



MINIMUM REQUIREMENTS DECISION GUIDE WORKSHEETS

Fuel Maintenance Around Red-cockaded Woodpecker Trees on Islands within the Okefenokee Wilderness Area.

“ . . . except as necessary to meet minimum requirements for the administration of the area for the purpose of this Act...”

– The Wilderness Act, 1964

Please refer to the accompanying *MRDG Instructions* [click here](#) for filling out this guide. The spaces in the worksheets will expand as necessary as you enter your response.

Step 1: Determine if it is necessary to take action.

Description: Briefly describe the situation that may prompt action.

The refuge's CCP recognizes the importance of resource management within the wilderness to insure the health of the wilderness, preserve the wilderness character, and species richness.

Okefenokee NWR is defined as a part of the Osceola/Okefenokee primary core population for the recovery of the red-cockaded woodpecker. Currently there are approximately 45 active clusters out of a total of 90. Half the refuge's active RCW clusters are located on five islands (Billys Island, Honey Island, Bugaboo Island, Blackjack Island, and Mitchell Island). A sixth island (Number One Island) has inactive cavity trees. Through the Endangered Species Act and the Recovery Plan, the refuge is required to maintain suitable habitat for the RCW. Frequent fires are needed to maintain the habitat for this species. Fires provide open structure by reducing hardwoods and the density of the midstory pines. It also encourages grasses and forbs in the groundcover that carry less intense fire than woody shrubs and may increase nutrient cycling. Although historic conditions sent frequent fires around RCW cavity trees, the suppression of fire over the past century has shifted the landscape to more woody vegetation in the understory. This brings more exposure to intense fire when an island is burned. As the landscape is restored back to more historic conditions, through the use of prescribed and natural fire, protecting the RCW cavity trees from fire ensures minimal damage to the wilderness resource of the RCW population.

To reflect the refuge's responsibilities associated with habitat and RCW management, the following objectives and strategies were included in the refuge's CCP

Resource Objective 1. Restore, enhance, and promote the native upland communities and the associated wetlands to maintain the natural vegetation mosaic, diversity, and viability found prior to European settlement within the Greater Okefenokee Ecosystem while improving opportunities for RCW activity.

Resource Strategy 1.12. Wilderness islands will be prescribed burned using aerial ignition in the dormant season for hazardous fuel reduction and in the growing season for habitat restoration. Prescribed fire will be applied as needed to meet habitat restoration goals, generally every 2 to 6 years.

Wilderness Objective 1. Preserve the primeval character of the Okefenokee Wilderness through management and re-establishment of ecological conditions that allow maximum use of natural processes.

Wilderness Strategy 1.3. Establish guidelines as in the Fire Use Management Plan to allow maximum benefit for the wilderness resource through natural processes.

Wildlife Objective 1. Protect and maintain the threatened and endangered species populations, expanding their populations where possible, and enhancing the habitat on the refuge by working with adjacent landowners. Encourage other land managers in the area to promote appropriate habitat for threatened and endangered species to create a larger gene pool, increase opportunities for survival within the ecosystem, and restore a piece of the area's natural heritage.

Wildlife Strategy 1.4. Survey the status of RCW clusters on wilderness islands every other year during the breeding season to assess activity, suitability of cavities, and habitat conditions. Complete a summary report of conditions and recommendations.

Wildlife Strategy 1.7. Promote forest management practices designed to benefit RCWs and associated community species and facilitate growth of longleaf pine, both on the refuge and on adjacent state and private lands.

During wildland and prescribed fire operations, active RCW cavity trees and those extensively used in the past are susceptible to fire damage due to the resin that may reach the ground from resin wells produced by the birds to protect their cavities from predators. Increases in fuels around the base of the tree could increase the potential for damage due to high flame lengths, increased bole temperatures and crown scorch. A 10' radius circle clear of standing fuels around each tree is recommended in the Recovery Plan to decrease the potential for tree damage. This procedure is generally done prior to prescribed burns and high threats from wildland fires.

Access to the wilderness islands is limited. Only Billys Island is accessible by boat. The other five islands are accessible only by helicopter since the Okefenokee Wilderness Legislation stated that no new trails could be established beyond the existing trail system.

A. Describe Valid Existing Rights or Special Provisions of Wilderness Legislation

Are there valid existing rights or is there a special provision in wilderness legislation (the Wilderness Act of 1964 or subsequent wilderness laws) that allows consideration of action involving Section 4(c) uses? Cite law and section.

Yes: X **No:** **Not Applicable:**

Explain:

The Wilderness Legislation states that the current trail system can be modified slightly to reflect the changing landscape but could not be increased.

B. Describe Requirements of Other Legislation

Do other laws require action?

Yes: No: Not Applicable:

Explain:

The Endangered Species Act (1973) governs management of the Red Cockaded Woodpecker population on the refuge. It requires the protection and maintenance of the habitat associated with the preservation of that population.

C. Describe Other Guidance

Does taking action conform to and implement relevant standards and guidelines and direction contained in agency policy, unit and wilderness management plans, species recovery plans, tribal government agreements, state and local government and interagency agreements?

Yes: No: Not Applicable:

Explain:

Healthy habitats support all CCP goals;

The Red-cockaded Woodpecker Recovery Plan identifies specific habitat requirements for this species. This document addresses a critical preservation issue for current and future RCW populations.

The following are the goals of the Refuge's Fire Management Plan (FMP):

1. Protect life, property, and other resources (on and adjacent to the refuge) from unwanted fire.
2. Use fire to accomplish resource management objectives.
3. Restore fire as a natural ecological process.

From the prescribed fire section of the FMP, the need for prescribed fire for hazard reduction as well as habitat restoration was recognized soon after Okefenokee NWR was established. Natural and managed ignitions are used in combination to simulate natural fire regimes and accomplish fire and resource management objectives. These objectives include:

- Reducing hazardous fuels
- Restoring habitat
- Enhancing wildlife and plant species and populations
- Controlling species not commonly abundant in fire dependent communities
- Promoting biological diversity
- Preserving endangered species

D. Describe Options Outside of Wilderness

Can this situation be resolved by action outside of wilderness?

Yes: No: Not Applicable:

Explain:

This document addresses fuel reduction activities around individual cavity trees of an endangered species located in the wilderness area.

E. Wilderness Character

How would action contribute to the preservation of wilderness character, as described by the components listed below?

Untrammeled:

Clearing around RCW cavity trees creates a temporary human signature on the landscape.

Undeveloped:

This action requires the maintenance of helispots on the islands. Helispots have already been established using natural openings that required minimal clearing of the tree canopy. Each helispot is marked by a flat cement block. Annual maintenance is done on each helispot to maintain safe access.

Natural:

Although historic conditions sent frequent fires around RCW cavity trees, the suppression of fire over the past century has shifted the landscape to more woody vegetation in the understory. This brings more exposure to intense fire when an island is burned. As the landscape is restored to more historic conditions, through the use of prescribed and natural fire, protecting the RCW cavity trees from fire insures minimal damage to the wilderness resource of the RCW population.

Outstanding opportunities for solitude or a primitive and unconfined type of recreation:

All RCW clusters protected in this manner are outside of the areas open to the public. Flights over the swamp may impact the solitude of visitors that may be along the refuge's trail system.

Other unique components that reflect the character of this wilderness:

An essential characteristic of the Okefenokee Wilderness is the abundance and diversity of plants and wildlife. Through this activity continued progress will be made in the reestablishment of beneficial natural fire, and in turn native flora will be encouraged which will enhance the habitat for native fauna.

F. Describe Effects to the Public Purposes of Wilderness

How would action support the public purposes for wilderness (as stated in Section 4(b) of the Wilderness Act) of recreation, scenic, scientific, education, conservation, and historical use?

Explain:

This action supports continued scientific opportunities to study unaltered colonies of RCW in the wild. Actions ensure the overall conservation of the fire ecosystem in the Okefenokee NWR.

Step 1 Decision: Is it necessary to take action?

Yes: **No:** **Not Applicable:**

Explain:

This action would allow: the ability to manage fire on the landscape scale, to monitor the recovery of RCW colonies that are not manipulated through the introduction of cavity inserts and banding, and to achieve all of the goals and objectives in the CCP. The importance of fire in the maintenance of the native habitats of the southeast is well documented and if these trees were not protected by the preferred alternative, the avenues for managing fire on the refuge could be restricted by the possibility of damaging RCW nest trees.

If action is necessary, proceed to Step 2 to determine the minimum tool for action.

Step 2: Determine the minimum tool.

Description of Alternative Actions

For each alternative, describe what methods and techniques will be used, when the action will take place, where the action will take place, what mitigation measures are necessary, and the general effects to wilderness character.

Alternative # 1. Maintenance of fuel loads to create a safe area around selected RCW trees using approved motorized tools and access by helicopter.

Description:

Activity would be conducted in the year of a scheduled prescribed burn or in advance of a projected possible severe fire season. Six islands would receive treatments: Billys, Honey, Blackjack, Mitchell, Number One, and Bugaboo. This activity requires placing four employees and supplies, by helicopter on each island. On Billys, Blackjack, and Honey Islands two days are required to complete the operation, resulting in, four trips in and four trips out. The remaining three islands only require one day, resulting in two flights in and two out. Each helicopter flight is approximately 15 minutes one way. The total operation would require 36 individual helicopter flights. Each tree requires 20 minutes of work on the ground, and an average of 20 minutes walking time between trees. The fuels reduction process requires: removal of all woody stemmed plants and saw palmetto within a 10' radius of each tree; sloping any fuels back from the edge of the circle 1 to 2 feet to prevent flames reaching the tree bole; and raking up only the dead material and that cut by the weed-eaters, not disturbing the living fine fuels. There are 100 trees currently needing fuels reduction. This number may vary each year, but not significantly. Total time, spread out over a three year treatment cycle, is approximately 33 staff days on the ground in the wilderness and 9 hours of flight time.

Tools needed:

1. Three gas powered brush-cutters to clear woody stemmed vegetation. (One is for backup)
2. Three council rakes to clear 10' radius circle around each tree, and rake flaky bark off tree.
3. Water and emergency overnight duffle bag and first aid kit.

Effects:

Biological and Physical Resource

Noise from aircraft may cause disturbance to wildlife directly around the Helispot during landing, unloading, loading, and take off. These operations are conducted outside of the breeding season of the RCW. Noise from the one gas powered weed-eater per crew is limited to 1/8 mile, does not require hearing protection by the operator, and is of short duration.

Social and Experiential Resource

The noise from the helicopter, flying over 700 ft. above ground level, may disturb visitors as it flies to the island spot, interrupting their solitude. Visitor use areas are very limited and flight paths are planned to avoid those areas.

Heritage and Cultural Resource

By protecting RCW trees, natural and management ignited fire can reduce hazardous fuels and protect these resources.

Maintaining Contrast and Unimpaired Character

This alternative would improve the wilderness character by providing safe zones around selected nest trees and improve habitat and species richness through prescribed burning and Wildland Fire Use events.

Special Provisions

Prescribed burning is made possible under this alternative and supports the Endangered Species Act, the Red-cockaded Woodpecker Recovery Plan, and the National Fire Plan. Federally listed endangered wildlife would be protected.

Safety of Visitors, Personnel, and Contractors; and Work Methods

All personnel require various degrees of training to properly and safely perform their duties. The use of aircraft is an extremely hazardous operation. This type of operation would be limited, as much as possible, in order to reduce risks. Helicopter landing sites are maintained on each island for emergencies during aerial operations. Through the use of natural and prescribed wildland fire, visitor use areas are better protected from new fire starts.

Economic and Time Constraints

This alternative utilizes the use of a helicopter to deliver crews and supplies to wilderness worksites and motorized weed-eaters.

Additional Wilderness-specific Comparison Criteria

None.

Alternative # 2. Maintenance of fuel loads to create a safe area around selected RCW trees using approved motorized tools, and access by boat and helicopter.

Description:

Activity would be conducted in the year of a scheduled prescribed burn or in advance of a projected possible severe fire season. Six islands would receive treatments: Billys, Honey, Blackjack, Mitchell, Bugaboo, and Number One. One island, Billys, is accessible by boat. The remaining five, Honey, Blackjack, Mitchell, Bugaboo, and Number One, must be flown to by helicopter. Three of these would require one day to complete, resulting in, two flights in and two flights out. Blackjack and Honey Islands require two days each to complete the operations resulting in, four flights in and four flights out. Each flight is approximately 15 minutes one way. This would require 28 individual helicopter flights. Billys Island colonies, requires two days to complete the operation and would be maintained by boat with four employees, resulting in four, one hour boat trips. Billys Island walking time would be 40 minutes per tree. Each tree requires 20 minutes of work on the ground and an average of 20 minutes walking time on the remaining islands. The fuels reduction process requires: removal of all woody stemmed plants and saw palmetto within a 10' radius of each tree; sloping any fuels back from the edge of the circle 1 to 2 feet to prevent flames reaching the tree bole; and raking up only the dead material and that cut by the weed-eaters, not disturbing the living fine fuels. There are 100 trees currently needing fuels reduction. This number may vary each year, but not significantly. Total time, spread out over a three year treatment cycle, is approximately 38 staff days on the ground in the wilderness and 7 hours of flight time.

Tools needed:

1. Three gas powered brush-cutters to clear woody stemmed vegetation. (One is for backup)
2. Three council rakes to clear 10' radius circle around each tree, and rake flaky bark off tree.
3. Water and emergency overnight duffle bag and first aid kit.
4. One motor boat for Billys Islands.

Effects:

Biological and Physical Resource

Same as alternative 1 plus, noise from motorboats may cause short term disturbances to wilderness wildlife and visitors.

Social and Experiential Resource

Same as alternative 1 plus, the use and noise from motor boats may interrupt the solitude of the wilderness users experience. All possible alternatives will be utilized to avoid visitors, such as; reviewing trail assignments to determine the location of visitors and conducting operations during low visitation periods. This alternative could bring wilderness canoeists in contact with motorized equipment.

Heritage and Cultural Resource

Same as alternative 1.

Maintaining Contrast and Unimpaired Character

Same as alternative 1.

Special Provisions

Same as alternative 1.

Safety of Visitors, Personnel, and Contractors and Work Methods

Same as alternative 1. Also, wilderness canoeists and tour boats must be protected from service motor boats.

Economic and Time Constraints

This alternative utilizes the use of a helicopter and motor boats to deliver crews and supplies to wilderness worksites, and motorized weed-eaters.

Additional Wilderness-specific Comparison Criteria

None.

Alternative # 3. Maintenance of fuel loads to create a safe area around selected RCW trees using non-motorized tools and access by helicopter.

Description:

Activity would be conducted in the year of a scheduled prescribed burn or in advance of a projected possible severe fire season. Six islands would receive treatments: Billys, Honey, Blackjack, Mitchell, Bugaboo, and Number One. This activity requires placing four employees and supplies, by helicopter on each island. Billys, Blackjack, and Honey Islands require three days to complete the operation resulting in, six flights in and six out for each island. Mitchell and Bugaboo Islands require two days to complete the operation resulting in, four flights in and four out. Number One Island requires one day resulting in, two flights in and two out. Each flight is approximately 15 minutes one way. This will require 56 individual helicopter flights. Each tree requires 1 hour of work on the ground and an average of 20 minutes walking time. The fuels reduction process requires: removal of all woody stemmed plants and saw palmetto, with the swing scythe, within a 10' radius of each tree; sloping any fuels back from the edge of the circle 1 to 2 feet to prevent flames reaching the tree bole; and raking up only the dead material and that cut by the swing scythe, and not disturbing the living fine fuels. There are 100 trees currently needing fuels reduction. This number may vary each year, but not significantly. Total time, spread out over a three year treatment cycle, is approximately 60 staff days on the ground in the wilderness and 14 hours of flight time.

Tools needed:

1. Two swing scythes to clear woody stemmed vegetation.
2. Three council rakes to clear 10' radius circle around each tree, and rake flaky bark off tree.
3. Water and emergency overnight duffel bag and first aid kit.

Effects:**Biological and Physical Resource**

Same as alternative 1 but without the weedeater noise. Time spent on each island and around each tree will be extended.

Social and Experiential Resource

Same as alternative 1.

Heritage and Cultural Resource

Same as alternative 1.

Maintaining Contrast and Unimpaired Character

Same as alternative 1, plus as a result of using non motorized tools, a longer stay is necessary on islands where the public is not allowed to camp, and the extended human presence could disrupt the normal activities of resident wildlife.

Special Provisions

Same as alternative 1.

Safety of Visitors, Personnel, and Contractors and Work Methods

Same as alternative 1.

Economic and Time Constraints

This alternative utilizes the use of a helicopter to deliver crews and supplies to wilderness work-sites.

Additional Wilderness-specific Comparison Criteria

None.

Alternative # 4. Maintenance of fuel loads to create a safe area around selected RCW trees using non-motorized tools, and camping on wilderness islands, to reduce the number of helicopter flights.

Description:

Activity would be conducted in the year of a scheduled prescribed burn or in advance of a projected possible severe fire season. Six islands would receive treatments: Billys, Honey, Blackjack, Mitchell, Number One, and Bugaboo. This activity requires placing by helicopter, four employees and supplies, to camp and work on each island. Billys, Blackjack, and Honey Islands require three days to complete the operation (including setup and takedown of camp site) resulting in, three flights in and three out for each island. One flight is to deliver a sling load of camping supplies. Mitchell and Bugaboo Islands require two days to complete the operation (including setup and takedown of camp site) resulting in, three flights in and three out for each island. Number One Island would require one day resulting in, two flights in and two out. Each flight is approximately 15 minutes one way. This would require 34 individual helicopter flights. Each tree requires 1 hour of work on the ground and an average of 20 minutes walking time. This process requires removal of all woody stemmed plants and saw palmetto, with the swing scythe, within a 10' radius of each tree; slope any fuels back from the edge of the circle 1 to 2 feet to prevent flames reaching the tree bole; and raking up only the dead material and that cut by the swing scythe, not disturbing the living fine fuels. There are 100 trees currently needing fuels reduction. This number may vary each year, but not significantly. Total time, spread out over a three year treatment cycle, is approximately 65 total staff days. This total includes non-work, rest time; and 8.5 hours of flight time.

Tools needed:

1. Two swing scythes to clear woody stemmed vegetation.
2. Three council rakes to clear 10' radius circle around each tree, and rake flaky bark off tree.
3. One sling/50ft. line to deliver water, food, first aid kit, and camping gear.

Effects:**Biological and Physical Resource**

Same as alternative 1 plus overnight camping will compact vegetation and create a short term disturbance for wildlife during the work period. (Visitors are not allowed in the area where the employees would camp.)

Social and Experiential Resource

Same as alternative 1.

Heritage and Cultural Resource

Same as alternative 1.

Maintaining Contrast and Unimpaired Character

Same as alternative 1 plus as a result of using non-motorized tools, animal disturbance during the 10 hr. work period will be kept to a minimum; however, camping on islands where the public is not allowed to camp will have a short term impact of disrupting the normal activities of resident wildlife.

Special Provisions

Same as alternative 1.

Safety of Visitors, Personnel, and Contractors and Work Methods

Same as alternative 1.

Economic and Time Constraints

Same as alternative 3.

Additional Wilderness-specific Comparison Criteria

None.

Step 2: Decision What is the Minimum Tool?

The selected alternative is: Alternative # 2. Maintenance of fuel loads to create a safe area around selected RCW trees using approved motorized tools and access by boat and helicopter.

Table 1. Estimate of motorized and mechanical management activity occurring over a three year treatment cycle.

Alt.#	# of 15 minute Helicopter Flights	Total hours Helicopter Flights	# of Staff	Has Motor-boat options	Staff Days in Wilder-ness	Impact to: Untrammeled Undeveloped & Natural	Impact to: Solitude Public Use	Motorized Tools
1	36	9	4	0	33	Minor-short term	High	Yes
2	28	7	4	4	38	Minor-short term	Lowest	Yes
3	56	14	4	0	60	Minor-short term	Highest	No
4	34	8.5	4	0	65	Minor-short term	Low	No

Describe the rationale for selecting this alternative:

We select Alternative #2 because we believe it would have the least impact on wilderness values and visitors, and provide maximum employee safety. However maintenance by boat, instead of helicopter, creates a greater chance of visitor impact. Alternative # 1 increases the number of helicopter flights by 8 with no net gain in resource accomplishments. Alternative # 3 would increase the total number of helicopter flights by 28 and lengthen the stay around each tree from 20 minutes to one hour. Alternative # 4 requires the most staff days, camping on the islands, external delivery of supplies by sling, and increases the non work time of crews to disturb wildlife and wilderness solitude.

Describe any monitoring and reporting requirements:

Refuge staff complete Wilderness Logs for each entry they make into the wilderness. These logs are used by supervisors to ensure that wilderness values are considered for each entry; and to monitor for interdisciplinary coordination, consolidation of trips, etc. so the minimum number of management activities the refuge use (motorized or mechanical) occur each year.

Please check any Wilderness Act Section 4(c) uses approved in this alternative:

- Mechanical transport
- Motorized equipment
- Motor vehicles
- Motorboats
- Other: _____
- Landing of aircraft
- Aircraft over wilderness area
- Temporary road
- Structure or installation

Be sure to record and report any authorizations of Wilderness Act Section 4(c) uses according to agency procedures.

Approvals	Signature	Name	Position	Date
Prepared by:		Sara Aicher	Biologist	
Recommended:				
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