

APPENDIX C. WILDERNESS MINIMUM REQUIREMENT GUIDE



ARTHUR CARHART NATIONAL WILDERNESS TRAINING CENTER

MINIMUM REQUIREMENT DECISION GUIDE

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

– Wilderness Act, 1964

Instructions and worksheets for the Minimum Requirement Analysis for actions, projects, and activities in Wilderness

The Minimum Requirement Decision Guide (MRDG) is designed for wilderness administrators to effectively analyze proposed actions to minimize negative impacts to wilderness character and values. It assumes a basic knowledge of the Wilderness Act of 1964, agency policies, and specific provisions of the wilderness designation legislation for each unit. This guide is suggested for wilderness administrators for the four federal land management agencies, the Bureau of Land Management, the National Park Service, the U.S. Fish & Wildlife Service and the U.S. Forest Service.

Section 4(c) of the Wilderness Act of 1964 prohibits certain activities in wilderness by the public, and, at the same time allows the agencies to engage in those prohibited activities in some situations. Section 4(c) states:

“... 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.”

Therefore, unless a generally prohibited use is allowed by specific unit designation, most of these activities are prohibited. However, in the above language, Congress acknowledged that there are times when exceptions are allowed to meet the minimum required administration of the area as wilderness.

How to Use This Guide

The MRDG displays a two-step process to assist in making the right decision for wilderness. First, the administrator must decide if a problem or issue in the wilderness unit needs administrative action, and then, and only then, the administrator must decide what tool/action/method, available from a range of identified alternatives, would minimize negative impacts on wilderness character and values. This guide includes templates for documenting both steps of the decision-making process, instructions for completing each step, and a cover sheet for signatures. The MRDG and future revised editions of the MRDG can be found on the Arthur Carhart National Wilderness Training Center page at www.wilderness.net.

STEP 1 – DETERMINING THE MINIMUM REQUIREMENT

SHEET 1

Is Administrative Action Needed?

What is the problem/issue that **may** require administrative action? Do not include methods or tools here. This sheet only refers to the issue or problem, not proposed action/project, or tools to be used. Include references from other legislation, policy, or plans, decisions, analyses, and how this issue is addressed in those documents.

Briefly describe the issue/problem:

At least 1,000 non-native axis deer (*Axis axis*) and fallow deer (*Dama dama*) inhabit wilderness, natural and pastoral areas of Point Reyes National Seashore. Both species were introduced to the area, before establishment of the Seashore, by a local landowner who purchased individuals from the San Francisco Zoo in the 1940s and 1950s for hunting purposes. The deer now inhabit the entire park and threaten to establish viable populations outside park borders. There is a need to address potential adverse impacts to native species from non-native deer, to maintain native ecosystems, to prevent spread of non-native deer outside NPS boundaries and to eliminate adverse impacts of non-native deer to agricultural lessees.

The following questions assist in analyzing whether the issue needs to be resolved in wilderness. Do not consider what tools are to be used here. Please circle **Yes** or **No**, and explain your reasoning:

1. Is this an emergency? **Yes** **No** If yes, follow established procedures for Search and rescue (SAR), fire or other plans/policies. If no, please continue.

2. Is this problem/issue subject to valid existing rights, such as access to valid mining claim, state lands, etc? **Yes** **No**
If no, continue with **Sheet 1**.
If yes, briefly explain here and then proceed to **Sheet 3**

3. Can the problem/issue be addressed by administrative actions outside a wilderness area? (For example, the administrative actions could be an information program at the visitor center or trailhead instead of a physical action in the wilderness, etc) **Yes** **No**
If yes, conduct actions outside wilderness. If no, continue with **Sheet 2**.

4. Is there a special provision in legislation (the 1964 Wilderness Act or subsequent laws), that allows this project or activity? (For example, maintenance of dams or water storage facilities, access to private inholdings, etc.) **Yes** **No** **If yes, Go to SHEET 3; if no, Go To SHEET 2.**

Is Administrative Action Needed? (Continued)

The following questions are provided to evaluate whether resolving the issue protects wilderness character and values identified in the Wilderness Act. Answer the questions in terms of the need to resolve the issue/problem. If the answer to most of the questions is yes, then the issue/problem probably requires administrative action. **Please circle Yes or No for each answer, and briefly explain.**

1. If the issue/problem is not resolved, or action is not taken, will the natural processes of the wilderness be adversely affected?
 Yes **No** **Why/How?**

Current population indices and recent range expansion of non-native deer suggest that at least one species (fallow deer) will continue to increase in number and range throughout wilderness areas of the Seashore. This invasive species will increasingly interfere with natural processes.

2. If the issue/problem goes unresolved, or action is not taken, will the values of solitude or primitive and unconfined type of recreation be threatened?
 Yes **No** **Why/How?**

The presence of non-native deer does not impact the values of solitude or quality of primitive and unconfined recreation.

3. If the issue/problem goes unresolved or action is not taken will evidence of human manipulation, permanent improvements, or human habitation be substantially noticeable ?
 Yes **No** **Why/How?**

Exotic deer in the wilderness ecosystem are evidence of human caused non-native species introduction. Because of their numbers and range, non-native deer are substantially noticeable.

4. Does addressing the issue/problem or taking action protect the wilderness as a whole as opposed to a single resource?
 Yes **No** **Why/How?**

Non-native deer likely impact the native ecosystem they inhabit on several levels, by consuming native vegetation, competing with native herbivores and causing local impacts to soils and water resources.

5. Does addressing this issue/problem or taking action contribute to protection of an enduring resource of wilderness for future generations?
 Yes **No** **Why/How?**

Addressing the problem of non-native deer substantially contributes to the restoration and protection of native wilderness ecosystems for future generations.

6. Is this an issue for reasons other than convenience or cost of administration?
 Yes **No** **Why/How?**

If administrative action is warranted, then proceed to Sheet 3 to determine the minimum tool or method for resolving the problem.

STEP 2: DETERMINING THE MINIMUM TOOL

SHEET 3: Determining the Minimum Tool: Fill out a Sheet 3 for each alternative.

Identify and describe a range of alternatives including those that utilize traditional tools and non-motorized and mechanized means as well as other methods.

Alternative A: No Action

This alternative would perpetuate non-native deer management practices since 1995, when ranger culling was discontinued. No non-native deer control actions would be undertaken. Monitoring activities, as outlined in Section 2.3 (Actions Common to All Alternatives) would continue in perpetuity.

Circle yes or no:

Does this alternative involve:

use of temporary road?	Yes	<input type="checkbox"/> No
use of motor vehicles?	Yes	<input type="checkbox"/> No
use of motorized equipment?	Yes	<input type="checkbox"/> No
use of motorboats?	Yes	<input type="checkbox"/> No
landing of airplanes?	Yes	<input type="checkbox"/> No
landing of helicopters?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
use of mechanical transport?	Yes	<input type="checkbox"/> No
creating a structure or installation?	Yes	<input type="checkbox"/> No
Other impacts to wilderness character?	Yes	<input type="checkbox"/> No

Describe the biophysical effects/benefits of this alternative:

In order to ensure protection of native species and ecosystems, continued monitoring would be an integral part of this action alternative. Helicopter use to monitor non-native deer populations and range may be required.

Describe the social/recreation effects/benefits:

None.

Describe societal/political effects/benefits:

None.

Describe health and safety concerns/benefits:

Use of helicopters to monitor non-native deer populations and range may result in some risk to NPS staff and visitors from aviation accidents.

Describe economic and timing considerations/benefits:

None.

Describe heritage resource considerations/benefits:

None.

Identify and describe a range of alternatives including those that utilize traditional tools and non-motorized and mechanized means as well as other methods.

Alternative B: Control of Non-Native Deer at Pre-Determined Levels by Agency Removal

Non-native deer populations would be controlled initially to a level of 350 for each species (700 total axis and fallow deer). Control of each non-native deer species to 350 animals would be accomplished with lethal removal by NPS staff specifically trained in wildlife sharpshooting. Efforts would be made to reach target levels in 15 years, to ensure continued presence of both species in the Seashore, and to reduce risks of range expansion beyond Seashore boundaries. Because the goal of this alternative would be to control axis and fallow deer at a specified level and not to eradicate them from PRNS, annual culling would continue indefinitely and total numbers of deer removed is incalculable. Where axis and fallow deer carcasses can be moved, they would be donated to charitable organizations as food for the needy. In cases where carcasses cannot be accessed, they would be left in place to recycle nutrients into the ecosystem. Monitoring activities would continue for the life of the Plan.

Circle yes or no:

Does this alternative involve:

use of temporary road?	Yes	<input type="checkbox"/> No
use of motor vehicles?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
use of motorized equipment?	Yes	<input type="checkbox"/> No
use of motorboats?	Yes	<input type="checkbox"/> No
landing of airplanes?	Yes	<input type="checkbox"/> No
landing of helicopters?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
use of mechanical transport?	Yes	<input type="checkbox"/> No
creating a structure or installation?	Yes	<input type="checkbox"/> No
Other impacts to wilderness character?	Yes	<input type="checkbox"/> No

Describe the biophysical effects/benefits of this alternative:

Long-term, lower non-native deer numbers would result in beneficial impacts to hydrologic processes, soils, vegetation, native wildlife and special status species.

Describe the social/recreation effects/benefits:

Short-term, public access to some areas could be restricted during lethal removals.

Describe societal/political effects/benefits:

None.

Describe health and safety concerns/benefits:

Use of helicopters and firearms may result in some risk to NPS staff and visitors.

Describe economic and timing considerations/benefits:

Reduction of non-native deer numbers before populations and range increase further will reduce the overall cost of the control program.

Describe heritage resource considerations/benefits:

None

Identify and describe a range of alternatives including those that utilize traditional tools and non-motorized and mechanized means as well as other methods.

Alternative C: Control of Non-Native Deer at Pre-Determined Levels by Agency Removal and Fertility control (Sterilants or Yearly Contraception)

Non-native deer populations would be controlled initially to a level of 350 for each species (700 total axis and fallow deer) using both lethal removal and fertility control. Efforts would be made to reach target levels in 15 years, to ensure continued presence of both species in the Seashore, and to reduce risks of range expansion beyond Seashore boundaries. The contraceptive program would incorporate the latest contraceptive technologies to safely prevent reproduction, for as long as possible, and with minimal treatments per animal. Because the goal of this alternative would be to control axis and fallow deer at a specified level and not to eradicate them from PRNS, annual culling and fertility control would continue indefinitely and total numbers of deer removed and treated with contraceptives is incalculable. Monitoring activities would continue in perpetuity.

Circle yes or no:

Does this alternative involve:

use of temporary road?	Yes	<input type="checkbox"/> No
use of motor vehicles?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
use of motorized equipment?	Yes	<input type="checkbox"/> No
use of motorboats?	Yes	<input type="checkbox"/> No
landing of airplanes?	Yes	<input type="checkbox"/> No
landing of helicopters?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
use of mechanical transport?	Yes	<input type="checkbox"/> No
creating a structure or installation?	Yes	<input type="checkbox"/> No
Other impacts to wilderness character?	Yes	<input type="checkbox"/> No

Describe the biophysical effects/benefits of this alternative:

Long-term, lower non-native deer numbers would result in beneficial impacts to hydrologic processes, soils, vegetation, native wildlife and special status species.

Describe the social/recreation effects/benefits:

Short-term, public access to some areas could be restricted during lethal removals.

Describe societal/political effects/benefits:

None.

Describe health and safety concerns/benefits:

Use of helicopters and firearms may result in some risk to NPS staff and visitors.

Describe economic and timing considerations/benefits:

Reduction of non-native deer numbers before populations and range increase further will reduce the overall cost of the control program.

Describe heritage resource considerations/benefits:

None

Identify and describe a range of alternatives including those that utilize traditional tools and non-motorized and mechanized means as well as other methods.

Alternative D : Removal of All Non-Native Deer from Point Reyes National Seashore (PRNS) and PRNS-Administered Lands of Golden Gate National Recreation Area (GGNRA) by Agency Removal

In Alternative D, all axis and fallow deer inhabiting the Seashore and the GGNRA lands administered by the Seashore would be eradicated by 2020 through lethal removal by NPS staff specifically trained in wildlife sharpshooting. Where deer carcasses can be moved, they would be donated to charitable organizations as food for the needy. In cases where carcasses cannot be accessed, they would be left in place to recycle nutrients into the ecosystem. Monitoring activities would continue until all non-native deer are eradicated, by 2020.

Circle yes or no:

Does this alternative involve:

use of temporary road?	Yes	<input type="checkbox"/> No
use of motor vehicles?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
use of motorized equipment?	Yes	<input type="checkbox"/> No
use of motorboats?	Yes	<input type="checkbox"/> No
landing of airplanes?	Yes	<input type="checkbox"/> No
landing of helicopters?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
use of mechanical transport?	Yes	<input type="checkbox"/> No
creating a structure or installation?	Yes	<input type="checkbox"/> No
Other impacts to wilderness character?	Yes	<input type="checkbox"/> No

Describe the biophysical effects/benefits of this alternative:

Long-term, eradication of non-native deer would result in beneficial impacts to hydrologic processes, soils, vegetation, native wildlife and special status species.

Describe the social/recreation effects/benefits:

Short-term, public access to some areas could be restricted during lethal removals.

Describe societal/political effects/benefits:

None.

Describe health and safety concerns/benefits:

Use of helicopters and firearms may result in some risk to NPS staff and visitors.

Describe economic and timing considerations/benefits:

Reduction of non-native deer numbers before populations and range increase further will reduce the overall cost of eradication.

Describe heritage resource considerations/benefits:

None.

What is the method or tool that will allow the issue/problem to be resolved or an action to be implemented with a minimum of impacts to the wilderness?

The Selected alternative is: **Alternative E.**

STEP 2: DETERMINING THE MINIMUM TOOL

Sheet 4: Selection of the Minimum Tool Alternative

Identify and describe a range of alternatives including those that utilize traditional tools and non-motorized and mechanized means as well as other methods.

Alternative E (Proposed Action): Removal of All Non-Native Deer from Point Reyes National Seashore (PRNS) and PRNS-Administered Lands of Golden Gate National Recreation Area (GGNRA) by a Combination of Agency Removal and Fertility control (Sterilants or Yearly Contraception)

In Alternative E, all axis and fallow deer inhabiting the Seashore and the GGNRA lands administered by the Seashore would be eradicated by 2020 through lethal removal and fertility control. Culling would be conducted by NPS staff specifically trained in wildlife sharpshooting. The contraceptive program would incorporate the latest contraceptive technologies to safely prevent reproduction, for as long as possible, and with minimal treatments per animal. Where deer carcasses can be moved, they would be donated to charitable organizations as food for the needy. In cases where carcasses cannot be accessed, they would be left in place to recycle nutrients into the ecosystem. Monitoring activities would continue until all non-native deer are eradicated, by 2020.

Circle yes or no:

Does this alternative involve:

use of temporary road?	Yes	<input type="checkbox"/> No
use of motor vehicles?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
use of motorized equipment?	Yes	<input type="checkbox"/> No
use of motorboats?	Yes	<input type="checkbox"/> No
landing of airplanes?	Yes	<input type="checkbox"/> No
landing of helicopters?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
use of mechanical transport?	Yes	<input type="checkbox"/> No
creating a structure or installation?	Yes	<input type="checkbox"/> No
Other impacts to wilderness character?	Yes	<input type="checkbox"/> No

Describe the biophysical effects/benefits of this alternative:

Long-term, eradication of non-native deer would result in beneficial impacts to hydrologic processes, soils, vegetation, native wildlife and special status species.

Describe the social/recreation effects/benefits:

Short-term, public access to some areas could be restricted during lethal removals.

Describe societal/political effects/benefits:

None.

Describe health and safety concerns/benefits:

Use of helicopters and firearms may result in some risk to NPS staff and visitors.

Describe economic and timing considerations/benefits:

Reduction of non-native deer numbers before populations and range increase further will reduce the overall cost of eradication.

Describe heritage resource considerations/benefits:

None