



ARTHUR CARHART NATIONAL WILDERNESS TRAINING CENTER

MINIMUM REQUIREMENTS DECISION GUIDE

WORKSHEETS

“ . . . 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 for filling out this guide.
The spaces in the worksheets will expand as necessary as you enter your response.

Step 1: Determine if any administrative action is necessary.

Description: Briefly describe the situation that may prompt action.

Deschutes and Willamette National Forest have historically suppressed naturally occurring wildfires within the Three Sisters and Mt. Washington wilderness areas. Suppression activities have been used within wilderness to reduce risk to life and property in and outside of wilderness. This suppression, while successful in some aspects, has permitted an increase in fuel loading, and has impacted the natural and untrammeled aspects of wilderness. With increased fuel loading, the two National Forests have experienced an alteration of expected wildfire size, as demonstrated with the 2003 B&B fire. In addition, fuel loading, and adjacent values at risk, have limited our ability to allow fire to play its natural role within wilderness. In response, the Deschutes and Willamette National Forests are considering using prescribed fires in wilderness to:

- Increase our capability to permit lightning-caused fires to play, as nearly as possible, their natural ecological role within wilderness
- Reduce, to an acceptable level, the risks and consequences of wildfire within selected areas of the Three Sisters and Mt. Washington wildernesses from escaping the wilderness and posing a threat to public and firefighter safety and to values adjacent to the wilderness boundary.

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Worksheets – p.1

Protection of natural resources and values outside the wilderness boundary, such as the Bend watershed, Mount Bachelor, Big Lake and any communities at risk, is a primary objective.

To determine if administrative action is necessary, answer the questions listed in A - F on the following pages.

A. Describe Options Outside of Wilderness

Is action necessary within wilderness?

Yes: No:

Explain:

There are several existing fuels treatment plans adjacent to the proposed Wilderness prescribed fire focus areas. Results from fire behavior modeling, past fire behavior, and the professional judgment of the Interdisciplinary team have all assisted in the determination that the potential treatments listed below, which are all outside of wilderness, will not produce the results necessary to meet the objectives of this proposed project.

- A. Ursus –Bend; A relatively insignificant amount of the project area boundary is adjacent to the wilderness boundary leaving little opportunity to develop fuel treatments which reduce fire behavior immediately outside the wilderness. Bearwallows Butte Inventoried Roadless Area (IRA) is positioned between the Ursus planning area and the wilderness boundary. Treatments within the IRA are limited to prescribed fire and non-commercial tree thinning. The economics of treating enough of the area within the IRA by itself, to a level that effectively reduces fire behavior and reduces the risk of wildfire spreading from the wilderness and beyond Bearwallows Butte IRA is not feasible with hazardous fuels budgets alone. Without fuels treatments on both sides of the boundary, wildfires will continue to burn unchecked across the wilderness boundary.
- B. Snow –Bend; Fuels treatments have been developed around Elk Lake which are intended to reduce rates of spread and crown fire potential around the lodge and cabins. Roadside thinning treatments along the Cascade Lakes Highway between Elk Lake and Lava Lake will temporarily slow fire spread and reduce fire behavior. However, if fire spread is primarily by spot fires these treatments alone will not slow fire spread, especially when spotting distance exceeds approximately ¼ mile. West-South Bachelor IRA is east of and adjacent to the Snow project area. Treatments within the IRA are limited to prescribed fire and non-commercial tree thinning. Prescribed fire treatments within the wilderness are recommended in conjunction with the Snow fuels treatments to reduce the probability of crown fire and associated spot fire risk in the lodgepole and mixed conifer plant associations located within the wilderness west of the Snow project area.
- C. Drink –Bend; Project area boarder’s wilderness to the NW and N of Tumalo Mtn. The Drink area is within the Bend Municipal Watershed and is mostly the Bend Watershed IRA. Fuel treatments will focus primarily on protecting drainages that feed into the Bend Municipal Water Plant. Fuel treatment methods within the IRA are limited to prescribed fire and non-commercial tree thinning. The amount of area that can be treated without increasing sediment levels in Tumalo Creek is significantly limited and the economics of

treating enough of the area within the IRA by itself, to a level that effectively reduces fire behavior and the risk of wildfire spreading outside the wilderness is not feasible with hazardous fuels budgets alone.

- D. Big Lake/Hoodoo Road Corridor and Campground Hazardous Fuels Reduction: a roadside fuels reduction project along the Big Lake/Hoodoo access road off of Highway 20/126. This project would increase safety and improve the primary escape route for recreational users and cabin owners in the event of a wildfire. This improved access route would promote safer wildfire suppression efforts and create a less hazardous environment for suppression resources and the public.
- E. Big Hoodoo Project: A proposed project which will analyze approximately 2500 acres in and around the Hoodoo recreation area along the Santiam Pass, three miles NW of Mt. Washington Wilderness to reduce dead and downed trees. Recently mountain pine beetle has caused severe mortality and high stocking levels especially with fire suppression. This project will expand upon the Road Corridor Project using biomass removal, mastication, thinning with gaps and/or prescribed fire.

As discussed above, the potential treatments listed above, which are all outside of wilderness, will not produce the results necessary to meet the objectives of this proposed project. Modeling indicates that, under current fuel conditions, even if the forests had the resources and ability to treat the large areas adjacent to the wilderness boundaries, a large fire would still pose a significant risk to values outside of wilderness. Fuel treatments are designed to reduce fire behavior and/or fire spread, thus providing more management and suppression options for fire fighters. However, the scale of the treatment areas outside of the two wilderness areas prohibit effective treatments due to the sheer size of the treatment area and the resources required to do such treatments. For example, past experience with large fires in the Cascade Crest area have demonstrated that fire can grow rapidly and spread several miles in any direction. These fires often form large columns and have spotting distances greater than half a mile. With this being the case, fire management would have to treat huge swaths of land in order to mitigate the dangers of fire posing serious risk to values outside of wilderness. In addition, due to the sheer size of treatment areas, treatments outside of wilderness would likely take decades to complete, thus eliminating our ability to achieve project objectives within an acceptable timeframe.

In the effort to examine possible alternatives a team of fire experts utilized the computer programs FARSITE and FLAMMAP to model the effectiveness of treatment outside of the wilderness to successfully contain a fire inside of the wilderness. The modeling effort was a two stage process. The first stage models treatment outside of the wilderness. The effects of treatment are then modeled with a lightning strike during peak fire conditions within the wilderness. The modeling demonstrated that treatments outside of wilderness and within IRA would not reduce the risk of fire leaving the wilderness and/or threatening values at risk.

These results show that further treatment outside of the wilderness will not be effective in containing a fire, which would result in suppression activities in wilderness to protect resources and values outside of the wilderness. Due to the location of values at risk (within close proximity to the wilderness boundary), type of fire behavior, and limited lack of viable options outside of the wilderness it has been determined that administrative action is necessary within wilderness to meet the stated objectives.

As an example, one potential area of treatment identified is within the Mt. Washington North IRA, which is adjacent to wilderness and within the project area on the Willamette National Forest. Treatments in this IRA would likely include mechanical thinning or removal of trees and dead fuels prior to prescribe fire. A working group of fire experts have determined that strategic placement of treatments in this IRA could provide some opportunities to protect property, allow evacuation and reduce risks to fire fighters. In event of a high severity fire during peak fire season these treatments will not create a sufficient buffer for fires escaping the wilderness resulting in a threat to the Big Lake Youth Camp and the recreation sites around Big Lake. The team also determined that point protection outside of the wilderness in this area would not meet the objectives because it would not reduce the risk of wildfire leaving the wilderness and therefore it would not allow fire to play its natural role.

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

Is action necessary to satisfy valid existing rights or a special provision in wilderness legislation (the Wilderness Act of 1964 or subsequent wilderness laws) that allows consideration of the Section 4(c) prohibited uses? Cite law and section.

Yes: No: Not Applicable:

There are currently no special provisions within the Mt. Washington or the Three Sisters Wilderness areas.

C. Describe Requirements of Other Legislation

Is action necessary to meet the requirements of other laws?

Yes: No: Not Applicable:

D. Describe Other Guidance

Is action (Rx Fire in Wz) necessary to conform to direction contained in agency policy, unit and wilderness management plans, species recovery plans, or agreements with tribal, state and local governments or other federal agencies?

Yes: No: Not Applicable:

FSM 2324.2 - Management of Fire

2324.21 - Objectives

The objectives of fire management in wilderness are to:

1. Permit lightning caused fires to play, as nearly as possible, their natural ecological role within wilderness.
2. Reduce, to an acceptable level, the risks and consequences of wildfire within wilderness or escaping from wilderness.

E. Wilderness Character

Is action necessary to preserve one or more of the qualities of wilderness character including: untrammeled, undeveloped, natural, outstanding opportunities for solitude or a primitive and unconfined type of recreation, or unique components that reflect the character of this wilderness area?

Untrammeled: Yes: No: Not Applicable:

Explain:

The Cascade Crest is prone to annual late-summer lightning storms, which often result in numerous unplanned wildfire ignitions. Under high or extreme fire conditions when fire is threatening or could threaten life and property within or outside of the wilderness, wilderness and fire managers often call for suppression of these naturally ignited fires. The activities associated with fire suppression, even when using minimum suppression tactics, negatively affect the untrammeled quality of wilderness character. The negative effects from suppression activities include construction of suppression lines and the use of mechanized or motorized equipment within the wilderness from aerial delivery of suppression resources via parachute or helicopters; application of retardant via airplane, or use of chainsaws and portable pumps. In addition to the direct negative impacts to the untrammeled character, suppression also hinders the natural role of wildfires, which is an important process in the fire adapted ecosystems of the Cascade Crest. Prohibiting the natural role of fire in wilderness can have far reaching cascading effects on the natural processes within the wilderness. Prescribed fires are designed to occur under conditions that will, to the extent possible, avoid or minimize the use of mechanized and motorized equipment and construction of suppression lines, and will allow future wildfires to play a more natural role across the wilderness landscape in perpetuity. Even though prescribed fires, in and of themselves, are an impact to the untrammeled characteristics of wilderness, in the long term, prescribed fire will promote greater protection of the untrammeled, undeveloped and natural conditions that are an integral part of the wilderness character than would occur without prescribed fire. Successful application of prescribed fire will result in a higher frequency of natural fires that can burn without human suppression, and will ultimately reduce the amount of suppression activities that occur in the future.

Undeveloped: Yes: No: Not Applicable:

Explain:

Natural: Yes: No: Not Applicable:

Current conditions in the project area prohibit fire from playing its natural role in wilderness. The combination of development near the wilderness and past fire suppression activities, which have increased fuel loads, has resulted in a situation where fire suppression activities are necessary during the event of large fires. Natural fires generally take place during peak fire season when fuels are dry and fires are likely to expand out of the wilderness, resulting in a cycle of suppression, which results in increased future fuels and additional suppression activities, resulting in a managed, unnatural ecosystem.

Treatment to the wilderness area would take place during conditions that contribute to low fire severity. While prescribed fires are an intentional manipulation of the wilderness landscape, and thus an impact to the natural and untrammeled characteristics to wilderness, they would allow

fire staff to strategically ignite fires in the project area in ways that would act as a barrier to future wildfires. It is critical that prescribed fire in the wilderness is not used to alter the landscape and vegetative communities any more than the minimum necessary to allow future fires to play their natural role in wilderness. The resulting mosaic of burned patches will limit the risk to adjacent values from naturally ignited fires, and create a working environment where fire staffs are able to allow natural fires to burn. The overall result of this proposal would preserve the naturalness of wilderness in the long term, though it negatively affects natural qualities in the short term.

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

Yes: No: Not Applicable:

Explain:

Other unique components that reflect the character of this wilderness:

Yes: No: Not Applicable:

Explain:

Ecological: Yes – The stated objective to, “Increase our capability to permit lightning-caused fires to play, as nearly as possible, their natural ecological role within wilderness” directly benefits the natural conditions and the natural function of ecological processes in wilderness through long term restoration. The objective promotes the natural and untrammelled qualities and will eventually allow wildfire to play its natural ecological role across the wilderness landscape.

Geological: No

Scientific: No

Educational: No

Scenic: No

Historical: No

T&E Species: No

Note: While prescribed fires are not necessary to preserve T&E species, both lightning-ignited wildfires and prescribed fire could impair T&E species through the modification/removal of suitable habitat and could disrupt the area to function as dispersal habitat and provide for connectivity. It could also attract potential predators/competitors by opening up the area which could put them at increased risk of loss.

F. Describe Effects to the Public Purposes of Wilderness

Is action necessary to support one or more of the public purposes for wilderness (as stated in Section 4(b) of the Wilderness Act) of recreation, scenic, scientific, education, conservation, and historical use?

Recreation: Yes: No: Not Applicable:

Explain:

Scenic: Yes: No: Not Applicable:

Explain:

Scientific: Yes: No: Not Applicable:

Explain:

Education: Yes: No: Not Applicable:

Explain:

Conservation: Yes: No: Not Applicable:

Explain: The stated objective to, “Increase our capability to permit lightning-caused fires to play, as nearly as possible, their natural ecological role within wilderness” directly benefits the natural conditions and the natural function of ecological processes in wilderness through long term restoration. The objective promotes the natural and untrammelled qualities and will eventually allow wildfire to play its natural ecological role across the wilderness landscape.

Historical use: Yes: No: Not Applicable:

Explain:

Step 1 Decision: Is any administrative action necessary in wilderness?

Yes: No: More information needed:

Explain:

This MRDG demonstrates that administrative action in wilderness is necessary in order to

- Increase our capability to permit lightning-caused fires to play, as nearly as possible, their natural ecological role within wilderness
- Reduce, to an acceptable level, the risks and consequences of wildfire within selected areas of the Three Sisters and Mt. Washington wildernesses from escaping the wilderness and posing a threat to public and firefighter safety and to values adjacent to the wilderness boundary

Treatments outside of wilderness alone, without treatment inside the wilderness will not be sufficient to meet the objectives of this project.

It is critical that, if action is approved, the actions taken are solely for the purpose of the objectives stated above. Prior to implementation of this project, what success is must be 2009b version: Visit <http://www.wilderness.net/MRDG/> to ensure you have the latest version

defined. It is critical that prescribed fire in the wilderness is not used to alter the landscape and vegetative communities any more than the minimum necessary to allow future fires to play their natural role in wilderness.

Following approval of the first section of this MRDG, the minimum activity will be determined and effects will be analyzed as part of the NEPA process. Additionally, treatment actions will be identified and analyzed using the MRDG prior to implementation.

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

Step 2: Determine the minimum activity.

Please refer to the accompanying MRDG Instructions for an explanation of the effects criteria displayed below.

Description of Alternatives

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

Alternative # _ ____

Description:

Effects:

Wilderness Character

“Untrammeled”

“Undeveloped”

“Natural”

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

Other unique components that reflect the character of this wilderness

Heritage and Cultural Resources

Maintaining Traditional Skills

Special Provisions

Economic and Time Constraints

Additional Wilderness-specific Comparison Criteria

Safety of Visitors, Personnel, and Contractors

Alternative # _ ____

Description:

Effects:

Wilderness Character

“Untrammeled”

“Undeveloped”

“Natural”

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

Other unique components that reflect the character of this wilderness

Heritage and Cultural Resources

Maintaining Traditional Skills

Special Provisions

Economic and Time Constraints

Additional Wilderness-specific Comparison Criteria

Safety of Visitors, Personnel, and Contractors

Comparison of Alternatives

It may be useful to compare each alternative's positive and negative effects to each of the criteria in tabular form, keeping in mind the law's mandate to "preserve wilderness character."

	Alternative A	Alternative B	Alternative C	No Action
Untrammeled				
Undeveloped				
Natural				
Solitude or Primitive Recreation				
Unique components				
WILDERNESS CHARACTER				

	Alternative A	Alternative B	Alternative C	No Action
Heritage & Cultural Resources				
Maintaining Traditional Skills				
Special Provisions				
Economics & Time				
Additional Wilderness Criteria				
OTHER CRITERIA SUMMARY				

	Alternative A	Alternative B	Alternative C	No Action
SAFETY				

Safety Criterion

If safety issues override impacts to wilderness character or other criteria, provide documentation that the use of motorized equipment or other prohibited uses is necessary because to do otherwise would cause increased risks to workers or visitors that cannot be satisfactorily mitigated through training, use of personal protective equipment (PPE), or other requirements to alleviate the safety risk. (This documentation can take the form of agency accident-rate data tracking occurrences and severity; a project-specific job hazard analysis; research literature; or other specific agency guidelines.)

Documentation:

Step 2 Decision: What is the Minimum Activity?

Please refer to the accompanying MRDG Instructions before describing the selected alternative and describing the rationale for selection.

Selected alternative:

Rationale for selecting this alternative (including documentation of safety criterion, if appropriate):

Monitoring and reporting requirements:

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

- mechanical transport
- motorized equipment
- motor vehicles
- motorboats
- landing of aircraft
- temporary road
- structure or installation

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

Approvals	Signature	Name	Position	Date
Prepared by:				
Recommended:				
Recommended:				
Approved:				