

Intermountain Region  
Planning Desk Guide

**A Protocol for Identifying  
and Evaluating Areas for Potential Wilderness**

(sometimes referred to as Wilderness Suitability or Roadless Inventory and  
Evaluation)

**Updated 10/28/2004**

## **I. INTRODUCTION**

Over the next 5-10 years the national forests in the Intermountain Region will be revising their Forest Plans. The regulations implementing the National Forest Management Act require that, ...roadless areas within the National Forest System shall be evaluated and considered for recommendation as potential wilderness areas during the forest planning process,...(36 CFR 219.17, 1982). [Note: Regulations for the 2000 Planning Rule (36 CFR 219.27), not now in effect, require that "...all undeveloped areas that are of sufficient size as to make practicable their preservation and use in an unimpaired condition must be evaluated for recommended wilderness designation during the plan revision process."] Further requirements for evaluation and designation of wilderness are in Forest Service Manual (FSM) 1923, FSM 2320 and Forest Service Handbook (FSH) 1909.12, Chapter 7. Roadless and undeveloped areas are also important for the nonmotorized recreation, ecological and other values they help provide. Some areas also have substantial motorized trail recreation values.

In the past, individual Forests, with regional and national policy guidance, completed a roadless inventory independently. This sometimes resulted in inconsistencies between adjoining units in roadless inventories on similar land areas. Collaboration by adjoining forests will provide a more consistent approach to identifying areas with wilderness potential in Forest Plan revisions.

Over the last several years the Forest Service has proposed new roadless area management direction, new planning regulations, and a new transportation rule. Roadless area direction is under litigation, the new planning rules are still under review and the transportation rule is slowly being

implemented. These new policies affected roadless area inventory and evaluation and this protocol. Other changes to this protocol were made after public involvement and comment during the fall of 1999.

The user will note that the term “roadless inventory” is avoided. With the publishing of the Roadless Area Conservation Rule in 2001 the “inventoried roadless areas” of record were fixed in time and place. Our purpose is not to identify roadless areas for roadless management, but to strictly use the identification and evaluation process of this paper to meet our obligations to consider the wilderness potential of still undeveloped lands.

This protocol reflects the best planning advice on identifying and evaluating areas with wilderness potential during these turbulent times.

## **II. USE OF THESE CRITERIA**

The following criteria are a guide for all Intermountain Region National Forests to use when **identifying areas to be evaluated for wilderness potential during forest plan revision**. These criteria were developed to improve consistency across the Intermountain Region. These criteria are consistent with existing Forest Service Handbook and Manual direction. Wilderness suitability updates or validations previously completed for ongoing forest plan revision efforts need not be redone if these updates were consistent with FSH 1909.12 direction. If individual Forest situations warrant, Forests may deviate from these criteria with approval of the Regional Forester.

## **III. DEFINITIONS – From Transportation Rule, Manuals and Handbooks**

**Wilderness Area** - A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. Wilderness is further defined as an area of Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value (16 U.S.C. 1131). Only Congress may designate Wilderness Areas.

**Road** – a motor vehicle travelway over 50 inches wide, unless designated and managed as a trail. A road may be classified, unclassified, or temporary. (36 CFR 212.1)

**Classified Road** – Roads wholly or partially within or adjacent to National Forest System lands that are determined to be needed for long-term motor vehicle access, including State roads, county roads, privately owned roads, National Forest System roads, and other roads authorized by the Forest Service (36 CFR 212.1).

**Unclassified Road** – Roads on National forest System lands that are not managed as part of the forest transportation system, such as unplanned roads, abandoned travelways, and off-road vehicle tracks that have not been designated and managed as a trail; and those roads that were once under permit or other authorization and were not obliterated and/or decommissioned upon termination of authorization (36 CFR 212.1).

**Temporary Road** – Roads authorized by contract, permit, lease, or other written authorization, or emergency operation not intended to be part of the forest transportation system and not necessary for long-term resource management (36 CFR 212.1).

**Road Maintenance** – The ongoing upkeep of a road necessary to retain or restore the road to the approved road management objective (FSM 7712.3).

**Trail** – a commonly used term denoting a pathway for purposes of travel by foot, stock, or trail vehicle. (FSM 2353.05)

**Trail vehicle** – vehicles designed for trail use, such as bicycles, snowmobiles, trail bikes, trail scooters, and all terrain vehicles (ATV). (FSM 2353.05)

#### **IV. THE GENERAL PROCESS FOR IDENTIFYING POTENTIAL WILDERNESS AREAS**

The process to identify and evaluate undeveloped areas for wilderness potential includes three general steps. This process document focuses on step 1 of the three steps that are listed below:

1. Identify current undeveloped lands with wilderness potential;
2. Evaluate these lands for their wilderness values; and
3. Recommend in the Forest Plan certain areas with suitability or potential for wilderness designation, if any, to Congress.

Steps 2 and 3 are articulated in FSH 1909.12, Chapter 7.2 and 7.3, respectively.

The identification of potential wilderness should reflect all undeveloped lands on the National Forest that meet the criteria for wilderness. As such it should be comprehensive and include all lands that meet the criteria regardless of their classification during earlier rounds of planning.

The goal of Step 1 is to identify all lands that might have wilderness potential using the best current information available. Use the most current information as the starting point. For a few Forests, the last (and only) time lands were identified for wilderness potential may have been the Roadless Area Review and Evaluation (RARE II) Final Environmental Impact Statement (USFS, 1979). For other Forests, such an identification may have been accomplished as a part of the original Forest Plan and documented as an appendix to the DEIS or FEIS. Additional information may be available from project level NEPA documents that affected lands with wilderness potential.

There may be differences between the last forest-wide identification process and attempts to draw potential wilderness area boundaries with GIS. Early roadless area maps were generally hand

drawn, often at scales of 1:100,000 or greater. A refinement or validation step may be necessary when the existing roadless inventory information is updated with a draft GIS potential wilderness map at a larger scale. Boundary lines should be placed so they do not overlap or cross known roads, facilities, or other developments. It is possible new areas may be identified because of the precision of GIS or changes in the resource. This may be especially apparent in small land units contiguous to designated wilderness. All areas that meet the criteria for potential wilderness (listed below) should be identified for evaluation.

Lands "released" through the various state Wilderness acts, or allocated to other management prescriptions through the Forest planning process, can still be identified for evaluation as potential wilderness. Most State wilderness bills require a review of the "wilderness option" when Forest Plans are revised (California Wilderness Act of 1984, Utah Wilderness Act of 1984, Wyoming Wilderness Act of 1984, Nevada Wilderness Protection Act of 1989). Determine through the identification process if these areas still possess wilderness potential. If they do not meet the criteria do not identify them for evaluation as potential wilderness. If through this identification process they are determined to possess wilderness potential, then include them in the listing of areas to be evaluated. If only a portion of an existing area does not meet the criteria for potential wilderness, then the boundary should be redefined to exclude that portion, keeping the remainder of the area identified for evaluation as potential wilderness (providing it meets the criteria). It is important to be prudent and even-handed in applying the criteria, especially when modifying or dropping an area from further consideration as potential wilderness.

The results of the identification process will be documented and included in an Appendix of the EIS for the Revised Forest Plan.

The identification process steps are described in Section VIII.

## **V. IMPLEMENTATION GUIDELINES FOR IDENTIFYING POTENTIAL WILDERNESS AREAS**

1. An interdisciplinary team (IDT) should identify and evaluate potential wilderness areas for possible recommendation for wilderness designation.
2. All Forests should use GIS technology for the wilderness potential analysis. Data layers in GIS should follow existing protocols to provide consistency between Forests. Each data layer will be adequately described and attributed to determine acreage and perimeter of the areas identified with wilderness potential and to produce display maps. Use the best available data sources. Collect new data if necessary to meet the requirements of this process. Supplement data available in GIS with other data and/or information from other sources where needed to fill information gaps.
3. Forests should use common criteria for identification and evaluation of areas with wilderness potential (see Sections VII and IX), except where a unique situation warrants a special individualized criteria.

4. It is recommended that past roadless inventories (RARE II, Appendix C maps, and/or other recent roadless inventories) be digitized and kept on file for historical reference. At a minimum they would be useful for comparison of acreage changes and activity locations through the years.
5. Changes from past inventories, such as variances in acreages or locations, will be noted and explained during public review. Include a table similar to that shown below in your Forest Plan Appendix.

Roadless Area Name	RARE II or Forest Plan ID number	Current ID number	Acres from last inventory (indicate source and methodology in footnote)	GIS calculated acreages from same inventory	Differences in acres (Reductions/additions) due to mapping and calculating acres with GIS	Current Area with Wilderness potential using GIS (acres)	Net change in Acreage due to management actions during last planning period
Black Creek	17515	0417015	234,000	235,359	+ 1,359	215,000	- 29,000

6. Ares with wilderness potential should include all contiguous parcels that meet the inventory criteria regardless of public ownership. Generally, contiguous undeveloped areas will be analyzed by the Forest who took the lead during the first round of planning as shown in Appendix C of each Forest Plan. These shared undeveloped areas and the lead Forest for each will be identified in the Forest Plan Revision work plans submitted to the Regional Forester for approval. Lead forest is typically determined by the forest with the most acres, but other public issues, timing of planning effort, and capability may affect this determination. Analysis of areas contiguous to other federal ownerships should be negotiated with those agencies.
7. Undeveloped area boundaries should generally be established at a point 33' from the centerline of the constraining road, edge of development, facility or other feature which would disqualify an area for consideration as wilderness. (See discussion under Facilities for dispersed recreation impacts) This boundary location reflects the anticipated easment distance which will occur within road corridors and around facilities. Adjustments of this distance may be made on a case-by-case basis to reflect legal easments, cut/fill slope location or other definable distance criteria that would affect the boundary of an undeveloped area. The undeveloped area boundaries may be changed after the evaluation phase to reflect proposed wilderness recommendations to Congress (FSH 1909.12, 7.26). See Exhibit B on Boundary Delineation for a discussion of boundary location suggestions.
8. If a GIS buffer is necessary to display roads and boundaries offset from each other, use the minimum distance necessary to achieve the desired display results. Calculate acres based on the buffered polygon with the correct easment distance applied. Alternately, acreages may be calculated for each roadless area by determining the acreage of the polygon formed by the intersection of all road and/or "facility or influence of man's activities"

area segments surrounding the area. Modify the acreage within the polygon by the appropriate factor to reflect any easement distance or offset from centerline of roads. Typically assume 4 acres per linear mile of perimeter reflects a 33' easement. This final figure will be used as the undeveloped area acreage.

9. All areas meeting the criteria, regardless of their past designation or status, will be identified in the updated list of areas with wilderness potential.
10. Identify these areas with wilderness potential using a number sequence of Region (xx), Forest (xx), and area number (001-999). Areas on adjoining Forests and Regions shall have the same area number with the lead Forest number being used (FSH 1909.12, 7.13)
11. Narrow fingers, appendages, extrusions, and other polygons formed during the GIS analysis which do not meet the purpose of considering an area for potential wilderness may be excluded from the inventory on a case-by-case basis. Generally fingers or necks less than ½ mile in width can be used as possible adjustment points. Explain your rationale for removal of the area from the inventory in your documentation. See Section VIII. for additional information on criteria to use to exclude unsuitable lands from the inventory.

## **VI. PARTICIPATION BY OTHERS IN THE IDENTIFICATION OF LANDS WITH WILDERNESS POTENTIAL**

Experience has shown that the public, other federal agencies (particularly land management agencies such as the BLM), and state and local governments are strongly interested in the identification and evaluation of lands for their wilderness potential. Considering this, it is important to provide meaningful opportunities for public input. Furthermore, disposition of lands adjoining the National Forests can affect the identification of undeveloped areas on the National Forests meeting certain size constraints. Since this inventory is a process of identifying lands that contain potential wilderness characteristics based on existing conditions, an EIS is not needed. Inventories are categorically excluded from documentation in an EIS or an EA under 7 CFR 1b.3.

Although an EIS or EA is not required for this inventory, it is still important to provide opportunities for public input. These opportunities can be used to improve information and to gain understanding, and possibly acceptance, of what lands do/do not meet the criteria for lands to be considered for their wilderness suitability.

Consider preparing and releasing for public comment a “draft” document identifying all areas being considered for wilderness designation. In the document explain the history of past roadless inventory on your Forest, provide a map of each new area identified with wilderness potential (at a scale of no less than ½” per mile) showing major transportation routes, cities and adjacency to existing wilderness areas. Note changes in the inventory due to designation as wilderness, deletions from forest activities and additions through re-examination. (for an example see “Inventory of Unroaded and Undeveloped Lands on the Uinta National Forest”, Uinta National Forest, 2003)

Comments received can be helpful to identify issues, clarify evaluation criteria, and provide refinement for final roadless boundaries. All comments should be incorporated into the planning record.

## VII. INVENTORY CRITERIA

Chapter 7 of the Forest Service Planning Handbook (FSH 1909.12, 8/92) contains a set of inventory criteria. Criteria from the Forest Service Handbook are identified with a FSH 1909.12 notation. Explained most simply there are 3 types of criteria: size, presence of roads, and presence of other facilities or influences of man.

### A. SIZE

Criteria:

1. "They contain 5,000 acres or more" (FSH 1909.12).
2. "They contain less than 5,000 acres but:
  - a. Due to physiography or vegetation, they are manageable in their natural condition.
  - b. They are self-contained ecosystems such as an island" (FSH 1909.12).

Consider a specific noncontiguous area of less than 5,000 acres if the public or IDT identifies special features warranting its consideration.

- c. "They are contiguous to existing wilderness, primitive areas, Administration-endorsed wilderness, or roadless areas in other Federal ownership, regardless of their size" (FSH 1909.12).

### B. ROADS

Over the years, various roadless area inventories have defined "roads" in different manners. Original RARE I inventories often considered any two-track travelway a road and eliminated the area from the inventory. In the RARE II inventory, the roads/roadless area relationship was described as an area exclusive of improved roads constructed or maintained for travel by means of motorized vehicles intended for highway use. The RARE II criteria includes the word "constructed" in addition to the term "improved" included in the current Forest Service Handbook direction. Both terms imply something more than a two-track travelway that just developed over time. This suggests that user developed roads (i.e. not constructed as such) may not meet the definition of an improved road unless they have since been constructed or reconstructed (e.g. road prism established, drainage structures installed, etc.) and maintained.

With the release of the Transportation Rule (FSM 7710) road management on the National Forest System has been simplified. Roads, of any type, standard or maintenance level, are

categorized as either “classified” or “unclassified”. Classified roads are intended for long term use for National Forest purposes. Unclassified roads are not intended for long term use or were created through unauthorized means. Temporary roads are not intended for long term use and would not prevent consideration of the area for wilderness potential. For the purposes of evaluating areas for wilderness potential the presence of a classified road probably disqualifies that portion of the area from consideration as future wilderness.

Criteria:

1. Inventoried roadless areas do not contain classified roads. Previously, roadless areas "do not contain improved roads maintained for travel by standard passenger-type vehicles..." (FSH 1909.12). With the advent of the Transportation Rule, any road that is claimed for long term use and management as part of the forest development road system will disqualify an area from consideration as potential wilderness regardless of its current condition or maintenance level.
  - a. As a starting point for validation/update of the areas to be considered for wilderness suitability, “classified roads” will be interpreted to mean:
    1. All roads determined through roads analysis to be part of the Forest transportation system;
    2. All roads placed in the Roads database, given road mgt objectives, given a forest road number, signed, and ascribed a maintenance level.

Evaluate each route against this criteria. It is possible to use the Classified Road GIS Core data layer to identify all classified roads.

- b. Generally roads in Maintenance Level 2 would be considered "classified roads". Each route segment must be evaluated during roads analysis as to whether it meets road objectives for long term management. Adjust the Forest Road inventory as necessary using the appropriate process. In some cases Forests have entered routes which would qualify as "unclassified roads" into their Forest road inventories. Recode any segments found in the road inventory and roads data layer that do not qualify for consideration as a Forest Development Road as "unclassified roads". Do not exclude unclassified routes from the inventoried roadless area unless they are disqualified through other criteria described below.
      - c. Roads in Maintenance Level 1 should be reviewed to determine whether they will continue to be part of the classified road system. Those that would meet this criteria should be considered "classified roads". Just because a route is closed does not preclude it being a classified road. Apply the criteria for a road as if the route was open to make this determination. Remember that local travel planning efforts make road management decisions. This analysis just looks at existing management of roads to determine where undeveloped lands currently exist.

- d. In addition, roads not under the jurisdiction of the Forest Service but which pass through National Forest should be identified. These could include State, County, other Federal or private roads. These transportation routes typically will meet the definition of "classified roads". These routes would not be acceptable within areas being considered for wilderness.
  - e. Some Counties and States have exercised RS 2447 right-of-way claims for various classified and unclassified routes within the National Forests. When such claims have been formally made and documented, include these routes in your roads data layer until such time as the claim is resolved. Do not include unclassified roads in your roads layer where no formal RS 2447 claim has been made.
2. Areas being considered for wilderness can include "unclassified roads".
- a. Forests that have included "unclassified roads" in their road inventory should recode these routes to identify them as "unclassified roads" in the forest road atlas, INFRA, and their GIS roads layers. Follow procedures in FSM 7710. This would apply primarily to other vehicle travelways which were entered into the Forest road inventory as Maintenance Level 2 or 1 roads pending decisions on obliteration, closure, or permanent inclusion in the Forest Road system. These travelways would not disqualify an area for consideration as roadless. It is important that these routes do not show evidence of being constructed or maintained for vehicle use by standard vehicles.
  - b. Through road analysis determine if any unclassified roads should be considered for long term management as part of the forest transportation system. If an unclassified road is determined to be necessary for long term management then recode it to identify it as a "classified road", enter it into the INFRA roads database and assign it a road number. Include these routes in the roads layer. Note that this step may require separate action under NEPA as conversion of an unclassified route to a classified road is considered a management decision.
3. A temporary road is allowable in a an area considered for wilderness potential provided it has been obliterated, put back to original grade and/or is substantially unnoticeable. Temporary roads in current use during the inventory process should be evaluated based on the management prescription that applies to their eventual disposition. The roads analysis tied to the creation of the temporary road should indicate whether this route is intended for a one time or recurring use.
4. Some unclassified travel routes otherwise absent evidence of construction or improvement, may have some spot improvements. These travel routes will have to be evaluated on a case-by-case basis to determine if the intensity of activity is extensive enough to disqualify the route for consideration as part of the roads layer due to the improvement being beyond "substantially unnoticeable" as an adverse influence of man.

## C. PRESENCE OF OTHER FACILITIES OR INFLUENCES OF MAN

Some areas may not be entirely free of the imprint of man but may be fully capable of providing wilderness benefits to the public. Accordingly, the RARE II inventory process allowed past timber harvest activities, evidence of old mining, some range improvements, minor recreation sites, water related facilities, etc., to be included in roadless areas if the passage of time or their visibility allowed the area to appear natural (USFS, 1979). Forest Service Handbook 1909.12, Section 7.11a, also recognizes this. Areas may qualify for inventory as potential wilderness even though they include the features described below. Consideration must be given to the expected continued use, removal, and transportation to or from these facilities, structures, and features. The levels of impact shown are provided as general guidance only. Each specific activity or facility will need to be evaluated case by case. Consider each impact in the context of the whole area. The term “substantially unnoticeable” derives from the Wilderness Act and means that the average lay person would not recognize the impact or that the impact is minor in comparison to the larger landscape such that its impact is relatively slight or subordinate and not easily recognized.

### Criteria:

1. Airstrips and heliports. (FSH 1909.12)
  - a. Permanent facilities or facilities with mechanical earthwork that are not substantially unnoticeable could be excluded from areas with wilderness potential. Consider the extent of development, future use patterns, and desirability of this access. Airstrips have been allowed in wilderness in the past and would not automatically disqualify an area for consideration.
2. Cultural treatments involving plantations or planting where the use of mechanical equipment is not evident. (FSH 1909.12)
  - a. Exclude areas where terracing is not substantially unnoticeable and is a significant impairment to natural processes. Replanted natural disasters could be included in roadless areas. Congress has included these areas in the past, so consider eliminating only those areas with major environmental effects or high visibility.
3. Electronic installations, such as television, radio, and telephone repeaters, and the like, provided their impact is minimal. (FSH 1909.12)
  - a. Snow-Tel sites may be included provided their impact is minimal.
  - b. Exclude sites greater than one acre in size and/or serviced by improved roads or utility lines having a cleared right-of-way.
  - c. Electric Transmission lines with evidence of constructed access roads and/or right-of-way clearing that are not substantially unnoticeable will be excluded from roadless areas. However, transmission lines by themselves should not eliminate an area from consideration if there is no other lasting imprint of man's presence.

4. Areas with evidence of historic mining (50+ years ago). Do not include areas of significant current mineral activity, including prospecting with mechanical earthmoving equipment. The inventory may include areas where the only evidence of prospecting is holes that have been drilled without access roads to the site. (FSH 1909.12)
  - a. Areas where handwork mining occurred may be included.
  - b. Areas that otherwise meet inventory criteria if they are covered by mineral leases having a 'no surface occupancy' stipulation.
  - c. Areas covered by mineral leases that otherwise meet inventory criteria only if the lessee has not exercised development and occupancy rights. If and when these rights are exercised, remove the area, or portion affected, from the inventory unless it is possible to establish specific occupancy provisions that would maintain the area in a condition suitable for wilderness. (FSH 1909.12).
    - (1) Consider in evaluation, that leases do exist and could, but may not, be developed at some future date. Handle privately owned minerals similarly.
    - (2) Remove from the inventory only areas actually developed or occupied.
5. National Grasslands may have structures or evidence of vegetative manipulation resulting from past management practices. (FSH 1909.12)
  - a. Vegetation type conversions that are reverting to native vegetation with minimal evidence of cultivation may be included in the inventory.
  - b. Includes less than 1 mile of interior fence per section.
6. Areas of less than 70 percent Federal ownership, if it is realistic to manage the Federal lands as wilderness, independent of the private land. (FSH 1909.12).
  - a. Maintaining access to private lands should be a key consideration in evaluation. Evaluate each area independently.
7. Minor structural range improvements (FSM 2240.5) such as fences or water troughs. Exclude areas where nonstructural range improvements are readily visible and apparent. Areas with spray or burning projects are permissible if there is little or no evidence of the project. (FSH 1909.12)
  - a. Exclude structures if they are greater than one acre in size. Fences may be included. Nonstructural improvements, greater than 5 acres, where mechanical equipment use is obvious (e.g. chaining & terracing) should be excluded unless the site has recovered to the point where evidence of man's work is substantially unnoticeable.

8. Recreation improvements such as occupancy spots or minor hunting or outfitter camps. As a general rule, do not include developed sites. Areas with minor, easily removed recreation developments may be included. (FSH 1909.12)
  - a. Such minor developments include trail bridges, trail corduroy and puncheons, backcountry camps, FS administrative sites, cabins, and trailheads accessed by other unclassified roads, and low standard classified roads.
  - b. In general, man-made lakes and reservoirs greater than 5 acres in size, adjacent to other development excluded from roadless areas, or those accessed by a classified road should be excluded from roadless areas. Congress has included water impoundments in wilderness in the past. Consider the extent of the development, the access, the stability of water levels, and the naturalness of the shorelines. Natural water-bodies may be included in roadless areas, even if they are presently used by motorized watercraft.
  - c. Heavily used dispersed recreation areas along travel routes could result in moving roadless boundaries to the furthest edge of activity. For example, many Forests have the opportunity for dispersed recreation within a 150 - 300 foot corridor along roads. If this use is significant consider excluding these concentrated use zones from the inventory.
  - d. Consider the effect of concentrations of motorized trail networks. Eliminate if pattern of use and impact is not substantially unnoticeable on the roadless character of the area.
9. Timber harvest areas where logging and prior road construction are evident, ie. not substantially unnoticeable. Examples include those areas containing early logging activities related to historic settlement of the vicinity, areas where stumps and skid trails or roads are substantially unrecognizable, or areas where clearcuts have regenerated to the degree that canopy closure is similar to surrounding uncut areas. (FSH 1909.12)
  - a. Clearcuts, legacy and seed tree cuts that have regenerated to only sapling growth stage should be excluded. Partial cuts will be evaluated on an individual basis and included in inventoried roadless only if harvest activities are substantially unnoticeable.
  - b. Where prior road construction is evident but these routes may currently be closed to vehicle traffic, consider the effect of the level of development on the roadless character of the area. Exclude areas from consideration where development is not substantially unnoticeable.
10. Ground-return telephone lines, if a right-of-way has not been cleared. (FSH 1909.12)

- a. Uncleared lines greater than a 1/4 mile long, cleared utility corridors, operational pipelines, and operational ditches will all be excluded from the inventory.
  - b. Irrigation ditches which are currently in use or expected to be used during the planning period should be excluded from the inventory. Old ditches should be evaluated as to the amount of construction activity. Ditches where man's work is substantially unnoticeable may be included in roadless areas.
11. Watershed treatment areas if the use of mechanical equipment is not evident. The inventory may include areas where minor watershed treatment has been accomplished manually, such as small hand-constructed gully plugs. (FSH 1909.12)
- a. Exclude mechanical treatments greater than 5 acres in size. This includes gabions or terraces obviously constructed using mechanized equipment.
  - b. Contour felling would not preclude consideration of an area.

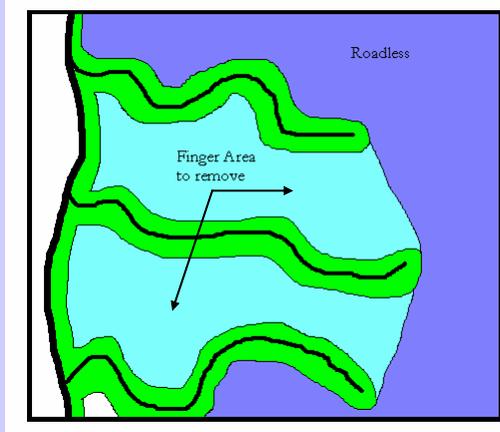
## VIII. INVENTORY OF AREAS WITH WILDERNESS POTENTIAL MAPPING PROCESS

A. The inventory mapping process is a two step process.

Step 1 - GIS rendering of polygons that meet the wilderness potential criteria for size, absence of roads, and impacts of man.	a. Overlay Roads layer(s) and "Facilities and Other Impacts of Man" layer(s) to create a basic roaded and undeveloped polygons map. Select all classified roads to establish boundaries for undeveloped polygons. Select area impacts and point features from "other Impacts" layer to modify undeveloped polygons.
	b. Apply size criteria to the undeveloped polygons to determine which polygons are greater than 5000 acres. Review polygons less than 5000 acres as needed to determine if they potentially qualify for further wilderness potential consideration. Include as appropriate.
	c. Identify and attribute all unroaded polygons that will be considered for further wilderness suitability analysis.
	Final Product - Unroaded and undeveloped lands map.
Step 2 - Refinement of the GIS polygons.	Clean up the undeveloped polygons to remove areas which do not meet the intent of the wilderness potential criteria, such as narrow fingers, heavily roaded areas which create ameoba-like polygons, and other appendages, intrusions, and extensions. See examples below.
	This process requires professional judgement to consider the merits of each piece. Engage the public in making these decisions through requests for comments of draft inventories. Describe your rationale for excluding areas from the roadless inventory.
	Final Product – Areas Identified for consideration as Potential Wilderness).

## B. Examples of GIS refinements

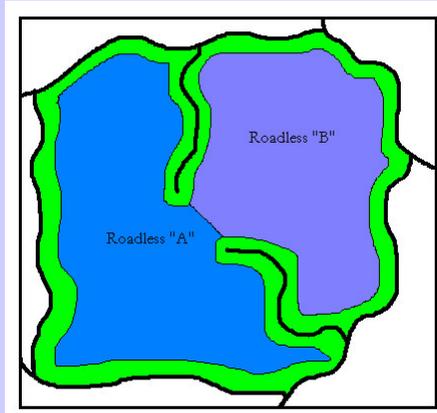
### Fingers



- Remove small fingers less than 1/2 mile across if they do not exhibit roadless character
- adjust to manageable boundary

Consider the effect roads may have on roadless character where the distance between roads is less than 1/2 mile. Consider whether the area retains a natural appearance with man's impact substantially unnoticeable.

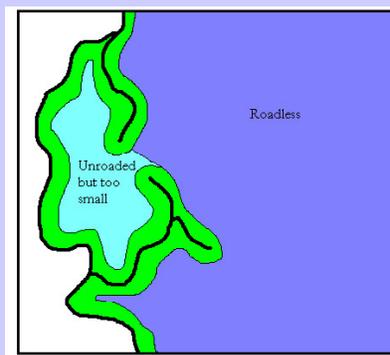
## Extrusions - large



- Determine character of connection
- Keep intact if both sides are >5000 acres and connector has roadless character
- Separate into two areas if common area is <1/2 mile or lacks roadless character

Consider whether the connection between the roads retains roadless character. Use the same 1/2 mile distance for fingers in your determination. Consider whether the area retains a natural appearance with man's impact substantially unnoticeable.

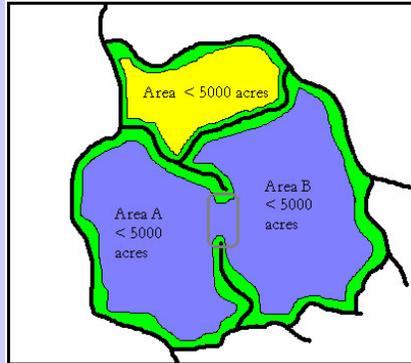
## Extrusions - small



- Determine size of extrusion and distance of opening (< 1/2 mile)
- Eliminate areas < 5000 acres that would not be considered on their own if they do have roadless character
- Consider effect to total area

Consider whether the area retains a natural appearance with man's impact substantially unnoticeable.

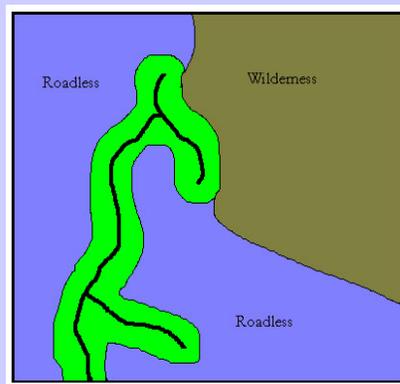
## Extrusions - mixed/small areas



- Determine size of each extrusion
- Consider area of connection if less than ½ mile
- Eliminate areas < 5000 acres that would not be considered on their own if they do have roadless character
- Consider effect to total area

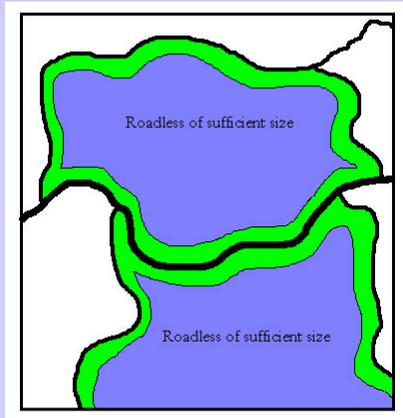
Consider areas that might be affected by narrow connections between roads. If the distance is less than ½ mile do the resulting polygons retain roadless character? If not, eliminate. If so, if the total area is greater than 5000 acres include in the inventory.

## Contiguous Areas



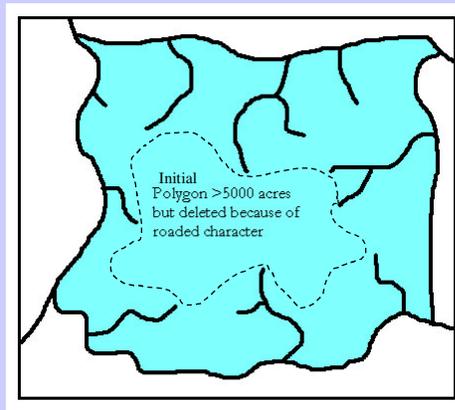
- Consider all contiguous areas regardless of jurisdiction
  - BLM wilderness
  - BLM study areas
  - BLM roadless
  - NPS lands

## Separated Areas



- Consider each if >5000 acres
- Consider effect of road corridor on roadless character
  - could unit be managed as one
  - could road be closed

## Roaded Network



- Eliminate areas < 5000 acres after deleting portions of the roaded network
- Assumes remaining area does not have roadless character and is < 5000 acres.

In heavily roaded areas an initial polygon greater than 5000 acres may be created that is adversely affected by the road network. But if after considering the effects of roads less than ½ mile distant, the resulting polygon of roadless land is less than 5000 acres eliminate the area from the inventory.

### C. Other Maps

A number of illustrative maps can be developed using the areas identified for wilderness as a base, but the undeveloped lands inventory itself should remain unchanged. For example: the undeveloped lands inventory may serve as a base for depicting varied alternatives for recommended wilderness proposals during wilderness evaluations. Factors such as manageable boundaries, existing public uses, and other criteria, as shown in Exhibit B, should be used to refine recommended wilderness boundaries within each undeveloped area.

It is important to remember that maps displaying varied recommended wilderness alternatives do not affect the underlying inventory of lands identified for wilderness potential. Such maps are just refinements of these areas to reflect options for wilderness designation as part of alternative development for the revised Forest Plan. Some specific cases include:

- during evaluation of each undeveloped area, boundaries may be adjusted to create more manageable units for consideration as potential wilderness. The end result would be alternative maps with different portions of undeveloped areas being considered for wilderness designation.
- the preferred alternative maps would show which portions of undeveloped areas will be considered for wilderness designation.

## IX. EVALUATION AND RECOMMENDATION

After the undeveloped lands inventory of areas with wilderness potential is complete, evaluation of these areas for potential wilderness designation is the next task. Follow the direction in FSH 1909.12 Chapter 7.2 to evaluate roadless areas against the tests of capability, availability and need. Document the results of your evaluation in an Appendix of the EIS for the Forest Plan. Engage the public in the evaluation of roadless areas for potential wilderness recommendation. Potential wilderness area boundaries may be revised as necessary, after the results of the evaluation are complete, to provide for a manageable recommended wilderness area (FSH 1909.12, 7.26).

Follow the direction for review and approval of wilderness recommendations as described in FSH 1909.12 Chapter 7.3. Hold public meetings and/or hearings as necessary. Include the following disclaimer statement found in FSH 1923.11 if the Forest Plan and FEIS make a recommendation for wilderness designation:

"This recommendation is a preliminary administrative recommendation that will receive further review and possible modification by the Chief of the Forest Service, the Secretary of Agriculture, and the President of the United States. The Congress has reserved the authority to make final decisions on wilderness designation. Therefore, this wilderness recommendation is not appealable under the agency's administrative appeal procedures."

## **X. MANAGEMENT OF AREAS IDENTIFIED FOR WILDERNESS POTENTIAL**

Management area prescriptions that overlay the areas identified for wilderness potential should specify what activities are allowable within the area. This would include any travel plan restrictions or allowances for dispersed camping, fuelwood gathering, and/or off road vehicle travel. Follow R4 guidance on activities that would be allowed within areas identified as recommended for wilderness during forest planning.

## **XI. UPDATES OR CORRECTIONS TO ROADLESS AREA INVENTORY**

Roadless area inventory boundaries are currently fixed due to the Roadless Area Conservation rule making. The official roadless maps were developed during this procedure. During Forest Plan revision Forests must retain the identity of these roadless area boundaries. These roadless area boundaries should be labeled "2001 Roadless Area Conservation Rule Boundary".

When or if, these roadless area boundaries will ever be adjusted to update them for past management actions is still being determined. Follow this protocol to identify current roadless lands that will be evaluated for their wilderness potential.

## **XII. REFERENCES**

Wilderness Act of 1964, (16 U.S.C. 1131-1136) Public Law 88-577, September 3, 1964  
Evaluation of Roadless Areas, 36 CFR 219.17  
Wilderness Evaluation, Forest Service Manual (FSM) 1923  
Land and Resource Management Planning Handbook 1909.12, Wilderness Evaluation, Chapter 7

EXHIBIT A  
NFMA REGULATIONS (1982)

The Secretary of Agriculture's regulations (36 CFR 219.17) for National Forest land and resource management planning (NFMA regulations) contain the following direction for evaluating "roadless areas" and recommending them as potential wilderness:

36 CFR 219.17 Evaluation of roadless areas

(a) Unless otherwise provided by law, roadless areas within the National Forest System shall be evaluated and considered for recommendation as potential wilderness areas during the forest planning process, as provided in paragraphs (a)(1) and (2) of this section."

(1) During analysis of the management situation, the following areas shall be subject to evaluation:

(i) Roadless areas including those previously inventoried in the second roadless area review and evaluation (RARE II), in a unit plan, or in a forest plan, which remain essentially roadless and undeveloped, and which have not yet been designated as wilderness or for nonwilderness uses by law. In addition, other essentially roadless areas may be subject to evaluation at the discretion of the Forest Supervisor."

(ii) Areas contiguous to existing wilderness, primitive areas, or administratively proposed wildernesses, regardless of which agency has jurisdiction for the wilderness or proposed wilderness."

(iii) Areas that are contiguous to roadless and undeveloped areas in other Federal ownership that have identified wilderness potential."

(iv) Areas designated by Congress for wilderness study, administrative proposals pending before Congress, and other legislative proposals pending which have been endorsed by the President.

(2) For each area subject to evaluation under paragraph (a)(1) of this section, the determination of the significant resource issues, which in turn affect the detail and scope of evaluation required by the Forest Service, shall be developed with public participation. As a minimum, the evaluation shall include consideration of:

(i) The values of the area as wilderness;

(ii) The values foregone and effects on management of adjacent lands as a consequence of wilderness designation;

- (iii) Feasibility of management as wilderness, in respect to size, nonconforming use, land ownership patterns, and existing contractual agreements or statutory rights;
- (iv) Proximity to other designated wilderness and relative contribution to the National Wilderness Preservation System;
- (v) The anticipated long-term changes in plant and animal species diversity, including the diversity of natural plant and animal communities of the forest planning area and the effects of such changes on the values for which wilderness areas were created

EXHIBIT B  
DELINEATING BOUNDARIES  
for areas proposed for Wilderness Designation  
during Alternative Development

After identifying all roadless lands through the roadless inventory, further refinement of boundaries may be warranted during the development of alternatives for the Forest Plan. If roadless boundaries are adjusted it is with the intent of creating manageable roadless units which would be considered for wilderness designation. When possible, boundaries for these roadless areas should follow natural or semipermanent human-made features to facilitate easy on-the-ground location and management.

- Use boundaries that are easy to define and locate, both on a map and on the ground.
  - \* Use natural features such as live streams, well-defined ridges or drainages and mountain peaks. Use human-made features such as roads, trails, dams, powerlines, pipelines and bridges. May also use previously surveyed lines or legally determined lines such as property lines and State boundaries.
  - \* Boundaries should not cross powerlines, state/county roads or major access roads.
  
- Use boundaries that would be easy to manage should the area later become wilderness:
  - \* The "cherry-stemming" of boundaries around roads into roadless areas should be avoided. Consider the removing the area affected by the cherry-stemmed road.
  - \* Exclude narrow fingers or appendages into private lands.
  - \* Roadless areas can contain less than 70-percent Federal ownership, but only if it is realistic to manage the Federal lands as wilderness, independent of the private land.
  
- Where possible, conform with terrain or other features that constitute a barrier to prohibited uses and external influences.
  
- Locate boundaries to avoid conflict with important existing or potential public uses outside the boundary, which may result in nonconforming demands on the area if it were to become wilderness.
  
- Boundaries should be located to provide a reasonable and appropriate access for wilderness trailhead facilities.

When adjusting boundaries of existing RARE II areas to eliminate portions that no longer meet roadless criteria, locate the boundary to exclude the non-conforming area using natural or human-made features.

At this stage of analysis it is not necessary to be concerned with precise boundary descriptions, this will come later if the area is designated Wilderness. Simply consider following the road R-O-W, powerline clearing, and other features. For an area that crosses administrative boundaries (ranger districts, forests, States), treat it as one area for calculating acres and improved road densities and assign it one name and number.

Further guidance is provided in Section 7.26 - Boundary Adjustment Guidelines in FSH WO Amendment 1909.12-92-1.

EXHIBIT C  
MODEL TEMPLATE  
Appendix C - Roadless Area Evaluation

Instructions:

Describe the unique characteristics and Wilderness features for each roadless area.

Roadless Area Name:	Number of Acres:
Previous Name(s):	Change in size (acres) since last inventory:
Date of inventory:	Date of last inventory:
Roadless Area Number:	District:

Section 1. - Description of the Area (provide a narrative description for these categories)

Location and Access:  
Geography:  
Topography:  
Vegetation:  
Ecosystem Type:  
Current Uses (including RVD's):  
Appearance:  
Surroundings:  
Attractions:  
-Wildlife  
- Scenic Landmarks

Section 2. - Capability (provide a narrative description for these categories)

Manageability and Boundaries:  
- Mitigation by boundary  
change  
- Effect of size  
Natural Integrity:  
Natural Appearance:  
Opportunities for Solitude:  
Opportunities for Primitive  
Recreation:  
Challenging Experiences:  
Special Features:  
- Threatened, Endangered, or  
Sensitive Species and other  
Wildlife  
- Historical and Scientific Study

Section 3. - Availability (provide a narrative description for these categories)

Tradeoffs with other Uses:

Resource Potentials:

- Recreation:
- Wildlife:
- Water:
- Livestock Operations:
- Ecological:
- Timber:
- Minerals:
- Cultural:
- Land Use Authorizations:

Management Considerations:

- Fire:
- Insects and Disease:
- Private Lands:

Section 4. - Need (provide a narrative description for these categories)

Nearby Wilderness and their use:

Distance from Population Centers:

Interest by Proponents, including Congressional  
Public Input

Need for ecosystem representation in the NWPS

Other Public involvement/scoping results

Roadless Area Map

Provide a map at an appropriate scale of the inventoried roadless area. Include identifying features, main drainages, road systems and other locational information. Include a map legend with the minimum following items:

- a. Roadless Name and Number
- b. Roadless Boundary
- c. Wilderness Boundaries (if any)
- d. Boundary changes from last inventory
  - a. New, not previously identified
  - b. Roadless in past, but not now
  - c. Roadless in past, designated by Congress as Wilderness
- e. Major roads
- f. Major Streams
- g. Forest Boundary
- h. County Boundaries
- i. Vicinity Map of Forest with roadless area identifier