



# Appendix K

MINIMUM REQUIREMENTS DECISION GUIDE

OVERVIEW, INSTRUCTIONS,

AND WORKSHEETS

WASHINGTON DEPARTMENT OF

FISH AND WILDLIFE

COMMENTS ON THE MINIMUM

REQUIREMENTS ANALYSIS

APPENDIX K:

MINIMUM REQUIREMENTS DECISION GUIDE  
OVERVIEW, INSTRUCTIONS, AND WORKSHEETS

WASHINGTON DEPARTMENT OF  
FISH AND WILDLIFE  
COMMENTS ON THE MINIMUM REQUIREMENTS ANALYSIS



ARTHUR CARHART NATIONAL WILDERNESS TRAINING CENTER

# MINIMUM REQUIREMENTS DECISION GUIDE

## OVERVIEW

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

– The Wilderness Act, 1964

### Introduction

The Minimum Requirement Decision Guide (MRDG) is designed to assist wilderness managers in making appropriate decisions in wilderness. Use of the MRDG requires familiarity with the difference between wilderness and other public lands as defined by the Wilderness Act

This Overview document provides general information about the MRDG process, its origination, and how it relates to other processes such as NEPA. Please refer to the accompanying *MRDG Instructions* and *MRDG Worksheets* for specific information about completing the MRDG.

### Wilderness Act Guidance

The concept of Minimum Requirement comes from Section 4(c) of the Wilderness Act of 1964:

"Except as specifically provided for in this Act, and subject to existing private rights, there shall be no commercial enterprise and no permanent road within any wilderness area designated by this Act and except as necessary to meet minimum requirements for the administration of the area for the purpose of this Act (including measures required in emergencies involving the health and safety of persons within the area), there shall be no temporary road, no use of motor vehicles, motorized equipment or motorboats, no landing of aircraft, no other form of mechanical transport, and no structure or installation within any such area." (emphasis added)

Applicable actions include, but are not limited to, scientific monitoring, research, recreational developments (trails, bridges, signs, etc.), and activities related to special provisions mandated by the Wilderness Act or subsequent legislation (such as grazing, exercising mineral rights, access to inholdings, maintenance of water developments, and commercial services).

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The following three boxes contain excerpts from the Wilderness Act of 1964 that may be useful reminders of key provisions of the law applicable to the use of this Minimum Requirements Decision Guide.

#### **What is the purpose of wilderness?**

"In order to assure that an increasing population, accompanied by expanding settlement and growing mechanization, does not occupy and modify all areas within the United States..., leaving no lands designated for preservation and protection in their natural condition, it is hereby declared to be the policy of Congress to secure for the American people of present and future generations the benefits of an enduring resource of wilderness." Section 2(a)

#### **What is wilderness?**

"... lands designated for preservation and protection in their natural condition..." Section 2(a)

"... an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation..." Section 2(c)

"... generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable..." Section 2(c)

"... has outstanding opportunities for solitude or a primitive and unconfined type of recreation... and may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value." Section 2(c)

#### **How is wilderness administered?**

"... shall be administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness, and so as to provide for the protection of these areas, the preservation of their wilderness character, and for the gathering and dissemination of information regarding their use and enjoyment as wilderness..." Section 2(a)

"A wilderness, in contrast with those areas where man and his works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man is a visitor who does not remain." Section 2(c)

"An area of wilderness is... protected and managed so as to preserve its natural conditions and... its preservation and use in an unimpaired condition..." Section 2(c)

"... each agency administering wilderness... shall be responsible for preserving the wilderness character of the area..." Section 4(b)

"... wilderness areas shall be devoted to the public purposes of recreational, scenic, scientific, educational, conservation, and historical use." Section 4(b)

In addition to the Wilderness Act, subsequent legislation and agency policy may influence determination of the minimum required for action. In some instances, Agencies have included more guidance and definitions in their respective policies. Please See *Agency Guidelines* for more specific information.

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## Use of this Guide

The MRDG is a process to identify, analyze, and select management actions that are the minimum necessary for wilderness administration. It applies this direction from the Act and incorporates a two-step process. Step 1 determines whether it is **necessary** to take action. If action is found to be necessary, then Step 2 provides guidance for determining the **minimum** action.

The MRDG can be used as:

- a process for evaluation and documentation;
- a guide to help discuss proposals with interested parties; or
- a review of on-going management practices to determine if they are necessary or if a less intrusive practice can be implemented.

The level of detail and effort necessary to utilize the MRDG process depends on the scope and complexity of the issue or problem being considered. One person might adequately analyze simple actions; complex actions may require the coordination of several specialists. The MRDG Worksheets provide a series of questions about the necessity of taking any action to resolve a situation and the most appropriate methods or tools to use. The decision to approve an action is a critical aspect of wilderness management. At times, the decision is not straightforward and requires a delicate balancing act.

## Emergencies

Do not use the MRDG for emergency situations; follow procedures already outlined in approved emergency plans. The minimum requirements concept should be incorporated into such plans when they are being prepared, so that minimum necessary methods and tools are being utilized to meet the needs of the emergency.

## Safety

The safety of wilderness visitors, employees, volunteers, and contractors is a priority in all decisions and actions. Complying with Section 4(c) of The Wilderness Act and conducting a minimum requirements analysis using the MRDG does not alter or diminish this need.

The MRDG is intended to help identify, analyze and select management actions that are the minimum necessary for wilderness without compromising safety. A fair and honest evaluation of all available options, within agency safety requirements, is needed to make an appropriate decision for wilderness. Wilderness managers are encouraged to learn, cultivate, and share traditional and primitive skills and develop alternative minimum impact methods and tools that allow activities to be accomplished safely with a minimal amount of degradation to the wilderness character.



## The Minimum Requirements Analysis and NEPA Analysis

The Minimum Requirements Decision Guide is designed to flow into a NEPA format, if needed. Portions of the MRDG may be transferable to a subsequent NEPA analysis.

Agency NEPA guidelines do not necessarily require a process to determine if administrative action in wilderness is necessary or to select the tool and method that causes the least adverse effect to wilderness character. The minimum requirements analysis provides a method to determine the necessity of an action and how to minimize impacts; NEPA analysis compares and discloses the environmental effects of alternatives, documents a decision, and requires public involvement.

### Process Comparison

Minimum Requirements Analysis	NEPA Analysis
<b>STEP 1: Determine if Action is necessary.</b>	
Description	Purpose and need for action Existing environment or condition
Valid existing rights, special provisions, other legislation, or other guidance from policy or plans (Step 1 A-C)	Management direction
Wilderness character (Step 1 E) Public purposes of wilderness (Step 1 F)	Issues
<b>STEP 2: Determine the minimum tool.</b>	
Alternative descriptions	Proposed Action and Alternatives
Alternative comparison criteria	Alternative comparison by issues
Effects to wilderness character	Environmental consequences
Selected alternative	Decision
Rationale	Reasons for the decision
Monitoring/reporting requirements	Decision conditions

## The Minimum Requirements Analysis and the Planning Process

The degree to which a Minimum Requirements analysis can be useful in the planning process will vary depending on the scope of the process and the objectives for the plan. Listed below are the three typical planning levels in use by the agencies and a suggested use of the Minimum Requirements Analysis.

Planning Level	Use of Minimum Requirements Analysis
<u>Comprehensive Land Use Planning</u> (i.e. forest plans, park plans, refuge plans, resource management plans, and wilderness management plans)  – Establish or modify general unit standards and guidelines and/or make land use allocations	Use the minimum requirements to help screen alternatives in anticipation authorizing needed actions in the future while insuring the preservation of wilderness character.
<u>Programmatic Planning</u> (i.e. Trail Plans, Weeds Treatment Plans, Monitoring Plans, Restoration Plans, Step Down Plans, etc.)  - Analysis of multiple, similar, or routine project proposals or activities (trail maintenance, monitoring, dam maintenance, etc.) in one assessment	Use the Minimum Requirements Decision Guide to prepare a single analysis for similar, current, and potential actions.  Create a 'decision tree' or 'GO/NO GO checklist' to be able to assess the necessity for action involving the Section 4(c) uses as similar needs come along in the future.
<u>Project or Site Specific Planning</u> (i.e. wildlife survey, stream crossing, trail repair, weed treatment, etc.)  - Analysis of site-specific or non-recurring actions.	Use the Minimum Requirements Decision Guide to determine if action is necessary and, if so, determine the minimum tool.





ARTHUR CARHART NATIONAL WILDERNESS TRAINING CENTER

# MINIMUM REQUIREMENTS DECISION GUIDE

## INSTRUCTIONS

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

– The Wilderness Act, 1964

### Introduction

The Minimum Requirements Decision Guide (MRDG) is designed to assist wilderness managers in making appropriate decisions for wilderness. These instructions refer to completing the MRDG *Worksheets*. More information about the background of the MRDG, and its appropriate uses can be found in the *Overview*. Please also refer to your agency policies and other guidance in *Agency Guidelines* for more direction on how and when to use the MRDG.

**Use of this document assumes familiarity with the Wilderness Act, other relevant legislation, and agency policy.**

The MRDG is derived from Section 4(c) of the Wilderness Act and involves two steps. Step 1 determines whether action is **necessary**. If action is necessary, then Step 2 provides guidance for determining the **minimum** necessary action.

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## Worksheet Instructions

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

**Description:** Briefly describe the situation that may prompt action. This is not a description of a possible method or tool, but rather the situation that prompts the possible need for action. This step should **not** be used to justify use of motorized equipment or mechanical transport, or to approve placement of a structure, facility, or temporary road.

Correct Examples of description	Incorrect examples of description
An administrative cabin is deteriorating	Need to restore the administrative cabin
A request is received for access into a valid, existing mining claim	Need to build a temporary road for mining claim access.
Blown down trees are blocking trails	Need to use chainsaws to clear the blown down trees
Lack of information on a wildlife species	Need to land a helicopter to survey population
Fire alters wildlife habitat	Need to re-seed area to maintain wildlife habitat
User conflict complaints between stock users and hikers	Need to survey visitors about user conflicts or close trail to one type of use
A trail bridge has washed out	Need to replace the washed out bridge, using mules for supplies
Riverbank erosion is destabilizing a pioneer cabin listed on the National Historic Register	Need to sling-load rock gabions to stop erosion
Lack of information on air quality in Class I wilderness airshed	Need to set up air quality monitoring station in wilderness
Invasive species present	Need to use motorized sprayer to treat invasives

## 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.

If there is special provision language (e.g., maintenance of dams and water storage facilities with motorized equipment and mechanical transport, control of fire, insects and disease, access to private lands, etc), whether in the Wilderness Act of 1964 or subsequent designation legislation, some actions may be required that would otherwise be prohibited. The exact reference to the legislation is needed in this box. Examples include:

Existence of public use cabins and subsistence use and access in Wilderness (Alaska National Interest Lands Conservation Act of 1980, P.L. 96-487, Sec. 1315(c)).  
Use of motorboats of ten horsepower or less in the Okefenokee Wilderness (Wilderness Act of 1964, P.L. 88-577, Sec. 4(d)(1); Okefenokee Wilderness Act of 1974, P.L. 93-430, Sec.2).

Some Valid Existing Rights or the provisions of special legislation may be satisfied by an option outside wilderness. Such possibilities should be explored.



## B. Describe Requirements of Other Legislation

### Do other laws require action?

Laws not directly concerned with wilderness (such as the Endangered Species Act or National Historic Preservation Act) may influence the need for actions in Wilderness. In some instances, the administrator is asked to satisfy the requirements of at least two laws. For example:

- Recovery of an endangered species dependent on wilderness ecosystems (Endangered Species Act).
- Treatment of site listed on the National Register of Historic Places (National Historic Preservation Act).

Apparent conflicts between the Wilderness Act and other legislation may require innovative approaches. Not all apparent conflicts are genuine.

## 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, or state, local government, or interagency agreements?

Review guidance for conformance and carefully consider the context of the guidance, plan or agreement. Plans developed using a NEPA analysis are decisions that provide stronger guidance than plans developed with less public or interdisciplinary involvement. Examples include:

- A programmatic decision to treat invasive weeds has already been addressed in a unit level plan that included wilderness. No decision was made regarding the method of treatment.
- The need for bridges, fords, or in-stream structures has been addressed in a fish species recovery plan. The plan does not dictate the type of structure, method of construction, or tools required.

Even if relevant programmatic decisions have already been made that satisfy Step 1 of a Minimum Requirements analysis, both Step 1 and Step 2 should be completed to determine the minimum tool or method.

## D. Describe Options Outside of Wilderness

### Can this situation be resolved by action outside of wilderness?

Examples that might be explored include:

- Putting up nest boxes outside wilderness boundaries.
- Surveying visitors about user conflicts at the trailhead or visitor center, rather than on the trail or at their wilderness campsite
- Locating trail destination and distance signs can be located at trailheads outside wilderness (unless already determined by agency policy).
- Locating monitoring or other administrative structures outside wilderness.

## E. Wilderness Character

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

Section 2(a) of the Wilderness Act directs us to manage wilderness areas for the preservation of their wilderness character. Similar direction is repeated in Section 4(b). It is recommended that particular attention is paid to the general guidance in the Wilderness Act, as outlined in the boxes on Page 2 of the



*Overview*, and to agency policy. In addition, at least four major components of wilderness character are mentioned in Section 2(c) of the Wilderness Act. These are:

- "**Untrammeled**" – Wilderness is ideally unhindered and free from modern human control or manipulation.
- "**Undeveloped**" – Wilderness has minimal evidence of modern human occupation or modification.
- "**Natural**" – Wilderness ecological and evolutionary systems are substantially free from the effects of modern civilization.
- "**Outstanding opportunities for solitude or a primitive and unconfined type of recreation**" – Wilderness provides opportunities for people to experience natural sights and sounds, solitude, freedom, risk, and the physical and emotional challenges of self-discovery and self-reliance.

This list of wilderness character components is not comprehensive. Other components can be defined that are of particular importance and reflect the character of your wilderness. An example of an action altering wilderness character is:

Taking management action to control invasive weeds might increase naturalness, while at the same time, greater manipulation of the wilderness decreases the untrammeled character of the area; the presence of employees and use of equipment to control invasive weeds may decrease visitor's opportunities for solitude in certain sections of this wilderness.

## 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?**

Identify which of these public purposes would be degraded or enhanced by administrative action. For example:

- If a main trail bridge is not replaced, it may affect recreation since the stream is otherwise impassable most of the year.
- A secondary trail bridge makes travel easier for only a short time of year, and therefore not replacing it may not significantly impact recreation.
- Scientific activities may be accomplished by limited visits to the area by researchers instead of a research installation.

**Step 1 Decision: Is it necessary to take action?** Evaluate the responses made to all questions in Step 1 and determine whether there is a need to proceed to Step 2. If the responses indicate potential adverse impacts from taking action, document whether there is sufficient reason to proceed to Step 2.



## 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.**

The description of alternatives and effects varies by the complexity of the action. Identify and describe a full range of feasible alternatives, including necessary mitigation measures that represent the various actions, and the methods and tools that could be used. Include a "No Action" alternative to allow for a comprehensive comparison of effects. Complete a form for each alternative action being considered.

Compare the potential effects of each alternative on wilderness character by describing the effects of implementation using the criteria below. This list is not all-inclusive, and other criteria which address the special features or unique character of each wilderness should be developed as needed. Use the criteria for comparing the effects of each applicable phase of the action including design, construction, management, removal, or restoration.

#### Alternative Comparison Criteria

##### Biological and Physical Resource

Describe the potential for protection, impairment, or restoration of natural conditions (air, water, soil, wildlife, fish, plants, etc.) including endangered, threatened, or rare species, natural biological diversity, and self-regulating ecosystems.  
Discuss effects related to protecting natural conditions within the regional landscape (i.e. insects, disease, or non-native species).

##### Social and Experiential Resource

Identify how opportunities for visitors to experience solitude or a primitive and unconfined type of recreation will be protected or impaired.  
Describe the effects on wilderness character that will be noticeable to the visitor.

##### Heritage and Cultural Resource

Describe any effects on protection or management of historic, pre-historic, listed or eligible items, sites, structures, or landscapes.

##### Maintaining Contrast and Unimpaired Character

Identify any trend in wilderness management decisions that could be cumulative and cause impairment of wilderness character over time.  
Explain how the alternative helps provide a contrast between wilderness and other areas where humans and their work dominate the landscape.  
Determine if there will be effects that will prevent the wilderness from remaining unimpaired for the future use and enjoyment as wilderness.

##### Special Provisions

Explain how the special provisions and rights (grazing, mining, water developments, access to non-federal land, etc.) identified in the Wilderness Act (Sections 4 and 5) or subsequent legislation, are managed to minimize degradation of wilderness character.

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

Describe any safety concerns associated with implementing the alternative on agency personnel, volunteers, and/or contractors.  
Identify any potential public safety hazards resulting from implementation of the alternatives.  
Discuss use of primitive and traditional skills and tools.



**Economic and Time Constraints**

Describe the costs and the amount of time it will take for implementation of the alternative.  
Explain how each alternative satisfies any significant timing requirements or identified need for urgency.

**Additional Wilderness-specific Comparison Criteria**

Identify any other decision factors that are relevant to the unique characteristics and special features of this wilderness.

**Step 2 Decision: What is the Minimum Tool?**

Select the alternative that represents the minimum requirements necessary to administer the areas as wilderness.

Describe the rationale for selecting it.

Describe management requirements for minimizing effects including location, timing, frequency of action, design standards, etc. List any maintenance, monitoring, or reporting requirements. To aid in tracking and reporting the number and type of authorizations, check the box for each Section 4(c) use that is included in the selected alternative.



## MINIMUM REQUIREMENTS DECISION GUIDE WORKSHEETS

### Arthur Carhart National Wilderness Training Center

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

– The Wilderness Act, 1964

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

##### **Briefly describe the situation that may prompt action:**

The situation that may prompt action in the Stephen T. Mather Wilderness is the implementation of a Mountain Lakes Fishery Management Plan/Environmental Impact Statement (plan/EIS). The draft plan/EIS considers a range of management alternatives, which include fish stocking and removal of reproducing populations of fish in select mountain lakes. The following section describes the purpose and need for the draft plan/EIS, and the existing conditions that may prompt administrative action in the Stephen T. Mather Wilderness.

The purpose of the draft plan/EIS is to guide management actions by the NPS and WDFW in mountain lakes that would:

- Conserve native biological integrity;
- Provide a spectrum of recreational opportunities and visitor experiences, including sport fishing;
- Resolve the long-standing debate and conflicts over fish stocking in the naturally fishless mountain lakes in North Cascades National Park, Ross Lake National Recreation Area, and Lake Chelan National Recreation Area (which together make up the “North Cascades National Park Service Complex”)

##### **Need:**

NPS fishery management actions are governed by various relevant laws, regulations, and policies. In most NPS units, natural resources (including lakes and fish) are managed in accordance with the *Organic Act of 1916* and in concert with *NPS Management Policies* (NPS 2001a) and *Director’s Order 12: Conservation Planning, Environmental Impact Analysis, and Decision Making and Handbook*, which allow sport fishing unless it is specifically prohibited, and prohibit stocking in most NPS waters (NPS 2001a, 4.4.3 and 8.2.2.5).

In the North Cascades Complex, fish have historically been managed by a combination of agencies and user groups. This is partly because the enabling legislation for the North Cascades Complex does not define the angling activities that were to be allowed within its boundaries, and partly because the area has a history of fish management by the state of Washington and sport fishing groups. This history of fish management predates the 1968 establishment of the North Cascades Complex by many years (see “History of Fish Management in North Cascades Mountain Lakes” in the “Background” section of the “Purpose of and Need for Action” chapter of the draft plan/EIS for more information on the North Cascades Complex enabling legislation).



The lakes that are the focus of the draft plan/EIS are the 91 mountain lakes in the North Cascades Complex that were naturally fishless, but have had some history of fish stocking since the late 1800s. The Stephen T. Mather Wilderness portion of the North Cascades Complex encompasses all of the lakes (except Thunder Lake) under consideration in the draft plan/EIS.

### **Existing Conditions:**

Approximately 1000 anglers per year fish in the mountain lakes in the Stephen T. Mather Wilderness. The lakes are naturally fishless. In order to maintain a viable mountain lakes fishery for these anglers, some of the mountain lakes are stocked periodically by the Washington Department of Fish and Wildlife and their approved representatives. The Washington Department of Fish and Wildlife and various user groups advocate allowing fish stocking to continue in order to maintain the mountain lakes sport fishery.

Past stocking efforts have created reproducing, self-sustaining populations of nonnative fish in 37 lakes in the Stephen T. Mather Wilderness. Research demonstrates that these self-sustaining populations of fish can overpopulate the lakes and cause a variety of ecological effects. These effects include predation and competition with native organisms, and the potential for downstream dispersal and hybridization with native fish populations.

### **Administrative Actions analyzed in this Minimum Requirements Analysis:**

The administrative actions of fish stocking and fish removal in the Stephen T. Mather Wilderness are considered in this analysis. Fish stocking would involve placing hatchery produced, nonreproducing trout in select mountain lakes. Methods for transporting stocked fish would include hand stocking via backpack access, and stocking by air with fixed wing aircraft. Fish removal would include various means of removing reproducing fish populations from select lakes. Fish removal would involve mechanical methods such as gillnetting combined with electrofishing and blocking access to spawning grounds in lakes with very limited spawning habitat. Fish removal would also involve application of the piscicide antimycin. The draft plan/EIS also considers a passive or “natural” method of fish removal that simply involves stopping the ongoing practice of stocking certain lakes that do not contain reproducing populations of fish. Since ceasing to stock as a means of removing fish does not involve administrative action in the Stephen T. Mather Wilderness, it is not considered in this analysis. Fish stocking and fish removal are considered separately in the following sections of this Minimum Requirement Analysis because they have different consequences for wilderness resources and the wilderness experience.

#### **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: ☒

No: ☒

Not Applicable: ☐

### **Explain:**

Valid Existing Rights: There is disagreement between the Washington Department of Fish and Wildlife and the National Park Service over the degree of jurisdictional authority to stock waters in the national park portion of North Cascades Complex. For the purpose of this analysis, it is asserted that this issue is



not subject to existing rights. The basis for this assertion is the NPS interpretation of the enabling legislation and legislative history for the North Cascades Complex.

**Special provision in legislation (the 1964 Wilderness Act or subsequent laws), that allows this project or activity:**

*Fish Stocking:* There is no provision in the enabling legislation, the Wilderness Act, or the Washington Park Wilderness Act that explicitly allows for fish stocking.

*Fish Removal:* There is no provision in the enabling legislation, the Wilderness Act, or the Washington Park Wilderness Act that explicitly allows for fish removal. However, as an administrative unit of the National Park System, the North Cascades Complex is governed by the National Park Service Organic Act (39 Stat. 535, codified at 16 U.S.C. sections 1 through 4), which prohibits the NPS from allowing impairment of park resources or values. Thus, the NPS would have the authority to remove fish from wilderness lakes if their presence has the potential to impair park resources or values.

**B. Describe Requirements of Other Legislation**

Do other laws require action?

Yes: ☒

No: ☐

Not Applicable: ☐

**Explain:**

Provisions of the NPS Organic Act (39 Stat. 535, codified at 16 U.S.C. sections 1 through 4), and the Redwood National Park Expansion Act, as amended (92 Stat. 166, codified at 16 U.S.C. 1a-1), prohibit NPS from taking any action that may potentially impair park resources and values. For a complete description of other related laws, see appendix D of the draft plan/EIS.

**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: ☐

*Fish Stocking:* Stocking of naturally fishless lakes in the National Park portion of the Stephen T. Mather Wilderness violates current NPS management policies regarding stocking of nonnative fish into national park waters. However, NPS policies do allow for stocking of nonnative fish into national recreation areas under certain circumstances (see section below entitled “NPS Management Policies 2001” and appendix D).

*Fish Removal:* The removal of nonnative populations of fish from lakes in both the park and national recreation areas would conform to NPS management policies. Fish removal would also conform to the terms of the 1985 MOU between the NPS and WDFW regarding fish and wildlife management provided that the NPS consults with the WDFW before taking any action (see section below entitled “MOU Between the NPS and WDFW” and appendix A).



**Explain:****NPS Management Policies (2001)**

*NPS Management Policies* instruct park units to:

Maintain as part of the natural ecosystems of parks all native plants and animals by minimizing human impacts on native plants, animals, populations, communities, and ecosystems, and the processes that sustain them (NPS 2001a, 4.4.1).

Reestablish natural functions and processes in human-disturbed components of natural systems in parks (unless otherwise directed by Congress) (NPS 2001a, 4.1.5). (Human disturbances include the introduction of exotic species and the disruption of natural processes. Using the best available technology and within its staff, funding and other resource constraints, park units are to restore the biological and physical components of these systems.)

Seek to return human-disturbed areas to the natural conditions and processes characteristic of the ecological zone in which the damaged resources are situated” (NPS 2001a, 4.1.5).

Allow recreational uses in wilderness that enable the areas to retain their primeval character and influence; protect and preserve natural conditions; leave the imprint of man’s work substantially unnoticeable; provide outstanding opportunities for solitude or primitive and unconfined types of recreation; and preserve wilderness in an unimpaired condition (NPS 2001a, 6.4.3).

Evaluate recreational uses --particularly new and emerging uses-- that compromise the stated purposes and definitions of wilderness or unduly impact the wilderness resource or the visitor experience within wilderness, to determine if these uses are appropriate, or should be limited or disallowed (NPS 2001a, 6.4.3.1).

Sport fishing is generally allowed in NPS units unless specifically prohibited, providing it “does not jeopardize natural aquatic ecosystems or riparian zones” (NPS 2001a, 8.2.2.5). At least one-third of the areas administered by the NPS have substantial fish resources and fishery activities. Sport fishing has been permitted in national parks since the establishment of Yellowstone National Park in 1872. Sport fishing is managed under 36 CFR 2.3, which states in part, “fishing shall be in accordance with the laws and regulation of the State . . . Nonconflicting State laws are adopted as part of these regulations.” The NPS is allowed to restrict fishing activities wherever needed to achieve its own management objectives.

In contrast to sport fishing, the practice of stocking fish is generally prohibited in park units. Stocking cannot “impair park natural resources or processes,” and it must take place only in national recreation areas or preserves that have historically been stocked (only the same species that has historically been stocked may continue to be stocked) (NPS 2001a, 4.4.3). Exotic species cannot displace native species (if displacement can be prevented), and parks are to manage “up to and including eradication” if control is feasible and the exotic species interferes with native species, natural habitats, or disrupts the integrity of the native species (NPS2001a, 4.4.4.2). If an exotic species is introduced or maintained to meet specific NPS management needs, all “feasible and prudent measures to minimize the risk of harm” to native biota or invasion of habitat by the exotic species must be taken, and the exotic species must “be known to be historically significant, to have existed in the park during the park’s period of historical significance, or to have been commonly used in the local area at that time (NPS 2001a, 4.4.4.1).”

For more information regarding NPS Management Policies, refer to appendix D of the draft plan/EIS.



## Memorandum of Understanding between the NPS and WDFW

To resolve differences in policy and to foster a spirit of cooperation, the NPS and WDFW negotiated a series of agreements beginning in 1979 that allowed stocking to continue in selected lakes in the North Cascades Complex. Currently, the management of mountain lakes is performed under a temporary extension of the 1985 Memorandum of Understanding and 1988 Supplemental Agreement between the two agencies. The Memorandum of Understanding and Supplemental Agreement (see appendix A for copies of both documents) were written “to continue cooperative efforts in management of protection and enhancement of the fisheries and wildlife resources of mutual concern.” The Memorandum of Understanding provided “Statements of Work” (or directives) for both the NPS and the WDFW. The three main management directives from the Memorandum of Understanding that, in part, pertain to fish management are:

1. To consult with the Department [WDFW] prior to initiating research projects or implementing plans, programs, or regulations affecting fish and wildlife species distribution, numbers, or public use of fish and wildlife found within areas administered by the Service [NPS].
2. To practice those forms of management which will benefit fish and wildlife, and their habitats, and to maintain or restore their natural and historic distribution and abundance, consistent with the respective Service [NPS] policies and park objectives.
3. To permit the harvest of fish and wildlife in accordance with applicable state laws and regulations of the Department [WDFW] in those areas under the jurisdiction of the Service [NPS], which are open to hunting and/or fishing. It is recognized that some park regulations may vary for management purposes.

### D. Describe Options Outside of Wilderness

Can this situation be resolved by action outside of wilderness?

Yes: ☐      No: ☐      Not Applicable: ☒

### Explain:

Only one lake in the study area is outside of wilderness boundaries within the North Cascades Complex (Thunder Lake). There are hundreds of fishable lakes outside of the North Cascades Complex boundaries located within surrounding National Forests, but most of these lakes are also within wilderness boundaries. The NPS would not have authority to take actions outside its boundaries. In addition, some anglers who desire continued sport fishing believe that sport fishing in North Cascade lakes is a recreational opportunity that cannot be duplicated elsewhere.



**E. Wilderness Character**

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

Yes: ☒      No: ☒      Not Applicable: ☐

- **“Untrammeled”** – Wilderness is ideally unhindered and free from modern human control or manipulation.
- **“Undeveloped”** – Wilderness has minimal evidence of modern human occupation or modification.
- **“Natural”** – Wilderness ecological and evolutionary systems are substantially free from the effects of modern civilization.
- **“Outstanding opportunities for solitude or a primitive and unconfined type of recreation”** – Wilderness provides opportunities for people to experience natural sights and sounds, solitude, freedom, risk, and the physical and emotional challenges of self-discovery and self-reliance.

**Untrammeled:**

Stocking naturally fishless lakes, even with nonreproducing trout, would not leave the wilderness “ideally unhindered and free from modern human control or manipulation.” Stocking of fish would manipulate the native ecology of a lake and introduce a nonnative species for the purpose of enhancing recreation.

Fish removal would also entail short-term human control or manipulation, with the objective of reestablishing sustainable native ecological conditions. Over the long term, removal of self-sustaining populations of trout would reestablish the untrammeled nature of the wilderness character by reducing evidence of human manipulation (e.g., nonnative fish) in lakes.

**Undeveloped:**

Development of the wilderness would not occur under any of the alternatives.

**Natural:**

Stocking with nonreproducing trout would temporarily affect the natural character of naturally fishless lakes in wilderness by introducing a nonnative species, thus manipulating the ecological structure of the lakes.

Removal of self-sustaining populations of nonnative fish would help to reestablish and conserve the biological integrity in naturally fishless lakes.

Following removal of reproducing populations, two of the alternatives propose to restock some of the lakes with nonreproducing fish as a means of continuing to provide sport fishing opportunities while minimizing impacts to biological integrity associated with reproducing populations of fish. Restocking,



however would have minor to moderate adverse impacts to native biota over the long-term, and would provide no substantive benefits to the natural character of naturally fishless lakes within the wilderness.

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

Fish stocking would provide approximately 500 to 1,000 anglers per year with the opportunity to fish and have a wilderness experience while doing so. Fish stocking, the presence of anglers, fishing tackle left inadvertently behind, and other evidence of this human activity may impact the opportunities for solitude for some visitors who seek a wilderness experience within the North Cascades Complex.

Removal of reproducing populations of fish would take many years. During this time, some anglers and nonanglers would experience removal activities such as helicopters flights, motorized equipment use and the routine presence of field crews in limited areas of the wilderness. These activities would adversely affect opportunities for solitude and other elements of the wilderness experience for some wilderness users.

**Other unique components that reflect the character of this wilderness:**

Some anglers have reported through the EIS public scoping process that fishing the mountain lakes in the Stephen T. Mather Wilderness is a unique wilderness experience cannot be duplicated elsewhere. They cite the ruggedness of the terrain and the remoteness of the mountain lakes as providing outstanding opportunities for a wilderness experience while fishing within the North Cascades Complex.

**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:**

Fish stocking would continue to enhance recreational opportunities (sport fishing) in natural mountain lakes for approximately 1,000 anglers per year who use the wilderness area. Stocking and sport fishing have been a historic use of the area for several generations prior to the wilderness area's establishment. Stocking of nonreproducing trout in a scientifically informed manner using adaptive management principles would minimize impacts to the scientific and conservation purposes of wilderness. However, various elements of the scientific and conservation purposes of wilderness would remain compromised to some degree because the lakes were naturally barren of fish. For example, some of the mountain lakes would no longer provide scientists with the opportunity to study the ecology of naturally fishless mountain lakes because the lakes would contain nonnative fish.

Removal of self-sustaining populations of trout would best protect the scientific and conservation purposes of wilderness because removal would help to conserve biological integrity by reestablishing fishless conditions. Following removal, it is assumed that ecological structure of the lakes would revert to naturally fishless conditions although this could take many years. However, removal of reproducing populations of fish would reduce the recreational opportunities for a wilderness experience for some anglers because there would be fewer lakes available for fishing.

Following removal of reproducing, self-sustaining populations of trout, restocking of some lakes with nonreproducing populations of trout, as proposed in two alternatives, would support the recreational and historical use purposes of the wilderness area while minimizing impacts to biological integrity.



**Step 1 Decision: Is it necessary to take action?**Yes: ☒No: ☒Not Applicable: ☐**Explain:**

**Fish Removal: Yes.** Given the well-documented impacts of nonnative, reproducing populations of fish on native organisms, the NPS believes it is imperative to remove, wherever feasible, populations of reproducing trout from naturally fishless lakes. The draft plan/EIS concludes that if reproducing populations remained in the lakes, over time there would be major adverse impacts to native biota. Therefore, removal of reproducing, self sustaining populations of fish is required for administration of the area as wilderness in spite of the short term impacts to the wilderness experience that will occur during fish removal.

**Fish Stocking: No.** Stocking non reproducing trout into the high mountain lakes would continue to benefit the recreational wilderness experience for certain wilderness anglers. Stocking, however, would adversely impact the wilderness experience for other wilderness users. Fish stocking would also adversely impact, to varying degrees, the scientific, conservation and natural purposes of wilderness. If stocking were discontinued, opportunities for fishing in the high mountain lakes would be severely limited. However, various opportunities for sport fishing would remain in the rivers and streams, and other types of primitive and unconfined forms of recreation would still exist in the Steven T. Mather Wilderness. Therefore, the NPS believes that fish stocking is not required for administration of the area as wilderness.

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 # B, C, and D

##### Description:

Fish removal methods under alternatives B, C, and D would include mechanical, natural and chemical methods.

Mechanical methods would include gillnetting in combination with electrofishing and cobbling over of spawning grounds to break the cycle of reproduction.

Natural methods would be a passive means of eliminating fish by stopping stocking.

Chemical methods would be limited to application of the piscicide Antimycin to lakes larger than 5 acres in size where removal of fish using mechanical methods would probably not be feasible.

For a complete description of methods and mitigation, see the “Alternatives” chapter of the draft plan/EIS.

##### Effects:

Natural methods would have a beneficial effect on wilderness character for some wilderness users because stocking would cease and there would be less evidence of human manipulation of wilderness. For those who enjoy fishing in mountain lakes, there would be a loss of fishing opportunity and this would have an adverse impact on their wilderness experience.

Mechanical methods would have long-term beneficial impacts on mountain lakes by reestablishing historically fishless conditions. However, intensive use of gillnets and electrofishing equipment would also impose a variety of adverse, short-term impacts to wilderness character in limited areas of the wilderness. These impacts would include:

- Periodic use of helicopters to transport heavy equipment to lakes undergoing fish removal. Reduced opportunities for solitude in limited areas of the wilderness due to the short-term, seasonal presence of crews and mechanized equipment at select lakes undergoing fish removal.
- Some nontarget taxa would be inadvertently harmed or killed by gillnets. Although individual members of the population would be harmed, these adverse impacts would not be expected to affect the populations of nontarget taxa.
- Mechanical methods would only be feasible for removing reproducing populations of fish from small, shallow lakes. They would not be effective on larger deeper lakes.

Chemical methods would be limited to application of the piscicide antimycin in larger, deeper lakes with reproducing and self-sustaining populations of fish that could not be removed using mechanical methods.



The impacts of chemical methods would be similar to that of mechanical methods in many respects. For example, helicopters would be periodically needed to ferry heavy equipment to select lakes each season. In addition, field crews would be present at lakes undergoing treatment for several weeks at a time. Overall, field crews would not need to spend as much time at lakes undergoing antimycin treatment compared to lakes undergoing mechanical treatment, because antimycin treatment would remove fish more rapidly than mechanical treatment.

Application of antimycin would require use of motorized inflatable boats and other mechanized forms of equipment that would not be necessary for mechanical treatment.

Antimycin application would impact different forms of nontarget taxa compared to gillnetting. Impacts to nontarget taxa would be limited to those taxa most sensitive to antimycin, such as certain aquatic invertebrates. Nontarget taxa such as mammals and birds would not be affected by antimycin, whereas some individuals could be harmed or killed by gillnet entrapment.

Application of the piscicide antimycin in wilderness waters would offend some wilderness enthusiasts who would not support the use of pesticides in wilderness, the objective of fish removal, or both.

A comprehensive description of the impacts of fish removal on wilderness resources and values is provided in the “Environmental Consequences” chapter of the draft plan/EIS.



**Step 2 Decision:** What is the Minimum Tool?

The selected alternative is: (To be implemented prior to management action)

Describe the rationale for selecting this alternative:

Describe any monitoring and reporting requirements:

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

- |   |  |
|---|--|
| <input type="checkbox"/> mechanical transport | <input type="checkbox"/> landing of aircraft       |
| <input type="checkbox"/> motorized equipment  | <input type="checkbox"/> temporary road            |
| <input type="checkbox"/> motor vehicles       | <input type="checkbox"/> structure or installation |
| <input type="checkbox"/> motorboats           |  |

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



# APPENDICES

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



## WASHINGTON DEPARTMENT OF FISH AND WILDLIFE COMMENTS ON THE MINIMUM REQUIREMENTS ANALYSIS

The Washington Department of Fish and Wildlife (WDFW) appreciates the opportunity to work closely with National Park Service (NPS) staff in the development of the *Draft Mountain Lakes Fishery Management Plan / Environmental Impact Statement* (plan/EIS) for the North Cascades National Park Service Complex, and overall, we are generally satisfied with its technical content, and the responses to our technical comments and resultant revisions. The WDFW has carefully reviewed this appendix K. We were unable to find any mention of fish stocking in the *Wilderness Act*, including 4(c), where prohibited activities are defined. Our interpretation of the minimum requirements under the Act was that it would be applied to proposed prohibited activities. We now understand that it is NPS policy that requires any management action in wilderness administered by the NPS to undergo a Minimum Requirements Analysis (MRA). The WDFW expects that NPS will include additional text in their EIS to clarify this with citations.

With regard to the MRA on fish stocking itself, WDFW contends that the perspective brought forth in the following argument leads us to conclude that some limited, biologically based stocking of nonreproducing trout is necessary for the administration of the Stephen T. Mather Wilderness, and the NPS conclusion reached in Step 1 of the MRA regarding fish stocking should be reversed.

A fishery management program that is biologically based on limited stocking of nonreproducing trout would continue to provide high lakes recreational angling in park waters where fish stocking and wilderness angling are longstanding historical practices, while excessively reproducing fish populations in park high lakes are removed. Such a program would facilitate opportunities for angler education on conservation issues and reduce the risks of unsanctioned introductions of fish. Such a fishery management program has already been determined by the analyses documented in the EIS to conserve biological integrity of park lakes and their biota, leaving no permanent evidence of human presence and allowing natural processes to prevail.

Detailed comments on sections of the Worksheets for the MRA follow:

**Section A.** While there is no provision in the park's enabling legislation or the *Wilderness Act* that explicitly allows for fish stocking, there are also no provisions prohibiting it. Fish stocking itself does not fall under the 10 prohibitions defined in 4(c) of the *Wilderness Act*. Therefore, we believe very strongly that all analysis of *Fish Stocking* per se is unnecessary and inappropriate in sections A through F of the Worksheets. However, we fully agree with the need for an MRA for the *Fish Removal* aspect of the fishery management plan since the use of aircraft would likely be required. Aircraft use in wilderness is one of the prohibited uses noted in section 4c. WDFW believes the correct response for Section A is "Not Applicable" for fish stocking, although we reiterate that WDFW believes the correct approach is to not consider fish stocking as part of the MRA. The overall effects of fish stocking are more than adequately treated in the body of the EIS. Further, WDFW asserts that backpack stocking methods are the minimum tool for administering the stocking element of the fishery management plan, and backpack stocking of low numbers of trout fry has a minimal to undetectable impact.

**Section D.** As noted earlier, WDFW believes the MRA should not be applied to fish stocking per se. However, WDFW would answer "No" to this question. Too many, if not most, users of the remote, off-trail fish-bearing lakes in the wilderness fishery within the North Cascades Complex are unique, and suggesting "action" (stocking) in other wilderness areas is not applicable, and diminishes the value and importance of the North Cascades high-lake fishery. Within the Park, there are no lakes outside the Stephen T. Mather Wilderness that could be stocked to recreate the current opportunity, either in quality or quantity. WDFW, working cooperatively with NPS staff, has already greatly reduced the historic



extent of the stocked trout fishery in the wilderness lakes, as fully described in the body of the EIS. (For fish removal, the answer to this question is obviously ‘No,’ and WDFW supports the removal of the problem fish populations.)

**Section E.** WDFW recognizes that naturally barren lakes are not completely free from human manipulation if they harbor introduced fish, even low numbers of nonreproducing fish. However, WDFW has worked diligently over the past several decades and more recently with NPS technical staff to develop a responsible, biologically based fish stocking program that conserves biological integrity. A great deal of research now supports the premise that low numbers of nonreproducing fish can occupy certain lakes without causing significant deviations, or in some cases, even detectable changes in the structure or function of native high-lake ecosystems. These lakes show little evidence of human modification and are substantially free from the effects of modern civilization. Moreover, they still provide outstanding opportunities for solitude and primitive and an unconfined type of recreation, particularly a North Cascades wilderness fishing experience that cannot be met outside of the Park. Stocking effects are minor and temporary, and the periodic and dispersed nature of this fishery is unlikely to have major impacts on wilderness experience. Again, WDFW believes fish stocking should not be part of the MRA but is in agreement with the NPS analysis of the effects of fish removal on wilderness character.

**Section F.** With regard to the effects of fish stocking to the public purpose of wilderness, WDFW not only views fish stocking as an enhancement of the North Cascades Complex high-lake fishery, but as the fundamental support of this long-standing historic fishery, given the fact that WDFW agrees that most of the excessively reproducing fish populations in park high lakes should be removed. In providing this fishery, WDFW also places great value on the close relationship it has developed with the backcountry angling community. This relationship fosters ongoing efforts to educate anglers on conservation issues such as bull trout, amphibians, and the importance of biological integrity to high-lakes ecology. WDFW believes these efforts promote conservation throughout wilderness areas and reduce the likelihood of unsanctioned spread of nonnative fish species in wilderness areas. While scientific opportunity to study fishless ecosystems may be diminished in some individual lakes, there are still many such lakes where these opportunities exist. Opportunities to study recovery will also emerge as a collaborative and successful fish removal program moves forward. Moreover, the presence of low densities of nonreproducing fish does provide research opportunity for the study of how this important management approach affects native lake biota.

These points lead WDFW to the conclusion that fish stocking is the primary means by which this long-standing historical fishery is supported without significantly impacting other uses and, therefore, meets the minimum requirements for administering the Stephen T. Mather Wilderness.

**Conclusion.** WDFW does not believe fish stocking is a needed, or an appropriate, part of the Minimum Requirements Analysis because it is not prohibited under the *Wilderness Act*, and the paragraph on *Fish Stocking* should be removed from the MRA. However, we clearly agree that fish removal that uses any of the prohibited uses or actions within wilderness (such as aircraft use) requires the MRA, and that fish removal should occur in the agreed-upon lakes. Since park policy requires an MRA on all proposed activities, then the conclusion regarding fish stocking should be that limited, biologically based stocking of nonreproducing trout is necessary for the administration of the Stephen T. Mather Wilderness.

**Minimum Tool.** WDFW supports the use of helicopters as described in the body of the EIS to enable those fish removal projects requiring aircraft support. We are not aware of any other need to use any of the “10 Prohibited Uses” listed in section 4c of the *Wilderness Act*.

