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# Environmental Assessment

## Ocala Fuel Reduction Mowing in the Wildland-Urban Interface

PALS No. 32162

Seminole and Lake George Ranger Districts, Ocala National Forest  
Lake, Marion and Putnam Counties, Florida

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## **INTRODUCTION**

### **Background**

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Hazardous fuel reduction projects (prescribed fire, mechanical, herbicides, grazing, or combinations) are designed to reduce the risks of catastrophic wildland fire. This project was developed to help implement the National Fire Plan on a local level by mowing to mechanically reduce hazardous fuels in the wildland-urban interface (WUI).

This project was previously developed as a categorical exclusion (PALS # 8100), and a Decision Memo was issued on July 9, 2007. About 70% of that project was implemented. On December 5, 2007 the U.S. Ninth Circuit Court of Appeals invalidated the type of categorical exclusion that was used [Hazardous Fuels Reduction Categorical Exclusion (FSH 1909.15, chapter 30, 31.2(10)]. That court decision halted all Forest Service hazardous fuels reduction projects that used this particular type of categorical exclusion.

This Environmental Assessment (EA) was prepared in order to complete, expand, and periodically maintain this important project. The analysis is tiered to other environmental documents: the Revised Land and Resource Management Plan's (LRMP) accompanying Final Environmental Impact Statement (FEIS), and the EIS for Vegetation Management in the Coastal Plain/Piedmont (VMEIS). These documents are available for review at any of the District offices or in the Forest Supervisor's office in Tallahassee, FL.

### **Purpose and Need for Action**

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**Existing Condition** - There are hazardous levels of fuels in the WUI directly adjacent to private property.

**Desired Condition** - Forestwide desired future conditions (DFCs), forestwide goals, forestwide objectives, and Forest Plan Management Area (MA) goals describe aspects of the desired condition. The following are the most relevant to this project:

- **Forestwide DFC:** An adaptive, ecological approach is used in multiple-use management by blending the needs of people with environmental values to ensure that forest ecosystems are diverse, healthy, productive, and sustainable. (LRMP, p. 2-1)
- **Forestwide DFC:** Fire plays an increased role in maintaining many upland forest ecosystems. The risk of resource-damaging wildfires is reduced due to a reduction in fuels by prescribed burning. (LRMP, p. 2-2)
- **Forestwide DFC:** Management of forest vegetation focuses on maintaining or restoring the natural range of diversity in age, species, and conditions for ecosystem health. (LRMP, p. 2-3)
- **Forestwide Goal 10:** Apply prescribed burning technology as a primary tool for restoring fire's historic role in ecosystems. (LRMP, p. 2-4)
- **Forestwide Objective 4:** Prescribe burn on average every 3 years with varied intervals on a given site to restore natural processes in all sites where the natural-fire-return interval was less than 10 years... (LRMP, p. 2-5)

This project is located within MA 7.1 Longleaf/Slash Pine, Adaptive Management, RCW Management (LRMP, p. 4-39 through 4-40), MA 7.3 Longleaf/Slash Pine, Adaptive Management, No RCW Management (LRMP, p. 4-42), and MA 8.2 Sand Pine, Mixed Regeneration, Moderate Openings (LRMP, pp. 4-46 through 4-47).

**Need** - There is a need to enhance wildland fire protection capabilities directly adjacent to certain portions of high-risk communities by creating and maintaining a "defensible space". This project is needed in those areas to reduce hazardous wildland fuel levels, and decrease the frequency of private fires escaping onto FS land. In addition, this project is needed to help facilitate prescribed burning adjacent to these communities.

## Proposed Action

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The U.S. Forest Service is proposing to mechanically reduce hazardous fuels by mowing strips of vegetation on Forest Service (FS) lands adjacent to private property. The strips to be mowed are near the communities of Altoona, Astor, Deerhaven, Eureka, Hog Valley, Lacota, Lake Delancy, Lake Kerr, Lynne, Norwalk Island, Pittman, Rodman Dam, Salt Springs, Scrambletown, Sharps Ferry, Silver Glen Springs, and Tobacco Patch Landing. The proposed project is located on the Ocala National Forest (ONF) in Lake, Marion, and Putnam counties, Florida (see map appendix A). Portions of the following FS management compartments are involved: 1-3, 5, 15, 18-20, 30-31, 34, 36-37, 40, 44, 51-52, 54, 61-62, 69-72, 90-92, 96-99, 201-202, 219-222, 263-264, 268-269 and 293.

- Mow brush and small trees less than 4 inches DBH (diameter at breast height) on FS lands within 30 to 60 foot wide strips inward from private property. A 60 foot wide strip is needed only where a high level of hazardous fuels are present (exceeding about 30 tons per acre). About 81 miles of strips (about 352 acres) would be mowed.
- Periodically re-mow to maintain strips in locations where prescribed burning is not reducing hazardous fuels to the desired level.
- Mow using a Hydro-Axe™, Kershaw Klear-Way™, ASV Positrack™ or similar equipment with a rotary or drum cutter head. Manual labor using chainsaws or hand tools may be used on rare occasions.
- Follow the design features and monitoring described below.

## Decision Framework

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Given the purpose and need, the Responsible Official will review the Proposed Action, and the No Action alternative. The decision to be made is whether to:

- Take No Action at this time - Alternative A, or
- Implement the Proposed Action - Alternative B.

## Public Involvement

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The proposal was provided to the public and other agencies in a scoping letter dated September 15, 2010. In addition, this project was listed eight times in the quarterly Schedule of Proposed Actions (April, 2010 - December, 2011). One comment letter was received, and is summarized below in the Issues section.

The 30-day notice and comment period was announced in legal notices published in the Leesburg Daily Commercial (Lake County, FL) on September 17, 2010 and in the Ocala Star Banner (Marion County, FL) on September 23, 2010. No comments were received in response to the legal notices.

## Issues

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The Responsible Official and interdisciplinary team reviewed the comments.

- A comment letter was received from a local couple who have lived in the Ocala National Forest WUI for many years. They stated that the proposed mowing: 1.) would do little to reduce the threat of wildfire, 2.) would provide only short-term benefits, 3.) would be too expensive, and 4.) would not be environmentally friendly. They further stated that prescribed burning would be more effective than mowing, and provide more ecosystem benefits.
- Response: The Forest Service agrees with many of the comments. Considering the size of the entire Ocala National Forest, the proposed mowing alone would do little to reduce the threat of wildfire. We agree that the benefits of fuel reduction mowing are short-term. We also agree that our prescribed burning program is more cost effective, and provides more ecosystem benefits, than fuel reduction mowing. However, we believe that creating and maintaining these strips of "defensible space" will help facilitate our prescribed burning program in difficult areas that have high fuel loads so that periodic mowing will not always be required. We agree that the project will not be affordable some years. However, in other years specifically designated funding may be received for mechanical fuel reduction projects such as this. The interdisciplinary team developed 17 design features and four monitoring items to insure that this project

could be accomplished in an environmentally friendly manner if the Proposed Action is selected for implementation.

No issues were identified that would require creation of an additional action alternative to resolve. Alternative A (No Action) is responsive to the concerns expressed in the comment letter and will be considered by the Responsible Official.

## **ALTERNATIVES**

### **Alternatives**

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#### **Alternative A - No Action**

This alternative would not implement the Proposed Action. However, selection of the No Action Alternative would not prevent prescribed burning of some or all of the strips during favorable weather conditions pursuant to a previous NEPA decision (Prescribed Burning on the Ocala National Forest, 10/2006).

#### **Alternative B - The Proposed Action**

The Proposed Action is described above. All quantities are estimates based on preliminary measurements. Actual quantities would be determined during project layout.

No other alternatives were developed. Forest Plan Standards and Guidelines (S&Gs), project design features, and monitoring were able to resolve potential conflicts.

### **Design Features and Monitoring**

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Seventeen design features, and three monitoring items were developed for the Proposed Action. Similar measures have proven to be effective in mitigating adverse impacts to within acceptable levels on similar projects and within similar environmental settings.

#### **Design Features**

1. To avoid soil disturbance no chipping or mulching would take place.
2. Vegetation would be mowed to a stump height of 5 to 7 inches without causing soil disturbance.
3. Standing dead trees (snags) greater than 6 inches in diameter would be left standing.
4. To minimize the potential for introduction and spread of non-native invasive species (NNIS) such as cogon grass, Japanese climbing fern, and Japanese mimosa, all equipment would be washed before entering the Ocala NF. If new NNIS spots are located during mowing, they would be avoided, documented, and reported to the contract inspector.
5. No mowing would take place in wetlands (swamps, prairies, marshes, or near open water).
6. Sinkholes (wet or dry) would be avoided, leaving a 75-foot buffer from the edge of the slope.
7. To reduce the potential for rutting, treatment would occur during drier time periods, and areas of sensitive soils would be avoided.
8. Trees marked as blaze trees for trails would not be mowed.
9. Survey monuments, road signs, designated trails, numbered roads, ditches, fences, and other improvements would be protected.
10. Numbered roads and adjacent private property would be kept free from logs, slash, and debris.
11. Unauthorized roads and trails would not be protected or left open.
12. Care would be taken to not create new unauthorized roads or trails.
13. Equipment operators would be educated in gopher tortoise burrow identification, and would maintain a 25 foot buffer distance away during mowing operations. When mowing thick areas of hardwood and sand pine brush where several stems are mowed at once, the mowing height would be raised to above 8 inches to prevent killing gopher tortoises.

14. To reduce the potential for adversely affecting eastern indigo snakes, equipment operators would be educated on their identification and protected status.
15. Special timing requirements would be followed in areas near bald eagle nesting. Mowing would be delayed near active nests (or newly discovered nests) until after the breeding season or the nest has fledged young. If nests are inactive and considered alternate, mowing treatment would proceed even during breeding season since all nests lie further than the 330-foot buffer distance as recommended in National Bald Eagle Management Guidelines (2007) for Category C (Timber Operations and Forestry) Practices. Four nests are currently located within 660 feet of the proposed mowing (LA-013, MR-017, MR-105, and PU-117).
16. Personnel and equipment would be removed immediately if an active bear den is encountered.
17. No adverse effects on heritage resources are anticipated, because mowing vegetation would not cause ground disturbance and all known or encountered above ground archeological resources would be avoided. However, if heritage resources are encountered, activities would be halted and heritage program personnel would be notified immediately.

## Monitoring

The purpose of monitoring implementation would be to validate the success of the design features and answer the following questions:

1. **Are water, wetlands, and floodplains adequately protected?** - Resource specialists would monitor the effects of treatments near ponds or wetlands.
2. **Are unauthorized access routes being created by the public?** - Resource specialists would monitor mowed strips to ensure that new unauthorized access routes are not being created.
3. **Are new NNIS spots being created?** - Resource specialists would monitor mowed strips to ensure that no new NNIS spots are being created. If new spots are located they would be documented and treated pursuant to a previous project decision.
4. **Are heritage resources avoided and protected?** - The Ocala Archeologist would work closely with the Fire Management staff and other equipment operators on the forest to insure that there would be no adverse consequences on heritage consequences.

## Comparison of Alternatives

<b>Activity or Output</b>	<b>No Action</b>	<b>Proposed Action</b>
Hazardous fuel reduction mowing up to 60 ft. wide strips along private property in pine flatwoods	0	Up to 15.9 mi. (115.7 ac.)
Hazardous fuel reduction mowing up to 30 ft. wide strips along private property in sand pine scrub	0	Up to 32.2 mi. (117.1 ac.)
Hazardous fuel reduction mowing up to 30 ft. wide strips along private property in longleaf pine sandhill	0	Up to 32.8 mi. (119.2 ac.)
Total hazardous fuel reduction mowing	0	Up to 80.9 mi. (352 ac.)
Periodically re-mow to maintain strips in locations where prescribed burning is not reducing hazardous fuels to the desired level.	0	Up to 80.9 mi. (352 ac.)
Create early successional habitat	0	Up to 80.9 mi. (352 ac.)
Help achieve forestwide desired future conditions	No	Yes
Help achieve forestwide goals	No	Yes
Help achieve forestwide objectives	No	Yes

<b>Criteria</b>	<b>No Action</b>	<b>Proposed Action</b>
Affect public health and safety?	Yes - No actions would take place to reduce hazardous fuels adjacent to high risk communities.	Yes - Project would increase public health and safety by reducing hazardous fuels adjacent to high risk communities.
Unique characteristics?	No - No actions would take place which could affect unique characteristics.	No - S&Gs, project design features, and monitoring items provide protection.
Effects likely to be highly controversial?	No	No - Effects from treatments are similar to other projects and are not controversial.

<b>Table 2. Summary of Significance Criteria to Support a FONSI</b>		
<b>Criteria</b>	<b>No Action</b>	<b>Proposed Action</b>
Effects highly uncertain or involve unique or unknown risks?	No	No - The effects of the project are similar to those of previous projects.
Precedent established for future actions?	No - Future projects would be analyzed on their own merit.	No - The Proposed Action is consistent with the Forest Plan and does not establish a precedent.
Cumulatively significant?	No	No
Loss or destruction of significant scientific, cultural or historical resources? (NHPA consistency)	No	No - S&Gs, project design features, and monitoring items provide protection.
Adversely affect T&E species or habitat? (ESA consistency)	No	No - S&Gs, project design features, and monitoring items provide protection. USFWS has concurred with the effects determination of the Biological Assessment, and project is in accord with the USFWS Biological Opinion on the LRMP.
Consistent with Federal, State or local laws for the protection of the environment? (National Forest Management Act, Clean Water Act, Clean Air Act, and Coastal Zone Management Act)	Yes	Yes - Forest Plan consistency determined. S&Gs, project design features, and monitoring items provide protection. Best Management Practices assure Clean Water Act consistency.
Beneficial and adverse effects	No potential for beneficial effects. Potential for adverse effects has not been reduced or eliminated.	Both beneficial and potential adverse effects are disclosed. Potential adverse effects have been avoided by S&Gs, project design features, and monitoring items.

## **ENVIRONMENTAL CONSEQUENCES**

Over the last 10 years resource activities within the analysis area have included: hurricane salvage, timber harvesting, prescribed burning, site preparation, sand pine reforestation, scrub oak regeneration, road reconstruction and maintenance, road designation, road closures, maintenance of non-motorized trails, and establishment and maintenance of motorized trails. The alternatives were considered for their potential to directly and/or indirectly affect resources. Direct effects occur at the same time and place as an action. Indirect effects occur at a later time and/or at a different location. The cumulative effects analysis evaluated direct and indirect effects that may overlap with the effects of other projects. This EA, as well as the Biological Assessment, and Biological Evaluation were based on a review of relevant scientific information in order to consider the best available science. This section summarizes the anticipated effects. Additional information and analysis is included in the project file.

### **Physical Components \_\_\_\_\_**

#### **Air, Soil, and Water**

##### **Affected Environment**

Air quality in the forest is affected slightly by industry, automobile use, weather, and smoke from prescribed fire, wildfire, and debris burning by forest residents. The Forest Service works with state and federal regulatory agencies to assure a level of air quality that is adequate to promote public enjoyment of forest resources and to achieve the desired future conditions of forest resources. Air quality is further described in the Forest Plan FEIS (pp. 3-5 and 3-6), and in the National Forests in Florida 2009 Annual Monitoring and Evaluation Report (2009 Monitoring Report).

Soils are described in the Forest Plan FEIS (p. 3-6).

All streams and lakes on the ONF that have been monitored meet State and Federal water quality standards. They are usually clear, very soft, acidic, and low in phosphorus. The ONF is bounded by the St. Johns and Ocklawaha rivers

and has over 600 lakes and ponds. Sinkhole ponds are common. Most of the areas in this analysis are far from water. Water is described in the FEIS (pp. 3-7 through 3-15).

### Effects of No Action - Alternative A

Without any actions no impacts on air quality, soils, or water quality are anticipated.

### Effects of the Proposed Action - Alternative B

Air quality would be temporarily reduced in the immediate vicinity of mowing equipment. During dry weather conditions these activities would further reduce air quality by increasing dust. Dust generated during these activities may be present briefly at each site. Air quality standards would be met.

Soil productivity is maintained by minimizing erosion, compaction, and rutting.

Since all soil disturbances would be avoided, no erosion into streams or lakes is likely. Water resources are protected in a variety of ways by Best Management Practices and S&Gs: FI-8, WA-1, and WA-2. In addition, resource specialists would monitor the effects of treatments near ponds or wetlands (monitoring item 1).

Fuel reduction mowing would not cause ground disturbance.

Similar past projects have shown that no adverse effects on air, soil, and water quality are likely to take place. Based on many years of experience with similar actions on similar soils, no adverse effects on soils are anticipated. No permanent impairment of site productivity is expected.

## Biological Components \_\_\_\_\_

### Plant Communities

#### Affected Environment

The affected plant communities (pine flatwoods, sand pine scrub, and longleaf pine sandhill) are described in the FEIS (pp. 3-15 through 3-66). Table 3 describes the extent of this project within these plant communities.

	<b>Length</b>	<b>Width</b>	<b>Area</b>
Pine Flatwoods	15.9 mi.	Up to 60 ft.	115.7 ac.
Sand Pine Scrub	32.2 mi.	30 ft.	117.1 ac.
Longleaf Pine Sandhill	32.8 mi.	30 ft.	119.2 ac.
<b>Totals</b>	<b>80.9 mi.</b>		<b>352 ac.</b>

### Effects of No Action - Alternative A

Plant composition would not change, except slowly by natural community succession. The result would be overgrown, shrubby strips with high fuel hazard.

### Effects of the Proposed Action - Alternative B

Plant composition would change little as small trees and shrubs are set back, and the resulting open conditions favor more herbaceous plants.

The potential for introduction and spread of non-native invasive species (NNIS) would be minimized by design feature 4.

Wetlands and floodplains would be protected by design feature 5, and S&G WA-1 that requires compliance with Florida's Silviculture Best Management Practices. Resource specialists would monitor the effects of treatments near water or wetlands (monitoring item 1).

## **Threatened, Endangered, and Sensitive Plants**

### **Affected Environment**

The affected environment is described in the Biological Assessment for the Revised Land and Resource Management Plan (FEIS, Appendix F), and in the Biological Assessment (BA) and Biological Evaluation (BE) for this project.

### **Effects of No Action - Alternative A**

For sensitive species the BE determined that the No Action alternative would have **no impact** on the 43 sensitive plant species listed in BE Tables 2-4.

For federally listed species the BA determined that this alternative would have **no effect** on Florida Bonamia, Scrub Buckwheat, Lewton's Polygala, and Britton's Beargrass.

### **Effects of the Proposed Action - Alternative B**

For sensitive species the BE determined that the Proposed Action **may impact individuals, but would not be likely to cause a trend to federal listing or a loss of viability** for the 43 sensitive plant species listed in BE Tables 2-4.

For federally listed species the BA determined that this alternative would **not be likely to adversely affect** Florida Bonamia, Scrub Buckwheat, Lewton's Polygala, and Britton's Beargrass.

Based on years of experience with similar actions, no significant adverse effects are anticipated. U.S. Fish and Wildlife Service concurred with the effects determinations.

## **Wildlife Communities and Habitat**

### **Affected Environment**

The ONF operates under ecosystem management guidelines as prescribed in the National Forest Management Act (NFMA), Endangered Species Act (ESA), and the LRMP for the National Forests in Florida. NFMA mandates that the U. S. Forest Service provide for and maintain a diversity of plant and animal communities and manage habitat to maintain viable populations of vertebrate wildlife, and that all management prescriptions minimize serious or long-lasting hazards from wildfire. ESA mandates federal agencies to conserve endangered and threatened species and to implement recovery plans for listed species, while it also prohibits the take of listed species.

### **Effects of No Action - Alternative A**

The No Action alternative would maintain current conditions.

### **Effects of the Proposed Action - Alternative B**

The Proposed Action would provide strips of young sprouting vegetation available to wildlife briefly until the areas are prescribe burned.

## Threatened, Endangered, and Sensitive Wildlife

### Affected Environment

The affected environment is described in the Biological Assessment for the Revised Land and Resource Management Plan (FEIS, Appendix F), and in the BA and BE for this project.

### Effects of No Action - Alternative A

For sensitive species the BE determined that the No Action alternative would have **no impact** on the Florida Mouse, Sherman's Fox Squirrel, Florida Black Bear, Gopher Tortoise, Florida Pine Snake, Scrub Lizard, Short-Tailed Snake, and Striped Newt.

For federally listed species the BA determined that this alternative would have **no effect** on the Florida Scrub-Jay, Red-cockaded Woodpecker, Eastern Indigo Snake, and Sand Skink; and would have **no impact** on the Bald Eagle.

### Effects of the Proposed Action - Alternative B

For sensitive species the BE determined the Proposed Action would have a **beneficial impact** on the Florida Mouse and the Sherman's Fox Squirrel; and **may impact individuals but would not be likely to cause a trend to federal listing or a loss of viability** for the Florida Black Bear, Gopher Tortoise, Florida Pine Snake, Scrub Lizard, Short-Tailed Snake, and Striped Newt.

For federally listed species the BA determined that this alternative would **not be likely to adversely affect** the Florida scrub-jay, Red-cockaded Woodpecker, Eastern Indigo Snake, Sand Skink, Florida Bonamia, Scrub Buckwheat, Lewton's Polygala, and Britton's Beargrass; and **may impact individuals or habitat, but would not be likely to result in a trend towards Federal listing or cause a loss of viability** for the Bald Eagle.

Design features 13, 14, 15 and 16 provide protection to wildlife. Based on many years of experience with similar actions, no significant adverse effects on wildlife or fisheries are anticipated. U.S. Fish and Wildlife Service concurred with the effects determinations.

## Socioeconomic Components \_\_\_\_\_

### Economics

#### Affected Environment

The socioeconomic environment is described in the FEIS (pp. 3-189 through 3-225).

#### Effects of No Action - Alternative A

No revenues or costs are associated with the No Action alternative. This alternative would not measurably change employment, income or population in and around the ONF. No effects on the socioeconomic environment are anticipated.

#### Effects of the Proposed Action - Alternative B

Based on similar previous projects, the total cost is estimated between \$40,480 (\$115/ac.) and \$52,800 (\$150/ac.).

The Proposed Action would not measurably change employment, income or population in and around the ONF. Based on experience with similar actions, no adverse effects on the socioeconomic environment are anticipated.

## **Recreation, Scenery, and Safety**

### **Affected Environment**

The affected environment is described in the FEIS (pp. 3-133 through 3-143, and pp. 154 through 3-160).

The visual quality of the ONF meets LRMP standards. A variety of ecosystems are seen, but the dominant one is the sand pine scrub. All seral stages are viewed from roads or trails. This provides opportunities to view a variety of landscapes and wildlife. Driving for sightseeing is popular on the Ocala NF and complaints related to visual quality are very rare.

The visual quality of the ONF was temporarily reduced by the hurricanes in 2004. Timber salvage and reforestation activities have improved the scenery of the most severely damaged stands. Many stands were only partially damaged by the hurricanes, and will remain visible for many years. Visible damage from wind and fire is part of the character of disturbance ecosystems such as the scrub.

### **Effects of No Action - Alternative A**

Camping, hiking, driving for sightseeing, wildlife viewing, hunting and fishing opportunities would not be adversely affected. The current scenery would remain, but live healthy trees would age with time until natural events (insects, disease, wind, fire, or succession) alter the situation. No effects on fishing are anticipated.

### **Effects of the Proposed Action - Alternative B**

Recreation and scenic resources are protected in a variety of ways by S&Gs: FI-10, FI-11, IN-2, RE-2, VG-15, and VG-32.

Activities such as mowing, tractor operations, chainsaws, and use of hand tools during this project could cause temporary annoyance to forest residents and forest users in the vicinity. As referenced in the design features and monitoring section, design features 2, 3, and 13 would have a temporary affect on the Recreational use and scenery in these areas.

## **Heritage Resources**

### **Affected Environment**

Heritage resources are described in the FEIS (pp. 3-101 through 3-105).

### **Effects of No Action - Alternative A**

Without any actions no impacts on heritage resources are anticipated.

### **Effects of the Proposed Action - Alternative B**

The Proposed Action would have no adverse effects on known heritage resources, because fuel reduction mowing would not cause ground disturbance. All known or encountered above ground archeological resources, such as burial mounds or historical structures, would be designated for complete avoidance. However, if heritage resources are

encountered, activities would be halted and heritage program personnel would be notified immediately. Design feature 17 was developed to protect heritage resources.

The Ocala Archeologist has reviewed and approved these non-ground disturbing activities. This report was also reviewed by the Seminole Tribe of Florida's Tribal Historic Preservation Office (STOP-THPO) and there were no negative objections to this project.

### **Environmental Justice and Civil Rights**

The proposed action was assessed to determine whether it would disproportionately impact minority or low-income populations (in accordance with Executive Order 12898) from environmental and health hazards. It generally applies to actions that could cause soil, water or air pollution or actions concerning hazardous or animal waste disposal, or chemical application and storage. Proposed actions for this project would not cause or propose any of these. The percent of minority and low-income populations in Marion County (11.8 and 13.6 percent, respectively) and Lake County (9.8 and 10.4 percent, respectively) is less than or similar to the State of Florida (16 and 11.7 percent, respectively) based on 2000 census data. This demographic information indicates that this county does not qualify as an environmental justice community. Therefore, no further analysis is required.

### **Short-term Uses versus Long-term Productivity**

The short-term uses (actions) of the Proposed Action would sustain or increase long-term ecosystem productivity.

### **Irreversible and Irretrievable Commitment of Resources**

The No Action alternative would result in a lost opportunity to increase public safety. While this would be an irretrievable commitment (lost for a period of time), it would not be irreversible (one-way) since future projects could propose mowing.

The Proposed Action would result in reduced hazardous fuel levels by mowing vegetation directly adjacent to high-risk communities. This would provide a better chance of defending these communities from wildland fires, and make prescribed burning these areas safer. While this alternative would result in an irretrievable commitment of resources (lost for a period of time), it would not be irreversible (one-way) since much of the vegetation may re-sprout after treatment.

## Cumulative Effects

These tables summarize cumulative effects (as discussed in Environmental Effects section) from proposed activities in the proposed alternative that could cause effects when viewed over a larger space and time.

Table 9. Contribution of Effects from the Proposed Action										
Treatment	Net Resource Effects Using Forest Plan Standards and Guidelines, and Project Design Features									
	Air	Soil	Water	Vegetation	TES Plants	Wildlife	TES Wildlife	Economics	Recreation and Scenery	Heritage
Mowing	0	0	0	- and +	- and +	+	+	- and +	+	0
0 No Effect, - Adverse Effect, + Beneficial Effect,										

Table 10. Effects of Past, Present, and Reasonably Foreseeable Actions and Disturbances										
Actions and Disturbances	Estimate of Effects with Spatial and Temporal Overlap with the Proposed Action									
	Air	Soil	Water	Vegetation	TES Plants	Wildlife	TES Wildlife	Economics	Recreation and Scenery	Heritage
Adverse Projects on Private Lands *	0	0	0	0	0	0	0	0	0	0
Projects on State and County Lands**	0	0	0	- and +	- and +	+	+	- and +	+	0
Summary of Effects of other Actions	0	0	0	Mixed	Mixed	+	+	Mixed	+	0
0 No Effect, - Adverse Effect, + Beneficial Effect										

\* urban-wildland interface mowing done on private lands

\*\* Greenways projects and St. Johns Water management District projects

One aspect of cumulative effects is the potential for direct and indirect effects of the separate actions of the Proposed Action to incrementally accumulate on a particular resource. By comparing the potential for proposed actions effects to accumulate (Table 9) with the possible effects from past, present, and reasonably foreseeable actions and disturbances (Table 10), it is to assess how each resource in the project area may be affected by proposed actions in a cumulative way.

This type of analysis shows no cumulative effects for soil, water, air, and heritage resources. The project would have a potential for cumulative adverse effects for vegetation, TES plants, and economics. The project would have a potential positive cumulative effect for wildlife, TES wildlife, vegetation, TES plants, recreation and scenery.

## AGENCIES AND PERSONS CONSULTED

The Forest Service consulted with the following federal, state and local agencies, tribes, organizations and individuals during the development of this environmental assessment.

### Interdisciplinary Team \_\_\_\_\_

- Frank Brandt, NEPA, ONF, NFF (Team Leader)
- Michael Drayton, Fire, ONF, NFF
- Jay Garcia, Wildlife, ONF, NFF
- Janet Hinchee, Silviculture, ONF, NFF
- Carrie Sekerak, Wildlife, ONF, NFF

- Ray Willis, Archeology, ONF, NFF
- Jonathan Lampley, Silviculture, ONF, NFF

### **Federal, State, and Local Agencies** \_\_\_\_\_

- FL DEP, Div. of Recreation and Parks
- FL DEP, FL State Clearinghouse
- FL Fish and Wildlife Conservation Commission
- Lake County Board of Commissioners
- Marion County Board of Commissioners
- Putnam County Board of Commissioners
- U.S. EPA
- USDI, Fish and Wildlife Service

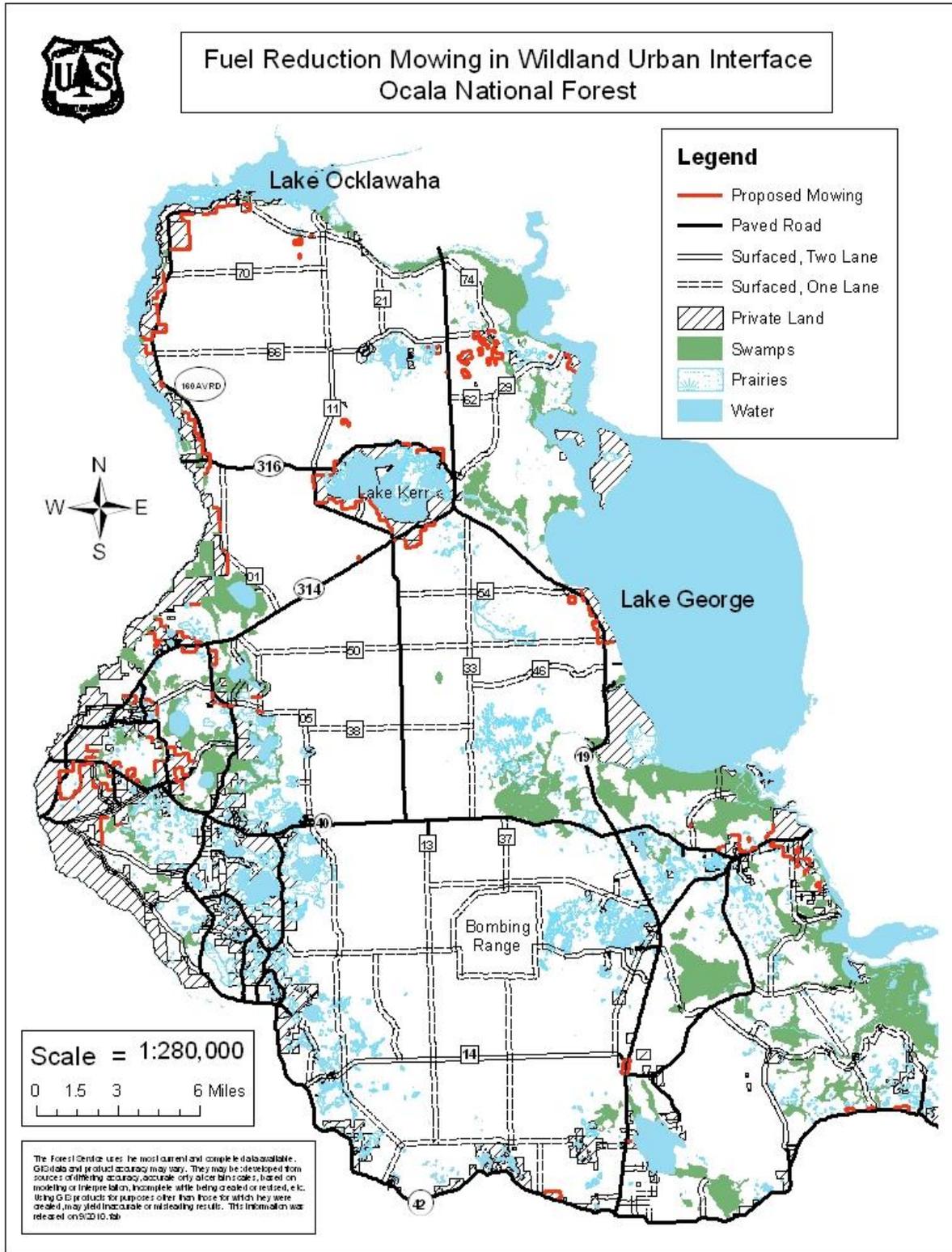
### **Tribes** \_\_\_\_\_

- Alabama-Quassarte Tribal Town, Wetumka, OK
- Kialegee Tribal Town of the Muscogee (Creek) Nation, Wetumka, OK
- Miccosukee Indian Tribe, Miami, FL
- Muscogee (Creek) Nation, Okmulgee, OK
- Poarch Band of Creek Indians, Atmore, AL
- Seminole Nation of Oklahoma, Wewoka, OK
- Seminole Tribe of Florida, Hollywood, FL

### **Organizations and Individuals** \_\_\_\_\_

- Ocala National Forest Interested Public Mailing List plus additional individuals that have expressed interest in prescribed burning projects.

# Appendix A



## Appendix B

### References

A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: 10-Year Strategy Implementation Plan. 2006 update.

[http://www.forestsandrangelands.gov/plan/documents/10-YearStrategyFinal\\_Dec2006.pdf](http://www.forestsandrangelands.gov/plan/documents/10-YearStrategyFinal_Dec2006.pdf)

Firewise Communities™.

<http://www.firewise.org>

Hull, Bruce, Sarah F. Ashton, Rien M. Visser, and Martha C. Monroe. 2008. Forest Management in the Interface: Amenity Resources. University of Florida, IFAS Publication # FOR 175.

<http://edis.ifas.ufl.edu/FR233>

Silviculture Best Management Practices. 2009. Florida Department of Agriculture and Consumer Services. Tallahassee, FL.

[http://www.fl-dof.com/publications/silvicultural\\_bmp\\_manual2009.pdf](http://www.fl-dof.com/publications/silvicultural_bmp_manual2009.pdf)

USDA Forest Service. 1989. Final EIS for Vegetation Management in the Coastal Plain/Piedmont. US Department of Agriculture, Forest Service, Southern Region. Atlanta, GA.

<http://www.fs.fed.us/r8/planning/documents/vegmgmt/coastal/>

USDA Forest Service. 1999. Revised Land and Resource Management Plan for the National Forests in Florida, Management Bulletin R8-MB-83A; US Department of Agriculture, Forest Service, Tallahassee, FL.

[http://www.fs.fed.us/r8/florida/projects/documents/forest\\_plan/forest\\_plan.shtml](http://www.fs.fed.us/r8/florida/projects/documents/forest_plan/forest_plan.shtml)

USDA Forest Service. 2010. 2009 Annual Monitoring and Evaluation Report National Forests in Florida. US Department of Agriculture, Forest Service, Tallahassee, FL.

[http://www.fs.fed.us/r8/florida/documents/2009\\_forest\\_monitoring.pdf](http://www.fs.fed.us/r8/florida/documents/2009_forest_monitoring.pdf)

