

Appendix B - Wilderness Minimum Tool

Minimum Requirement Process

Congress passed the Wilderness Act in 1964 “to secure for the American people of present and future generations the benefits of an enduring resource of wilderness... for this purpose there is hereby established a National Wilderness Preservation System to be composed of federally owned areas designated by Congress as "wilderness areas", and these 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.

The Wilderness Act established certain restrictions on activities permitted within wilderness to preserve its wild and untrammled nature and to ensure that it remain wild for future generations. Two explicit restrictions prohibited the construction of permanent roads and commercial enterprises within wilderness. Other generally prohibited activities include landing of aircraft, construction of temporary roads, the use of mechanized transport, the use of motorized equipment and the placement of structures. These restrictions are detailed in Section 4(c) of the act and apply to users and managers alike. The act did however; authorize certain narrow exceptions to these prohibitions for agencies administering wilderness areas. Specifically, agencies were permitted exception in the instance of emergencies pertaining to the health and safety of persons within wilderness, and actions necessary to meet the minimum requirement for preserving wilderness and protecting an enduring resource of wilderness.

The Minimum Requirement Analysis stems from the language in the act pertaining to actions that are minimally required to permit the agency to administer wilderness areas as wilderness. The minimum requirement applies only to the managing agency and not the public, which is explicitly bound by the restrictions of the act. The concept of Minimum Requirement flows directly from Section 4(c) of the Wilderness Act of 1964.

“Except as specifically provided for in the 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)

The Minimum Requirement Analysis is designed to assist program managers in making appropriate decisions affecting wilderness that are consistent with the Wilderness Act and National Park Service Management Policies.

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. Agency policy may also influence determination of minimum requirement. National Park Service policy direction on wilderness management is contained in Section 6.3.5 of the *Management Policies 2001*:

All management decisions affecting wilderness must be consistent with a minimum requirement concept. When determining minimum requirement, the potential disruption of wilderness character and resources will be considered before, and given significantly more weight than economic efficiency and convenience. If a compromise of wilderness resource or character is unavoidable, only those actions that preserve wilderness character and/or have localized, short-term adverse impacts will be acceptable. ...the method used

must clearly weigh the benefits and impacts of the proposal, document the decision-making process and be supported by an appropriate environmental compliance document.

The Minimum Requirement Analysis is composed of two parts; 1) the determination that the proposed action is necessary for administration of the wilderness area as wilderness (the minimum requirement), and 2) the selection of the best method for implementing the action with the least impact to wilderness (the minimum tool determination). The Wilderness Act and National Park Service Policy require that generally prohibited actions undertaken in wilderness complete a Minimum Requirement Analysis. This analysis is included as a part of environmental compliance documentation, generally as an appendix to an Environmental Assessment or Environmental Impact Statement.

The key point of the Minimum Requirement Analysis is that the proposed action is necessary for the administration of the wilderness area as wilderness. The philosophical dilemma with undertaking actions within wilderness is whether a generally prohibited activity with transitory impact will, in the long run, enhance wilderness and ensure the long-term viability of the area as wilderness. This is the decision that agencies and managers must make through the minimum requirement analysis and minimum tool determination. It is a measured determination that the proposed action will enhance the wilderness and natural character of the area and will enhance the likelihood that the wilderness values will be better maintained and preserved in the future.

Minimum Requirement Analysis

Minimum Requirement Analysis Worksheet

Point Reyes National Seashore

Proposed Action: Coastal Watershed Restoration (Glenbrook Crossing and Estero Trail Reroute)

Project Lead: Brannon Ketcham, Hydrologist

Date: 10/20/2004

PART A: Minimum Requirement (Should the action be done in wilderness)

1

IS THE ACTION AN EMERGENCY?

YES

Act according to established procedures

NO

Answer: Yes No

Explain:

Non-conforming structures present no immediate risk to health and safety. Restoration can proceed at the most ecologically beneficial time.

2

Does the Action conflict with legislation, wilderness goals or DFC?

YES

Do Not Undertake

NO

Answer: Yes No

Explain

The Point Reyes Wilderness Act amended the National Seashore enabling legislation by inserting specific reference to wilderness restoration as a goal. Section 4(c) of the Wilderness Act permits a minimum requirement/minimum-tool process for the administration of wilderness areas.

3

Can the action be accomplished with less intrusive means?

YES

Do It

NO

Answer: Yes No

Explain

Large non-conforming structures in wilderness were constructed with heavy equipment prior to wilderness establishment. The only feasible way to remove /restore these sites is with the use of excavation equipment.

4	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">Can the action be accomplished outside of wilderness?</div> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>YES</p> <div style="border: 1px solid black; padding: 5px; width: 150px;">Do it There</div> </div> <div style="text-align: center;"> <p>NO</p> <div style="text-align: center;">↓</div> </div> </div>	<p>Answer: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Explain</p> <p>The non-conforming structures are physically located within wilderness. Options for removing the non-conformities would be to either remove them or redraw the wilderness boundary to exclude them.</p>
5	<p>Proceed to PART B</p>	

PART B - Determining the Minimum Requirement

Responsive Questions for Minimum Requirements Analysis:

RESPONSIVE STATEMENT	
EFFECTS ON WILDERNESS CHARACTER	
How does the project or activity benefit the wilderness resource as a whole as opposed to maximizing one resource?	The final restoration goal is removal of this non-conforming structure from the Wilderness and restoration of natural hydrologic process. This project intends to achieve this objective. The proposed trail reroutes will be constructed to a more sustainable grade and scale that allows for maintenance to be performed consistent with Wilderness standards. This work would be considered an upgrade compared to existing trails.
If this project or activity were not completed, what would be the beneficial and detrimental effects to the wilderness resource?	<p>The Glenbrook Crossing road embankment is 280 feet long ranging from 70 to 100 feet wide at its base. The culvert is failed, with piping around it and a severe bow in its profile. The stream profile drops 15 feet at the site (11 from the outlet of the culvert to the channel below, and is a complete barrier to aquatic species. The proposed restoration will restore natural hydrologic process and hydrologic connectivity to the area. Proposed deconstruction of the facility will avoid catastrophic failure of the facility and associated impacts to the Wilderness resource.</p> <p>Trail reroutes will provide public access to the wilderness in a manner that is more sustainable in the long-term.</p>
How would the project or activity help ensure that human presence is kept to a minimum and that the area is affected primarily by the forces of nature rather than being manipulated by humans?	Completion of proposed work at this site would eliminate the necessity for maintenance of this non-conforming facility within the Wilderness area, and reduce maintenance requirements on the trail systems created through the project.
How would the project or activity ensure that the wilderness provides outstanding opportunities for solitude	The construction actions would likely take 30-60 days to complete. This would represent a short-term intrusion on the values of wilderness and solitude. In the long-term

is not consistent with long-term park and NPS management objectives. These sites impede or block access to watersheds that support, or have the potential to support, federally threatened coastal California steelhead and coho salmon. Muddy Hollow Dam and Limantour Beach dam restrict tidal action from more than five acres of coastal marsh habitat. The Glenbrook crossing is a non-conforming structure within the Philip Burton Wilderness and is a barrier to fish passage.

Prior to establishment of the Seashore, much of the entire designated Wilderness was part of intensive agriculture; including grazing and cropping and in many areas logging was common. Roads, ponds and other facilities were constructed and many still persist within the Wilderness. Many of these facilities, particularly roads and dams, have had a significant effect upon the natural functioning of the wilderness ecosystem. This has been especially evident in regard to hydrologic functioning, erosion and sedimentation and their impacts upon wildlife. Evaluation of physical conditions and process in the wilderness indicate that in many areas, particularly associated with roads and stream crossings, the pre-Wilderness land uses continue to influence and impede natural process, and thus the wilderness character and quality.

Point Reyes National Seashore enabling legislation (Point Reyes Act of Sept 13, 1962) tasks the National Park Service "...to save and preserve, for the purpose of public recreation, benefit, and inspiration, a portion of the diminishing shoreline of the United States that remains undeveloped". Subsequently, the Point Reyes Wilderness Act (PL 94-567) amended the Seashore's enabling legislation to include the following language "...*SEC. 7. (a) Section 6(a) of the Act of September 13, 1962 (76 Stat. 538), as amended (16 U.S.C. 459c-6a) is amended by inserting "without impairment of its natural values, in a manner which provides for such recreational, educational, historic preservation, interpretation, and scientific research opportunities as are consistent with, based upon, and supportive of the **maximum protection, restoration and preservation of the natural environment with the area**" immediately after "shall be administered by the Secretary."*

Clearly, preservation and restoration of natural processes at Point Reyes and within the Point Reyes (Phillip Burton) Wilderness have been given great importance by Congress. The Wilderness Act though, contains a dilemma between the mandates of remaining "untrammeled" but "natural". The issue becomes to what extent does restoration for naturalness conflict with untrammeled? If non-conforming intrusions to wilderness are permitted to perpetuate, with their continued effect upon ecosystem function, then the area is neither untrammeled nor natural. Actions taken to correct non-conforming, ecologically disruptive conditions may have a short-term affect upon wilderness character, but in the long-term will remove the "imprint of man" and increase naturalness.

Considering restoration within Wilderness includes weighing the impacts of implementation with those of leaving the site alone. Particularly with facilities, such as road crossings, culverts, and dams, the implications of these man-made facilities being a part of wilderness reduces the strength of the overall Wilderness objective of "untrammeled by man".

The Glenbrook Crossing site is located approximately one mile inside of the Wilderness Boundary. It is accessible on the Muddy Hollow Trail (former road). The 20-25 foot high road embankment, 5-foot diameter culvert and 11 foot outfall are considered non-conforming wilderness features. These facilities, the materials that allow them to remain, and the equipment used to construct them are considered non-conforming with the wilderness character.

In addition to the facility deconstruction, actions at Muddy Hollow and Glenbrook Crossing would require trail reroutes through the Wilderness. Current trails are primarily converted roads leading to large-scale drainage and maintenance issues. The proposed reroutes would be constructed to a scale more appropriate for wilderness, and more sustainable/compatible with the Wilderness designation.

Section 4(c) of the Wilderness Act of 1964 prohibits certain activities in wilderness but, at the same time allows the agencies to engage in those activities in some situations as long as it meets the minimum requirement for administration of the area as wilderness. 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.”

Through this Wilderness Act language, Congress acknowledged that there are times when exceptions are allowed to meet the minimum required administration of the area as wilderness. The minimum tool requirements analysis required determines the least impacting way of administering the wilderness. The wilderness manager may authorize any of the generally prohibited activities or uses listed in Sec. 4(c) of the Wilderness Act if they are determined to be the minimum necessary to do the job and meet wilderness management objectives.

Impacts to wilderness resources and wilderness character

The creation of a stable stream channel and floodplain and safe and stable stream crossing at Glenbrook Creek will result in a short-term impact to wilderness character. This impact will be manifested through the use of mechanized equipment and mechanical transport to the restoration site. Utilization of construction equipment will alter the ambient sound quality and the character of the local soundscape during the deconstruction/restoration phase of the project. An increase in airborne dust can be expected. Visitor access to the area will be restricted during the time when the deconstruction and restoration work is taking place for an estimated 30-60 days.

Impacts are expected to be of short duration and transitory. Impacts will be mitigated to the greatest extent possible.

Muddy Hollow

The Muddy Hollow Pond is within the Natural Zone and would not result in impacts to Wilderness resources. The trail reroute that would occur in conjunction with the restoration activities at the site would be located primarily within the Wilderness area.

The trail reroute would take advantage of existing slopes to construct a trail that would be sustainable in the long-term. Many trails in the park are adapted from old roadbeds and are problematic to maintain. Where new routes are installed, the construction techniques and scale are designed to allow for better trail maintenance in the long-term.

The proposed method of installing the trail reroute is through the use of a specialized trail building machinery. The use of this machinery would reduce costs of implementation, but create a trail that would be sustainable and could be maintained through the employment of hand crews. Currently, trails within these areas are former roads. The scale and condition requires use of mechanized equipment to maintain water bars and drainage devices along the most problematic sections. The use of mechanized equipment to create a sustainable trail would result in minor short-term adverse effects on wilderness, but in the long-term, the sustainable trail would reduce the need for mechanized equipment to actually maintain the facility. The long-term effect of this trail reroute on wilderness resources and values is considered beneficial.

Glenbrook Crossing

Glenbrook Crossing and the associated trail reroute are located approximately one mile into the Wilderness area from the proposed access at Upper Muddy Hollow parking area. The intent of

actions at this location are to remove a non-conforming structure from the Wilderness and restore natural hydrologic process to Glenbrook Creek.

The construction activities are estimated to take three weeks, requiring daily access to the site and work at the site. The contractor would be required to stage at the parking area and run a shuttle between the access and the site to minimize trips between the sites.

At the Glenbrook site, there is a 15-foot vertical elevation difference in the bed of the creek at the road crossing location. Under Alternative 2, the downstream reach would be treated in a similar manner as described in Alternative 1, though the extent of treatment may only extend 600 feet below the crossing, rather than 850 described in Alternative 1. The channel would be filled creating a 2-3% grade with constructed boulder/woody debris structures installed at or below grade to reduce potential downcutting and to provide structure in the newly created channel bed. Upstream, the restoration actions would include limited excavation upstream up to approximately 200 feet, as well as installation of two boulder/woody debris structures. The volumes excavated upstream would be balanced with the fill requirements necessary downstream.

This limited upstream excavation would reduce potential direct effects on existing riparian habitat and depend on this heavily vegetated area to provide some level of stability in the bed profile. Compared with Alternative 1, the work is less intrusive and depends on natural process to develop a level of stability. The tradeoff, however, is that the sediment transport levels would also be higher, as the system adjusts over time. The level of construction effort and manipulation is extensive, but is far less extensive than the approach described under Alternative 1. While the same equipment would be required, the duration of construction and extent of intrusion associated with construction activities are reduced from Alternative 1. In addition, Alternative 2 leaves much of the upstream riparian complex and allows for the channel to more completely evolve through natural dynamic processes. When considering these treatments and minimization of impacts where possible, the short-term impacts are considered minor at this site. In the long-term, the removal of non-conforming structure and restoration of natural process is considered beneficial.

Currently, a visitor on the trail does not necessarily realize the scale or effect of the former road facility on the creek or natural process. These actions, though extensive, would create opportunities to educate the public about wilderness, non-conforming structures, restoration, and protection. The construction activities would be a visible action that would prompt visitor interest and allow for dissemination of this information.

The trail reroute would be located upstream of the existing crossing, and would take advantage of existing slopes to construct a trail that would be sustainable in the long-term. Many trails in the park are adapted from old roadbeds and are problematic to maintain. Where new routes are installed, the construction techniques and scale are designed to allow for better trail maintenance in the long-term.

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Impact Mitigations

- Deconstruction/restoration use of mechanized construction equipment will be scheduled at times so as to minimize disruption to the public from noise and dust.
- All construction equipment will be equipped with approved mufflers and spark suppression devices.
- Construction equipment will be cleaned prior to arrival on site to reduce the potential importation of non-native weed species.
- Construction access will be flagged and limited to old roadbeds and non-riparian areas to the greatest extent possible. If access or staging must occur in wetland/riparian areas, access within these areas will be minimized to reduce impacts
- Construction sites will be watered as necessary to reduce fugitive dust.
- Educational materials explaining the restoration and the minimum requirement process for wilderness will be made available to park visitors at public contact points within the seashore. Notices and informational materials will be placed at normal access points to the construction zone to inform visitors of the rationale and duration of temporary closures.

Minimum Requirements Worksheets

Approvals	Signature	Name	Position	Date
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Recommended by:		Brannon Ketcham	Hydrologist	10/22/04
Approved by:		Don Neubacher	Superintendent	