the correct name for the section adjacent to the state forest.

It was determined there was no further business to be discussed. Mr. Korn adjourned the meeting at 12:37 p.m.

EXHIBIT F

LAND MANGEMENT REVIEW REPORT(S)

**Land Management Review of
Tiger Bay State Forest
Lease No.3976
March 25, 2004**

Prepared by Division of State Lands Staff

William Howell, OMC Manager
Sarah Hall, Administrative Assistant

*For
Tiger Bay State Forest Review Team*

FINAL REPORT

September 3, 2004

Land Manager:	<u>DOF</u>
Area:	<u>12,269</u>
County:	<u>Volusia</u>
Mngt. Plan Revised:	<u>04/21/2000</u>
Mngt. Plan Update Due:	<u>04/21/2010</u>

Management Review Team Members

Agency Represented	Team member Appointed	Team member In attendance
DOF	Bill Korn	Bill Korn
DEP District	Brenda Borgiet	Brenda Borgiet
DRP District	Charlie Dutoit	Charlie Dutoit
FWCC	Zareh Ghokassian	Zareh Ghokassian
County	Steven Kintner	
Conservation Org.	Ingrid Swenson	Ingred Swenson
Soil and Water Cons. Dist.	Blanche Smith	Blanch Smith
Private Land Manager	Joe Benedict	
Observer	Carolyn Kindell	Carolyn Kindell

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 Acquisition and Restoration Council, 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 Tiger Bay State Forest considered approximately 12,269 acres in Volusia County that are managed by the Division of Forestry (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 DOF management plan was approved on April 21, 2000, and the management plan update is due on April 21, 2010.

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 that Tiger Bay 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 that actual management practices, including public access, were in compliance with the management plan for this site.

Commendations to the Managing Agency

1. The Team commends the DOF for the excellent reforestation effort following the 1998 wildfires. (VOTE 6+, 0-)
2. The team commends the manager and staff for the outstanding road improvements throughout the forest. (VOTE 6+, 0-)
3. The team commends the manager and staff for their outstanding creative effort with the design and construction of the roadside kiosks, and with the interpretive exhibits displayed there. (VOTE 6+, 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

Exceptional management actions:

- Management and protection of the Dome Swamp, Strand Swamp, Baygall, Mesic/wet Flatwoods, Lakes/Ponds communities.
- Protection and preservation of listed animals.
- Survey of cultural sites.
- Excellent area, frequency and quality of the prescribed burns.

- Excellent management of Wildlife Habitat.
- Excellent control of invasive plants and animals.
- Excellent monitoring of ground and surface water quality and quantity.
- Excellent roads and culverts/ditches.
- Exceptional boundary surveys, gates and fencing, and signage.
- Excellent law enforcement presence.
- Excellent awareness of impacts from expanding development and well fields.
- Exceptional success in acquiring inholdings and additions.
- Exceptional silvicultural practices.
- Exceptional roads, parking and recreational opportunities.
- Excellent interpretive facilities and environmental outreach.
- Exceptional sanitary facilities and waste disposal program.
- Exceptional buildings, equipment, and funding.

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 DOF complete a detailed natural community map and a flora and fauna survey of the forest. (VOTE: 6+, 0-)

Manager's Response:

Agree. TBSF has requested funding for a survey and map of historic natural communities as requested by management review team and as per Resource Management Plan to aid in landscape-level management. These surveys will be evaluated statewide and prioritized.

2. The team recommends that the DOF coordinate with the Water Management District and other appropriate entities, such as the Volusia County Water Alliance, to gather existing information to monitor and determine probable impacts from regional water use on forest resources. (VOTE: 6+, 0-)

Manager's Response:

Agree. DOF will cooperate with SJWMD on setting up a protocol for monitoring changes/impacts on the Rima Ridge Tract due to local/regional water use.

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 of efforts to restore ditches (p).

Manager's Response:

There are no plans to restore ditches on the current TBSF road system. Ditches are maintained for road integrity, and to provide public access.

2. Discussion in the management plan of the ground and surface water issues (p).

Manager's Response:

Discussion on ground and surface water issues will be discussed further in the TBSF management plan in Section III B 3.

3. Discussion in the management plan of the need for plant surveys and list. (p?).

Manager's Response:

The need for floral and faunal surveys has been discussed in the 1998-2003 Resource Management Plan in Section P #6. It is also listed as a management need in the current management plan and there are plans to request survey(s) in 2005-2006.

Team Member's Comments

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

- The baygall doesn't appear to be the correct typing of this area.
- The depression marshes require more detailed mapping and analysis of the appropriate restoration needs. Continued work is needed to identify these sites and remove the slash pine and restore hydrology.
- The wet prairies are not well defined.
- The baygall area is in need of a burn.

Listed Species: protection and preservation: (I.B)

- Recommend plant and animal surveys and documentation.
- Habitats should be created if they are non-existent and maintained to maximize the number of species that can exist in Tiger Bay.
- Recommend mapping the locations of listed plant species and implement a management measure.

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

- There were no cultural resources found besides a brick road.
- The management plan needs to highlight the recent cultural survey that was completed in 2001.
- The cultural resources need to be identified and surveyed more accurately.

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

- The management plan should be more specific in its goals for the growing season fires.
- The four year rotation is excellent, rather than some other park's 3-7 year rotation.

Restoration of Disturbed Natural Communities: (III.B)

- There needs to be a handle on the acreage left to restore.

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

- There is limited evidence of the roads of tracks and actual wildlife.
- There is moderate hunting quality but great information posted at entry points regarding the harvest information and harvest results.
- The fishing quality may diminish greatly if FFWC plans to stop restocking the ponds. Forestry personnel stated that there is not many fish in the ponds occurring naturally.

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

- Recommend exotic plant monitoring and control after surveys.
- The management plan should provide an update on current exotic species and their control efforts.
- Good work staying on top of the small populations.
- The hog population is being kept at bay.

Hydrologic/Geologic Function: (III.E)

- Some culverts are in need of a cleaning at Dukes Island.
- The road improvements over the last five years have been dramatic.
- The management plan should provide greater research and information on the surface water flows, modeling and restoration needs.
- Excellent job was done in installing several hard rock and low water closings.
- More work is needed to address the impeded surface flows along Dukes Island Road.
- The plan does not address the impact of ditch/canal drainage on surface water and wet lands.
- The plan does not address the Volusia (sole-source) aquifer and the impacts of withdrawals by urban Daytona well fields.
- The plan does not address the regional watershed.
- Bear Island Road is in good shape with the culverted system. Though Dukes Island needs some culvert maintenance and upgrading. Some hydrological mapping may be needed in the area.
- Studies are needed on the possible ground water changes due to wells and weir issues. How will these effect the forest ecosystems that are presently found?
- There is data needed from SJRWMD to get information on water especially changes that occur from wells.

Resource Protection: (III.F)

- The roadside DOF signage is excellent.
- There is one law enforcement officer for the area but is currently over seas. For such a large area as Tiger Bay and the allowance of hunting on the property, safety should be a top priority.

Adjacent Property Concerns: (III.G)

- Recommend providing evaluation of any additional adjacent property needs.
- Excellent work was done to acquire lands within optimal management boundaries.

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

- Novel idea in using geocaching to inform and educate the public.
- Recreation opportunities are very rustic in keeping with the forest environment and current public use demands.
- Superb kiosk design and content. It was largely designed and constructed by local staff.

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

- There needs to be a biologist on staff at least part time to provide ecological perspective.
- The office building needs upsizing.
- Additional permanent staff is needed to support recreational and biological work. (recreation coordinator, staff assistant, ranger, and biologist needed)
- There needs to be additional sanitary facilities. Only one was seen on entire field review.

Managed Area Uses: (VI.B.)

- Horseback riding is not appropriate on the existing nature trail.

Exceptional Management Actions:

- Great restoration after the 1998 wildfires.
- Roads have improved and are well maintained.
- Excellent quality of kiosks.
- Excellent survey by DHR (2001) of state forest sites.
- Efforts to replant 6500 acres after wildfires have been largely successful.
- The improvements to forestry roads have been exceptional.
- Timber management is great.

Recommendations for Improving Management of this Site:

- Recommend putting signs on roads in the forest providing direction to key areas like Indian Lake, picnic areas and campgrounds.
- The regional water use impact on Tiger Bay must be evaluated and utilized by the staff.
- Signs need to be put up on US92 to specify distance to turnoffs before the turnoffs into the forest. It is especially important on the eastbound side. The speed limit is 65mph and one needs to make a left turn into some entrances and a right turn into others. Slowing down to make these turns is dangerous when traffic is moving in excess of 70-80mph behind you.
- Recommend allowing more time in the field to actually see the areas on evaluation days.
- Recommend that during high water events, observation and notes should be taken on the flow direction (across forest roads).
- Suggest that the management plan capture current data on the wellfields and hydrological modeling related to WMD Weir Project.
- Recommend evaluating turnoffs and u-turns off of US92 to head quarter's site. This is a real safety concern.
- Recommend FNAI natural community mapping.
- Recommend surveys of plants and animals.

Attachment I

PLAN REVIEW		1	2	3	4	5	6	Average
Dome Swamp	I.A.1	1	1	1	1	1		1.00
Strand Swamp	I.A.2	1	1	1	1	1		1.00
Depression Marshes	I.A.3	1	1	1	0	1		0.80
Baygall	I.A.4	1	1	1	0	1		0.80
Mesic Flatwoods	I.A.5	1		1	1	1		1.00
Wet Flatwoods	I.A.6	1		1	1	1		1.00
Lakes/Ponds	I.A.7	1		1	1	1		1.00
Animals	I.B.1			1	1	1		1.00
Plants	I.B.2			1	0	1		0.67
Survey	II.A	1		1	0	1		0.75
Protection and Preservation	II.B	1		1	1	1		1.00
Area Being Burned	III.A.1	1		1	1	1		1.00
Frequency	III.A.2	1		1	1	1		1.00
Quality	III.A.3	1		1	0	1		0.75
Depression Marshes	III.B.1	1		1	1			1.00
Wildlife Habitat	III.C.1	1		1	1	1		1.00
Hunting/Fishing Quality	III.C.2	1		0	1	1		0.75
Animals	III.D.1	1		1	1	1		1.00
Plants	III.D.2	1		1	0	1		0.75
Roads/Culverts	III.E.1a			1	0	1		0.67
Ditches	III.E.1b			1	0	0		0.33
Ground water quality	III.E.2a			0	1	0		0.33
Ground water quantity	III.E.2b			0	1	0		0.33
Surface water quality	III.E.3a			0	0	1		0.33
Surface water quantity	III.E.3b			0	0	0		0.00
Boundary survey	III.F.1			1	1	1		1.00
Gates & fencing	III.F.2			1		1		1.00
Signage	III.F.3			1	1	1		1.00
Law enforcement presence	III.F.4			1	1	1		1.00
Expanding Development	III.G.1a				1	1		1.00
Inholdings/additions	III.G.2			1	1			1.00
Silvicultural practices	III.H.2	1		1	1	1		1.00
Roads	IV.1a	1		1	1	1		1.00
Parking	IV.1b	1		1	1	1		1.00
Recreational opportunities	IV.2	1		1		1		1.00
Interpretive facilities and signs	IV.3	1				1		1.00
Environmental education /outreach	IV.4	1						1.00
Hiking	VI.A.1	1	1	1	1	1	1	1.00
Hunting/Fishing Quality	VI.A.2	1	1	1	1	1	1	1.00
Nature Appreciation	VI.A.3	1	1	1	1	1	1	1.00
Fishing	VI.A.4	1	1	1	1	1	1	1.00
Horseback Riding	VI.A.5	1	1	1	1	1	1	1.00
Picnicking	VI.A.6	1	1	1	1	1	1	1.00
Bicycling	VI.A.7	1	1	1	1	1	1	1.00
Geocaching	VI.A.8	1	1	1	1	1	1	1.00

Multiple Use Trails	VI.B.1	1	1	1	1	1	1.00
Information/Observation Stations	VI.B.2	1	1	1	1	1	1.00
Parking Areas	VI.B.3	1	1	1	1	1	1.00
Boat Ramps	VI.B.4	1	1	1	1	1	1.00
Primitive Camp Sites	VI.B.5	1	1	1	1	1	1.00

Field Review

Dome Swamp	I.A.1	4	4	4	4	4	4.00
Strand Swamp	I.A.2	4	4	4	4	5	4.17
Depression Marshes	I.A.3	4	3	3	3	2	3
Baygall	I.A.4	4	4x		3	4	3.6
Mesic Flatwoods	I.A.5	4	5	4	3	3	4
Wet Flatwoods	I.A.6	4	5	4	3	3	4
Lakes/Ponds	I.A.7	4	5	3	3	3	3.8333
Animals	I.B.1		4	4	3	4	3.2
Plants	I.B.2		3	4	2	2	2.4
Survey	II.A			5	4	5	3.75
Protection and Preservation	II.B			4	3	5	3.25
Area Being Burned	III.A.1	5	5	4	3	4	4.3333
Frequency	III.A.2	5	5	4	3	4	4.3333
Quality	III.A.3	5	5	4	3	4	4.33
Depression Marshes	III.B.1	4			3	3	3.25
Wildlife Habitat	III.C.1	4	4	4	3	4	3.83
Hunting/Fishing Quality	III.C.2	4	4	4	3	3	3.33
Animals	III.D.1	5	4	4	4	4	4.33
Plants	III.D.2	4	4	4	4	4	4.17
Roads/Culverts	III.E.1a		3	5	4	4	3.80
Ditches	III.E.1b			4	3	3	3.75
Well Fields	III.E.1c		2	4	3		2.75
Ground water quality	III.E.2a		5	4	3		4.25
Ground water quantity	III.E.2b		5	4	3		4.25
Surface water quality	III.E.3a		5	4	3		4.25
Surface water quantity	III.E.3b		4	4	4		4.25
Boundary survey	III.F.1		4	4	3	4	4.00
Gates & fencing	III.F.2		4	4	3	4	4.00
Signage	III.F.3		5	4	4	4	4.40
Law enforcement presence	III.F.4		5	4	3	3	3.60
Expanding Development	III.G.1a		4	4	3	3	3.60
Well Fields	III.G.1b		4		3		3.67
Inholdings/additions	III.G.2		4		4	4	4.25
Silvicultural practices	III.H.2	5	5		4	5	4.80
Roads	IV.1a	5	4	5	4	4	4.50
Parking	IV.1b	5	4	4	3	5	4.33
Recreational opportunities	IV.2	5	4	5	3	4	4.33
Interpretive facilities and signs	IV.3	5	4	5	5	4	4.67

Environmental education /outreach	IV.4	5	4	5	3	3	5	4.17
Waste Disposal	V.1a	5	5	4	3	4	5	4.33
Sanitary Facilities	V.1b	5	5	4	3	5	4	4.33
Buildings	V.2a	5	5	4	2	3	5	4.00
Equipment	V.2b	5	5	5	3	4	5	4.50
Staff	V.3	5	4	4	2	3	1	3.17
Funding	V.4	5	5	4	3	3	5	4.17

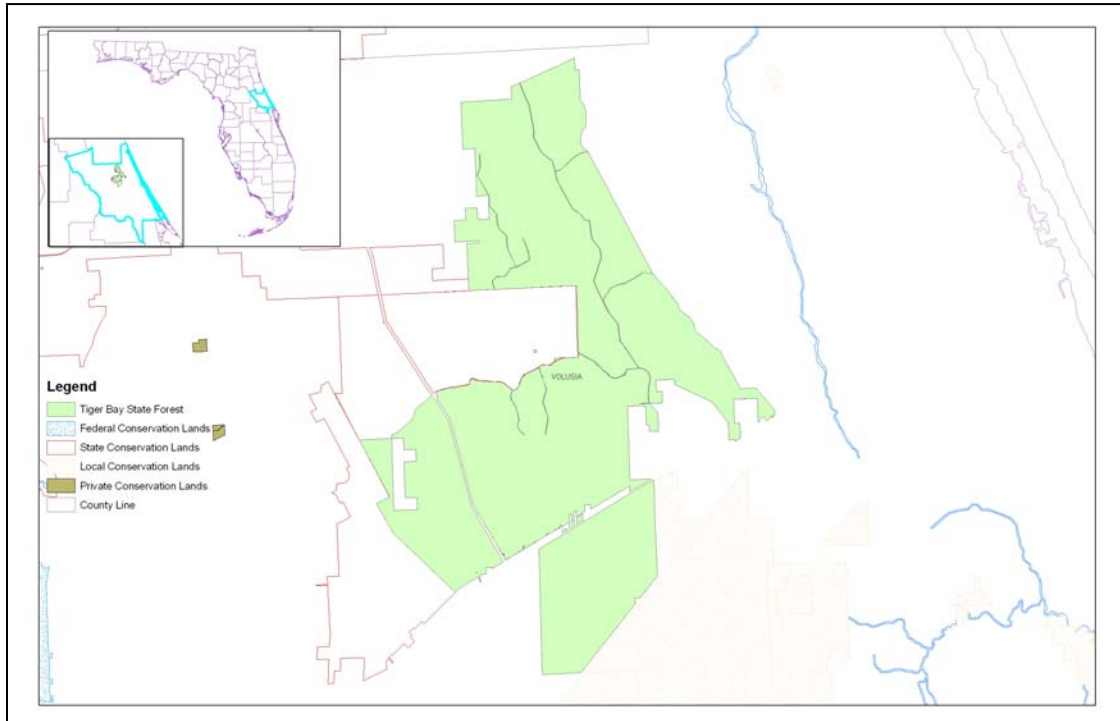
Name of Site: Tiger Bay SF

County: Volusia County

Managed by: Department of Agriculture and Consumer Services
Division of Forestry

Acres: 23,432 Acres

Review Date: 06/10/09



Review Team Determination

Managed in accordance with acquisition purpose? Yes = 6, No = 0, Abstain = 1



Management practices, including public access, in compliance with the management plan? Yes =6, No = 0, Abstain = 1



Categories	Management Plan Review	Field Review
Natural Communities	0.42	2.89
Listed Species	0.25	2.93
Natural Resource Survey	0.62	3.29
Cultural Resources	0.86	3.93
Prescribed Fire	0.59	2.05
Restoration	0.14	3.07
Exotic Species	0.58	3.84
Hydrology	0.49	3.26
Groundwater Monitoring	0.50	3.33
Surface Water Monitoring	0.43	2.98
Resource Protection	0.60	3.86
Adjacent Property Concerns	0.25	3.67
Public Access & Education	0.77	3.68
Management Resources	N/A	4.00
Managed Area Uses	1.00	N/A
Buildings, Equipment, Staff & Funding	N/A	2.50

Consensus Commendations to the Managing Agency

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

1. The team commends the DOF for their efforts to map and delineate the natural communities of the forest. (VOTE: 4+, 0-)



2. The team commends the DOF for the amount of work being done at this forest with the limited staff and resources. (VOTE: 4+, 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 DOF develop a budget analysis of the true cost to manage the site, to be submitted to the legislature, to address fire management and resource restoration needs. (VOTE: 4+, 0-)



Managing Agency Response:

The Division understands that issues related to funding for land management expenses may at times impact our ability to address fire management and restoration needs on state lands. The Division administrative staff annually review and analyze the budgets of each State Forest and make recommendations to the legislature for funding personnel, equipment and expenses. The Division must of course balance our funding efforts between 35 state forests - all with special needs. However, the Division will encourage our Tiger Bay State Forest staff to review thoroughly the fire and restoration needs and priorities identified on this forest in preparing its annual budget request, being sure to address any special funding or equipment needs necessary to accomplish the stated DOF goals/objectives for this forest.

The revised management plan, which is currently in draft process, will include Management Needs, Priority Schedule, and Cost Estimates to include personnel, equipment, and funding required to address identified management needs, including fire management and resource restoration, of the state forest.

Checklist Findings

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

- Natural Communities, specifically dome swamp, swamp basins, depression marsh/basin marsh, baygall, lakes and ponds.
- Natural Resource survey, specifically fire effects monitoring, and invasive species survey/monitoring.
- Cultural resources, specifically cultural resource survey, protection and preservation.
- Resource management, specifically frequency.
- Non native, invasive problem species, specifically control of plants, animals and pests/pathogens.
- Hydrologic/Geologic function, specifically ditches.
- Ground and Surface Water Monitoring, specifically
- Resource protection, specifically boundary survey, signage and law enforcement presence.
- Public access and education, specifically roads, parking, wildlife, invasive species, habitat management activities, interpretive facilities and signs, recreational opportunities and management of visitor impacts.

- Managed area uses, specifically hunting, fishing, hiking, horseback riding, picnicking, nature study and wildlife viewing.

The following items received low scores on the review team checklist, which indicates that management actions noted during the Field Review (FR) were not considered sufficient (less than 2.5 score on average), or that the text noted in the Management Plan Review (PR) does not sufficiently address this issue (less than .5 score on average.). The management plan must include responses to the checklist items identified below:

(Please note that in our Agency Responses below – we have made an effort to be very specific where these issues are being addressed in our new draft management plan for this property - 10/1/09)

1. Discussion in the management plan regarding Natural Communities, specifically Mesic Flatwoods (FR,PR), Wet Flatwoods (FR,PR), Wet Prairie/ECOTONE (FR,PR), Sandhill (FR,PR), Depression Marsh, Scrub and Scrubby Flatwoods. (FR)

Managing Agency Response:

Following a Florida Natural Areas Inventory (FNAI) survey of natural communities in 2005, a narrative detailing the Desired Future Conditions (DFC's) and proposed management activities for each was completed. This information is included in a management plan revision currently under draft (Section IV.B). Management plan discussion in this section addresses many of the concerns and comments from the field and plan review.

2. Discussion in the management plan regarding Listed Species, specifically Animal Inventory, Gopher Tortoise, Plant Inventory, and Rugels PawPaw. (PR)

Managing Agency Response:

- *The general intent to survey and develop monitoring plans for sensitive species is stated in the draft management plan revision in Management Concepts/Activities, Section IV.A.9 b. Section III B.5 lists and describes known occurrences of threatened and endangered species. Both gopher tortoise and Rugels pawpaw are included in the section. DOF's responsibilities concerning a Gopher Tortoise Habitat Mitigation Area are described in III B. 5 and Section IV.A.9.b.*
- *A list of all observed wildlife and plant species may be included in the exhibits of the revised RMP.*
- *A rare plant and animal species inventory is one of the stated goals for the forest and will be included in Sections I.C., and Section V.B., Management Needs.*

3. Discussion in the management plan regarding Natural Resources, specifically Game Wildlife/Habitat Monitoring, Listed Species/Habitat Monitoring, Other Non-Game Species/Habitat Monitoring and Other Habitat Management Effects Monitoring. (PR)

Managing Agency Response:

Draft management plan discussion on species, habitat and management effects monitoring includes:

- *Section IC, Goals & Objectives, includes objectives to develop baseline inventories, monitoring protocols, and implement monitoring of imperiled species.*
- *Section IV.A.9 addresses wildlife management, identifies the FWC as responsible for the biological aspects of wildlife populations; and calls for continued biological surveys and monitoring plans for sensitive species.*
- *Section V.B. Management Summary identifies management needs for providing for rare species inventory and surveys.*

4. Discussion in the management plan regarding Resource Management, specifically Area Being Burned and Quality. (PR, FR)

Managing Agency Response:

The draft management plan revision, Section I.C, states objectives for annual acreage to burn as well as to maintain under the target burn interval.

Prescribed fire discussion is included in several parts of Section IV.A., Existing and Planned Uses: Section IV.A.5, Fire Management, addresses frequency, use as a restoration tool, and natural community

considerations. Section IV.A.6 discusses silvicultural applications. Section IV.A. 15&16 address restoration and maintenance applications. Section IV.B, Description of Natural Communities and Proposed Management Activities, identifies burn intervals and prescribed fire objectives for each community type.

Regarding resources/staffing needed to address the challenge, Section V.B Managements Needs/Priorities, Prescribed Fire needs are discussed as the # 1 priority and includes recommendations for additional staffing and equipment as well as routine annual costs.

5. Discussion in the management plan regarding Restoration of Ruderal Areas, specifically Scrub Restoration and Wildfire Firelines Restoration. (PR)

Managing Agency Response:

Overall habitat restoration objectives are stated in Section, I.C of the draft management plan revision, including short and long term goals for acreage restored and under restoration. Sections IV. A. 16 deals generally with restoration. Community specific restoration goals are stated in Section IV. B.

Scrub restoration is covered in Section IV.B.6. More specific operational goals and activities are specified in the 5 Year Ecology Operational Plan and a planned scrub restoration/management plan will incorporate restoration guidelines and success criteria.

Wildfire fireline restoration – The intent to minimize and restore fire lines is covered in several places in the draft management plan revision: Section IV.A.5, Fire Management, and Section IVA.16.b., Restoration- Hydrology; also repeated within each natural community description in Section IV.B.

6. Discussion in the management plan regarding Non-Native, Invasive & Problem Species, specifically Prevention of Plants, Animals, and Pests/Pathogens. (PR)

Managing Agency Response:

A Non-native Invasive Plant Survey conducted in 2006, and an Invasive Species Management Plan completed in 2008 with plant-specific status and treatment narratives are discussed in the draft management plan revision, Section III.B.10. Feral hog, the only identified invasive animal on TBSF, is also described. Section III.B.11 further discusses forest health, insects and disease.

Prevention strategies to reduce spread and provide for contained equipment cleaning are included in the 5 Year Ecology Operational Plan.

7. Discussion in the management plan regarding Hydrologic/Geologic Function, specifically Roads/Culverts, Hydro-period Alteration, Water Level Alteration, Dams, Reservoirs, and Other Impoundments. (PR)

Managing Agency Response:

Section I.C. states the goal to conduct a hydrological assessment of the forest; and the assessment has been scheduled for 2009-10. Section III. B.7 describes objectives concerning wetlands and restoration activities. Section IV.A.2 Soil and Water Protection discusses the Thayer Canal weir, intended to alter canal drainage, and Water Management District involvement in monitoring water levels of both surface and surficial aquifer water and hydrological modeling. Section IV.A.16b, discusses hydrological restoration, including the Thayer Canal weir, road and fireline restoration. Section IV.B further discusses community specific hydrological restoration activities. BMPs are employed during silvicultural, road, or fireline operations as stated in Section V.C.2.

8. Discussion in the management plan regarding Ground and Surface Water Monitoring, specifically Ground/Surface Water Quality and Quantity. (PR)

Managing Agency Response:

Section IV.A.2 covers Water Management District involvement in monitoring water levels of both surface and surficial aquifer water; an exhibit is included illustrating the location of water supply and monitoring wells.

9. Discussion in the management plan regarding Resource Protection, specifically Gates/Fencing (PR) and Law Enforcement Presence (FR).

Managing Agency Response:

Section IV.A.4 describes public access provisions, including gates installed on Rima Ridge; Section IV.A.8., Law Enforcement, describes responsibilities and coordination with the FWC, Volusia Sheriff's Office and applicable regulations under 51-4. Management needs, priorities, and anticipated costs for law enforcement /security and fencing are identified in Section V.B.

10. Discussion in the management plan regarding Adjacent Property Concerns, specifically Expanding Development, Well Fields, and Inholdings and Additions. (PR)

Managing Agency Response:

- Adjacent property concerns and development are addressed in Section II.B. 7, Adjacent Conflicting Uses.
- Well fields are described under IV.A.13, and shown in the exhibit “Water Supply Wells and Monitoring Wells Map”. Well field impacts are discussed under Section IV.A.2, Soil and Water Protection.
- Inholdings and Additions - see Section IIB.6, Additional Lands Needs and exhibit, “Optimum Boundary Map”

11. Discussion in the management plan regarding Management Resources, specifically Staff and Funding. (FR)

Managing Agency Response:

The draft management plan revision includes this discussion in Section V.B., Management Needs, Priority Schedule, and Cost Estimates. Staff, equipment, expense and contractual needs to reinforce restoration and prescribed burning priorities are prioritized.

APPENDIX A:

PLAN REVIEW		1	2	3	4	5	6	7	AVERAGE
Natural Communities (I.A)									
Dome Swamp	I.A.1	0	1	1	1	1	1	1	0.86
Swamp Basins	I.A.2	0	1	1	1	1	1	1	0.86
Depression Marsh/ Basin Marsh	I.A.3	0	1	0	0	1	1	1	0.57
Baygall	I.A.4	0	1	1	1	1	1	1	0.86
Mesic Flatwoods	I.A.5	0	0	0	0	1	1	0	0.29
Wet Flatwoods	I.A.6	0	0	1	0	1	1	0	0.43
Lakes/Ponds	I.A.7	0		1	1	1	1	1	0.83
Wet Prairie/ Ecotone	I.A.8	0	1	0	0	0		0	0.17
Sandhill	I.A.9	0	1	0	0	0		0	0.17
Scrub	I.A.10	0	0	0	0	0		0	0.00
Scrubby Flatwoods	I.A.11	0		0	0	0		0	0.00
Hydric Hammock	I.A.12	0		0	0	0		0	0.00
Listed species:Protection & Preservation (I.B)									
Animal Inventory	I.B.1	0	1	0	0	1	0	0	0.29
Gopher Tortoise	I.B.1.a	0	1	0	0	0	0	0	0.14
Plant Inventory	I.B.2	0	1	0	0	1	0	0	0.29
Rugel's Pawpaw	I.B.2.a	0	1	0	0	1	0	0	0.29
Natural Resources Survey/Management Resources (I.C)									
Game wildlife / habitat monitoring	I.C.1	0	1	0	0	1	1	0	0.43
Listed species / habitat monitoring	I.C.3	1	1	0	0		1	0	0.50
Other non-game species / habitat monitoring	I.C.4	0	1	0	0	0	1	0	0.29
Fire effects monitoring	I.C.5	1							1.00
Other habitat management effects monitoring	I.C.6		1	0	0	1	1		0.50
Invasive species survey / monitoring	I.C.7	1	1	1	1		1	0	1.00
Cultural Resources (Archeological & Historic sites) (II.A,II.B)									
Cultural Res. Survey	II.A	1	1	1	1	1	1	0	0.86
Protection and preservation	II.B	1	1	1	1	1	1	0	0.86
Resource Management, Prescribed Fire (III.A)									
Area Being Burned (no. acres)	III.A.1	1	0	0	0	1	1	0	0.43
Frequency	III.A.2	1		1	1	1	1	0	0.83
Quality	III.A.3	1		0	0	1	1	0	0.50
Restoration of Ruderal Areas (III.B)									

Scrub Restoration	III.B.1	0	1	0	0	0	0	0	0.14
Wildfire Firelines Restoration	III.B.2	0	1	0	0	0	0	0	0.14
Non-Native, Invasive & Problem Species (III.E)									
Prevention									
prevention - plants	III.C.1.a	0	1	0	1		1	0	0.50
prevention - animals	III.C.1.b	0	1	0	1		1	0	0.50
prevention - pests/pathogens	III.C.1.c	0	1	0	0		1	0	0.33
Control									
control - plants	III.C.2.a	1	1	1	1	1	1	0	0.86
control - animals	III.C.2.b	1	1	0	1	1	1	0	0.71
control - pest/pathogens	III.C.2.c	0	1	1	0	1	1	0	0.57
Hydrologic/Geologic function Hydro-Alteration (III.F.1)									
Roads/culverts	III.D.1.a	1		1	0	1	0	0	0.50
Ditches	III.D.1.b	1		1	0	1	1	0	0.67
Hydro-period Alteration	III.D.1.c			0	0	1	1	0	0.40
Water Level Alteration	III.D.1.d			0	0	1	1	0	0.40
Dams, Reservoirs or other impoundments	III.D.1.e	0		0	0	1	1	1	0.50
Ground Water Monitoring (III.F.2)									
Ground water quality	III.D.2.a	0	1	1	0		1	0	0.50
Ground water quantity	III.D.2.b	0	1	1	0		1	0	0.50
Surface Water Monitoring (III.F.3)									
Surface water quality	III.D.3.a	0	1	1	0	0	1	0	0.43
Surface water quantity	III.D.3.b	0	1	1	0	0	1	0	0.43
Resource Protection (III.G)									
Boundary survey	III.E.1	0	1		1	1	1	0	0.67
Gates & fencing	III.E.2	0	1		0	1	1	0	0.50
Signage	III.E.3	0	1		1	1	1	0	0.67
Law enforcement presence	III.E.4	0	0	1	1	1	1	0	0.57
Adjacent Property Concerns (III.H)									
Land Use									
Expanding development	III.F.1.a	0	1	1	0	0	1	0	0.43
Well Fields	III.F.1.b	0	1		0	0	0	1	0.33
Inholdings/additions	III.F.2			0	0	0	0	0	0.00
Public Access & Education									
Public Access									
Roads	IV.1.a	1	1	1	1	1	1	1	1.00
Parking	IV.1.b	1	1	1	1	1	1	1	1.00
Environmental Education & Outreach									
Wildlife	IV.2.a	1	1	1	0	1		0	0.67
Invasive Species	IV.2.b	1	1	1	0	1		0	0.67
Habitat Management Activities	IV.2.c	1	1	1	0	1		0	0.67
Interpretive facilities and signs	IV.3	1	1	1	0	1		0	0.67

Recreational Opportunities	IV.4	1	1	1	1	1		0	0.83
Management of Visitor Impacts	IV.5	1	1	1	0	1		0	0.67
Managed Area Uses									
Existing Uses									
Hunting	VI.A.1	1	1	1	1	1	1	1	1.00
Fishing	VI.A.2	1	1	1	1	1	1	1	1.00
Hiking	VI.A.3	1	1	1	1	1	1	1	1.00
Horseback Riding	VI.A.4	1	1	1	1	1	1	1	1.00
Picnicking	VI.A.5	1	1	1	1	1	1	1	1.00
Nature Study	VI.A.6	1	1	1	1	1	1	1	1.00
Wildlife Viewing	VI.A.7	1	1	1	1	1	1	1	1.00
FIELD REVIEW		1	2	3	4	5	6	7	AVERAGE
Natural Communities (I.A)									
Dome Swamp	I.A.1	4	2	4	5	3	3	3	3.43
Swamp Basins	I.A.2	5	4	4	5	5	4	4	4.43
Depression Marsh/ Basin Marsh	I.A.3	2	2	3	1	3	3	2	2.29
Baygall	I.A.4	4	3	4	5	4	3	3	3.71
Mesic Flatwoods	I.A.5	4	2	2	2	3	2	2	2.43
Wet Flatwoods	I.A.6	3	2	3	1	3	3	2	2.43
Lakes/Ponds	I.A.7	5			5	5	4	3	4.40
Wet Prairie/ Ecotone	I.A.8	1	2	2	1	2	2	2	1.71
Sandhill	I.A.9	2	2	1	1	2	2	2	1.71
Scrub	I.A.10	1		1	1	2	2	2	1.50
Scrubby Flatwoods	I.A.11	4		1	1	2	2	2	2.00
Hydric Hammock	I.A.12	5		X	5	5	5	3	4.60
Listed species:Protection & Preservation (I.B)									
Animal Inventory	I.B.1	3	3	2	1	3	4	2	2.57
Gopher Tortoise	I.B.1.a	3	3		2	3	4	3	3.00
Plant Inventory	I.B.2	4	3	3	2	3	4	2	3.00
Rugel's Pawpaw	I.B.2.a	4	3	3	1	4	4	3	3.14
Natural Resources Survey/Management Resources (I.C)									
Game wildlife / habitat monitoring	I.C.1	2	3	2	3	5	2	2	2.71
Listed species / habitat monitoring	I.C.3	4	3	2	2	3	3	2	2.71
Other non-game species / habitat monitoring	I.C.4	3	3	3	3	X	2	3	2.83
Fire effects monitoring	I.C.5	5							5.00
Other habitat management effects monitoring	I.C.6		3		3	3	3	3	3.00
Invasive species survey / monitoring	I.C.7	4	4	3	4	3		3	3.50
Cultural Resources (Archeological & Historic sites) (II.A,II.B)									
Cultural Res. Survey	II.A	4	3	3	4	5	5	3	3.86
Protection and preservation	II.B	5	3	3	4	5	4	4	4.00

Resource Management, Prescribed Fire (III.A)									
Area Being Burned (no. acres)	III.A.1	2	1	3	1	3	2	2	2.00
Frequency	III.A.2	2	1	2	1	3	2	2	1.86
Quality	III.A.3	2	3	2	1	3	2	3	2.29
Restoration of Ruderal Areas (III.B)									
Scrub Restoration	III.B.1	4	3	3	4	2	3	2	3.00
Wildfire Firelines Restoration	III.B.2	3	2	2	3	5	4	3	3.14
Non-Native, Invasive & Problem Species (III.E)									
Prevention									
prevention - plants	III.C.1.a	4	4		5	3	3	3	3.67
prevention - animals	III.C.1.b	5	4		5	3	4	3	4.00
prevention - pests/pathogens	III.C.1.c		4	3	4	5	5	3	4.00
Control									
control - plants	III.C.2.a	4	4	3	4	4	4	3	3.71
control - animals	III.C.2.b	5	4	3	5	4	4	3	4.00
control - pest/pathogens	III.C.2.c		4	3	4	4	4	3	3.67
Hydrologic/Geologic function Hydro-Alteration (III.E.1)									
Roads/culverts	III.D.1.a	4		3	2		4	3	3.20
Ditches	III.D.1.b	4		3	2		3	3	3.00
Hydro-period Alteration	III.D.1.c			3	3		4	3	3.25
Water Level Alteration	III.D.1.d			3	3		4	3	3.25
Dams, Reservoirs or other impoundments	III.D.1.e	5		3	3		4	3	3.60
Ground Water Monitoring (III.E.2)									
Ground water quality	III.D.2.a	5	3	3	3		3	3	3.33
Ground water quantity	III.D.2.b	5	3	3	3		3	3	3.33
Surface Water Monitoring (III.E.3)									
Surface water quality	III.D.3.a		3	3	2		3	3	2.80
Surface water quantity	III.D.3.b	5	3	3	2		3	3	3.17
Resource Protection (III.F)									
Boundary survey	III.E.1	5	3	4	5	5	5	4	4.43
Gates & fencing	III.E.2	5	3	4	4	5	5	4	4.29
Signage	III.E.3	5	3	4	5	5	5	4	4.43
Law enforcement presence	III.E.4	3	2	3	2	2	2	2	2.29
Adjacent Property Concerns (III.G)									
Land Use									
Expanding development	III.F.1.a	5	3	4	4	5	3	3	3.86
Well Fields	III.F.1.b	4	4		4	4	3	3	3.67
Inholdings/additions	III.F.2			4	4		3	3	3.50
Public Access & Education									
Public Access									
Roads	IV.1.a	5	4	3	3	5	4	3	3.86
Parking	IV.1.b	5	4	3	4	5	4	3	4.00
Environmental Education & Outreach									

Wildlife	IV.2.a	4	3	3	4	5	3	3	3.57
Invasive Species	IV.2.b	3	3	4	1	5	2	3	3.00
Habitat Management Activities	IV.2.c	4	3	3	1	5	3	3	3.14
Interpretive facilities and signs	IV.3	5	4	3	4	5	2	4	3.86
Recreational Opportunities	IV.4	5	4	3	4	5	4	3	4.00
Management of Visitor Impacts	IV.5	5	3	3	4	5	4	4	4.00
Management Resources									
Maintenance									
Waste disposal	V.1.a	5	4	3	4	5	4	3	4.00
Sanitary facilities	V.1.b	5	4	3	4	5	4	3	4.00
Infrastructure									
Buildings	V.2.a	4	3	3	4	5	4	2	3.57
Equipment	V.2.b	3	3	3	3	5	4	2	3.29
Staff	V.3	1	1	2	1	1	3	2	1.57
Funding	V.4	1	1	2	2	1	2	2	1.57

APPENDIX B:

I.A. Natural Communities

- Plan severely needs an update.
- Mesic flatwoods on south part of US92 needs to be burned and thinned due to its poor condition. Sandhill, scrub and scrubby flatwoods has been recently burned so they are just beginning to restore.
- Goals and objectives in management prescriptions for scrub restoration need to be included in an updated management plan. More detailed information on flatwoods management requested. When to complete prescribed burns, how to determine timber management, what to thin and how to prep the site etc. distinguish between pine plantations, natural flatwoods within management plan. Discussion of remaining pines from depression marshes should be addressed. Consider reductions in pine basal areas to 30-50 square feet/acre to further create early successional habitat, which can be maintained with actions like prescribed fires, mowing, etc.
- Artificial abundance of pine poses the largest obstacle to reaching target communities and use of typical management goals. There are a lot of areas mapped as wet flatwoods that should be wet prairie.
- This 1998 management plan needs to be updated to reflect newly mapped and described natural community types. Work on reducing the amount of pine canopy in the wetland ecotones and depression marshes. Timber densities and fuel buildup are high and have prevented the burning necessary to restore the native groundcover and reduce wildfire potential. Thinning to basal areas in the range of 30-60 may be necessary in flatwoods areas to permit burning and/or any mechanical treatments necessary to augment burning. Fuels in much of the wet and mesic flatwoods still need fire treatment. In the last five years, only 20% of flatwoods have been burned. Wildfires have been a major event for this area, impacting pine stands by reestablishing large expanses of young even aged plantations of slash and longleaf pine that have yet to be burned. Hardwood and herbaceous growth has grown profusely in these areas. In some areas south of SR92 prescribed fire may have to wait until after an initial row thin in four to five years. A plan or scope of work should be developed for this area in the forest. Off site slash pine planted in the sandhill will have to be removed when merchantable and eventually replanted to longleaf pine. More burning and maybe even some herbicide work may be necessary to reduce oaks and restore sandhill groundcover. Much of the 800 acres of scrub has a young, but very thick stand of young sand pine throughout. Roller chopping, precommercial harvests and mowing will be required to get this area under management. Restoration strategies should be benchmarked against what's being done at other public lands in Volusia and Lake counties (i.e. Blue Springs SP, Seminole SF). Encourage assessing fire management and silviculture activities and prescriptions in wetland ecotones (wet prairies) to minimize equipment damage, reduce pine and hardwood densities and increase prescribed fire occurrence in these dry to wet transition zones. More information is needed in the plan to address extent of planted pine in the mesic and wet flatwoods as it relates to desired stocking, thinning strategies and fire management issues.
- Management plan needs to reflect restoration strategies that are directed to habitat restoration. There are significant negative impacts to ecotones and bay head ecotones due to pine invasion increasing the drying of wetlands through evapo-transpiration. Overall pine density is too high which is having a hydrologic impact on wetlands and the ability to use fire in ecotones with hydric soils. In general, fire management is restricted due to hydrology influence of fire usage in wetlands. Goal should be to have a BA of 30. Need for forest fuels management and ground cover management versus pine production. Ecotonal restoration should be a primary goal of the management program.

I.B. Listed Species

- Needs to be updated.
- Revised management plan needs to discuss priority wildlife species and how they will specifically be tracked either in management actions or monitoring.
- Currently habitat for tortoise is low, but progress is evident and trend appears positive. Focus on pine removal and introducing regular fire.

- Need scrub species inventory.

I.C. Natural Resources Survey/Management Resources

- Increased thinning and fuel management should increase the wildlife value.
- Refers to FWC's mission as being in charge of wildlife but needs to explain what they are doing. Very little monitoring is described in the management plan. Expand invasive species surveys on the property.
- Highlight specific ways that game species are/aren't tracked in management plan. Include songbird/bird list activities into the revised management plan. Sounds like forest staff are doing the best they can with exotic invasives and should be applauded for that.
- Need to fund for increased invasive species monitoring.
- Monitoring of wildlife eliminated. Wildlife needs more early succession habitat through fire management. Insufficient wildlife staff support to fire management.

III.A. Prescribed Fire

- Good job considering site and personnel limitations.
- Property should have more detail on burn quality and areas for burn. The entire forest on a four year burn cycle regardless of condition.
- Prescription fire frequency/acreage needs to be increased to meet multiple resource management goals.
- Due to inherited situation, field conditions cannot be scored high, but activities are appropriate.
- Droughts and large wildfires have had their impact on the burning program, however in the last five years only 20% of burnable acres have been prescribed burned.
- Insufficient staffing for the great fire management challenge. Should have a dedicated FMO and prescribed fire team to manage multiple expectations of management staff.

III.B. Restoration

- Would like to see communities map if developed (given at field review). Scrub has been recently identified, so they are just beginning the process.
- Work to draft/create guidelines and success criteria for scrub restoration. Nice to see progress towards scrub restoration.
- Target use of catastrophic fire to completely expose inorganic soils in scrub. This effort appears to be underway.
- Planning an appropriate strategy is still in process and removal of the sand pine and burning on this site has not yet begun. Overall this forest would benefit from an assessment of the silvicultural management and ecological restoration needs that would identify the most appropriate goals and strategies necessary to establish an ongoing and consistent program of restoration to the mesic and wet flatwoods and the wetland ecotones associated with the imbedded marsh systems. A comprehensive scope of work, with a prioritized and budgeted list of management actions necessary to achieve desired stand composition and more natural tree densities with a regular and frequent pattern of prescribed fires, should form the core results of this assessment and planning effort. A similar approach to address management needs and strategies in the scrub and sandhills should also prove useful.
- Tiger Bay is a restoration project. It is being restored. Pre industrial forestry site has excessive fuel build up. Habitats are seen green in surface scrub layers. Gaps need to be a higher priority. Need restoration project mapping and control live references for wildlife impacts.

III.C. Non-native, Invasive & Problem Species

- Plan needs and update as well as survey work.
- Have not seen the control plan for exotic plants.
- Identify the need for contained equipment to be washed down prior to being allowed access to the site in the management plan. Problem wildlife species are not really an issue for Tiger Bay SF.
- Good invasives control and are monitoring for bay wilt. Need improved lygodium survey. Over all good job.

III.D. Hydrologic/Geologic Function

- Need a hydrological study to be done.
- Conduct a hydrological study to identify options.

- Handled by CUP permits providing water to Ormond, Daytona Beach, Port Orange. Only the point of ensuring BMP's are met along roadways.
- Management decisions would benefit from more hydrological data collection and surface water modeling. Additional culverts and low water crossings appear to be needed at some road locations. Suggest that DOF request of SJWMD results of ongoing groundwater and surface water monitoring that would help understand trends and impacts on natural communities and aid in management decisions.
- Need hydro-restoration survey and restoration plan. Need strategies of future CUP impacts on surface hydrology. WMD needs to provide report relative to impacts on forest eco-tones.

III.E. Resource Protection

- There is a need to fill a vacant law enforcement position.
- Staff does not have adequate safety against criminal situations on a regular basis.
- Good job with the new electronic fence on north and south end of Rima Ridge. There are problems currently with adequate law enforcement due to a vacancy in the OALE officer position.

III.F. Adjacent Property Concerns

- The optimum management boundary map has been updated and submitted to Tallahassee.

IV. Public Access and Education

- The forest has shown improvement and law enforcement concern in the area of management of visitor impacts.
- Additional signage on scrub management/prescribed fire techniques would be beneficial. Further information on invasives would be good.
- Good recent improvements at Rima Ridge campground to evaluate and better define the campground loop road and at Indian Lake to provide a new prairie pavilion and interpretive information.
- Need enhanced LE capacity for illegal trespassers.

V. Infrastructure/ Management Resources

- Need more equipment to deal with fuel loading and maintenance of roadways. There is a need to hire more staff to focus on fire and Tiger Bay SF. Funding is needed to reduce fuels. Needs forest biologist assigned to the park or region.
- There is a need for bobcat/positrac to get fuel reduction work done to meet habitat goals. Park ranger position was eliminated. Currently 3 FTE positions not enough staff to meet public demands for fire suppression and to meet habitat management goals in regards to using prescription fire. There is also the need for a forest biologist to provide biological needs for the area. Staff and resources needed to meet prescription fire objectives. Additional funding focused on mechanical treatments around areas that are well managed should be encouraged to build on work that is being completed.
- Not enough staff or funding.
- Improvements are needed (and planned) for equipment storage and maintenance space. Equipment like a bobcat would be very useful in mowing fire breaks. This forest needs a field biologist position. Additional park rangers are needed to implement a more aggressive burning program. More funds are needed for mechanical treatment for restoration and pre-suppression fire lines.
- Need a bobcat mower. Need proper updated equipment for wildlife supervision impacts reflections and restoration. Insufficient staffing for fire management and restoration challenges of this site. Insufficient restoration/resource management funding. Insufficient funding for treatment needs to prep for fire management. Significant funding will be needed to prep scrub eco-tones for treatment alone.

V.I. Managed Area Uses

- A funding source should be established for hunting use on the property. A lot of money and time is put into road work for access with very little revenue input.