S.Morton, R-1 , 10/2/98

DRAFT
FOREST PLAN PROTOCOLS FOR WILDERNESS STEWARDSHIP

TITLE OF TASK: **WILDERNESS STEWARDSHIP PROTOCOL**

TASK TEAM LEADER: **STEVE MORTON**

PROTOCOL DEVELOPMENT TEAM MEMBERS:

NAME	DISCIPLINE	UNIT
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PRODUCT DESCRIPTION (Summary/Abstract):

This Wilderness protocol provides guidance for Forest Plan revision

DATE PRODUCT DELIVERED:

Jan 1998 - Team Technical Review Document

May 1998 - Final Review (Forests and EM Core Team)

June 1998 - Initial PPG Presentation

Oct 1998 - PPG Followup Presentation and Approval

PRODUCT IMPORTANCE:

The purpose of the wilderness protocol is to:

- Assure Forest Plan revisions adequately consider wilderness issues.
- Provide more specific direction to assist Ranger Districts with wilderness decisions.
- Provide a visitor use allocation to outfitted and non-outfitted publics.

THE PRODUCT WILL BE USED IN:

Watershed-Scale Analysis: Limited Use

Landscape (Planning Unit) Assessments: Limited Use

Forest Plan Revisions: Yes....primary use

Production of Goods and Services (Pathway 1): Allocation of user days as necessary

SCALE IN WHICH THE PRODUCT IS USED:

Protocol should be used across administrative lines to achieve consistency between Forests and Districts.

RELATIONSHIP TO BROADER SCALE ASSESSMENTS (CRB, Northern Great Plains, Etc.):

I am not aware how it relates to the broader scale assessments.

EXTERNAL INVOLVEMENT:

The protocol has been discussed among Missoula Area Wilderness Forum members, including: University of Montana Wilderness Institute, Aldo Leopold Wilderness Research Institute, Arthur Carhart Wilderness Training Center, Wilderness Watch, Montana FWP to obtain their feedback. This is continuing.

RECOMMENDATION OF APPLICATION OF PRODUCT (Consistency, legal requirements, etc.):

Describe circumstances where application of product is required versus where it is optional.

Forests may elect to use all or part of the protocol as determined by a review of their management situation. Forest wilderness personnel and affected publics should be involved to assess need for revision.

Identify if there is a need to re-examine existing inventories or assessments in light of this new product.

Yes, there is a general need to revisit earlier assessments

ACCURACY and/or PRECISION:

Validity: Monitoring has occurred during the years since the first round of Forest Planning. The data should be compiled and used during the revision. It is recognized that visitor use data gathered in Wilderness may not have high reliability in many cases, but will have to suffice until improved.

Qualifications as to use of product: Unknown

DETAILED DESCRIPTION OF PRODUCT:

Organization of Forest Plan Direction: Providing wilderness direction in the forest plan is a step-down process. It begins with revisiting the Analysis of the Management Situation to determine its current validity. If not, it needs to be updated. Scoping needs to be redone and management concerns and public issues identified. Alternatives will be crafted later to respond to the issues in varying degrees.

In keeping with the R-1 Forest Plan prototype (which proposes that goals, objectives and standards be applied at 3 levels - forest, planning unit and planning subunit), the first level of the step-down process is providing forest-wide wilderness direction. This direction should apply to all wilderness areas on a Forest. Keep in mind that some wilderness areas may have unique characteristics or use zones which might require additional wilderness-specific management goals, objectives and standards to be applied at the planning unit (or multiple planning unit scale if the wilderness encompasses more than one planning unit). It is important to stress the importance of wilderness management consistency when the same wilderness encompasses more than 1 forest or Forest Plan revision zone.

Within each wilderness there may exist several zones, ranging from the portal or transition zone to succeedingly more primitive settings. It is common to use two to four zones, termed transition, semi-primitive, primitive, and pristine, in increasing order of remoteness. These zones would be mapped and the specific goals, objectives and standards applicable to that zone would be summarized for the planning unit(s). Direction for each zone only adds or changes desired conditions, standards and guidelines to differentiate from the step above it, in order to achieve a desired result. The desired result is normally one of providing a setting for increasing opportunities for solitude and challenge, two of the more scarce outcomes afforded the wilderness visitor today. Physical-biological conditions may also require a change in the desired setting. For example, if unique cultural resource sites or clear evidence of effects on threatened or endangered species are documented, it may require a special zone.

Thus, the forest plan direction follows this outline:

1. Forestwide Wilderness Management Direction
    - A. Desired future condition
    - B. Goals
    - C. Objectives
    - D. Standards
    - E. Guidelines
    - F. Monitoring
2. Planning Unit(s) Wilderness Management Direction
    - A. Desired future condition
    - B. Goals
    - C. Objectives
    - D. Standards
    - E. Guidelines

F. Monitoring

At the planning unit level, repeat A-F for each of several zones, if used. Not all wilderness areas afford the opportunity for all zones, based on size, proximity to urbanization, current use patterns, and the role of the particular wilderness in the broad spectrum of wilderness areas in the National Wilderness Preservation System. See Appendix B for definitions of terms and Appendix C for sample statements for items B-E.

Wilderness Capacity Determination: 36 CFR 219.18 (a) states "Provide for limiting and distributing visitor use of specific areas in accord with periodic estimates of the maximum levels of use that allow natural processes to operate freely and that do not impair the values for which wilderness areas were created."

FSM 2323.13g states "...The plan must address the type, number, and amount of recreation use that is to be allocated to outfitters." (the outfitted public)

These two sources of direction require that thought be given to the concept of capacity, with at least broadly stated qualitative and/or quantitative allocations resulting from the analysis.

Recreational use of wilderness is increasing. As population grows, the societal segment seeking more primitive settings will continue to increase. As crowding and evidence of use increases, these visitors are displaced to less crowded areas and are replaced by people willing to accept that setting. As use continues to increase, the cycle repeats itself again and again. Eventually, the resource and social conflicts escalate. Proper planning must anticipate and minimize these situations, preferably before they get out of control.

Capacity determinations originate from desired management conditions, goals, objectives and standards/guidelines. These provide a picture of the setting which leads to an expected experience. When several zones are utilized in wilderness direction, each will normally have a different capacity. It is the Forest Plan alternatives which display the different amounts of each zone in various mixes which in turn aggregates to differing total capacities by alternative. An alternative which emphasizes larger acreages of pristine conditions and low use levels will have considerably less capacity than an alternative which allocates larger acreages to a semi-primitive catagory.

For suggested methods of determining capacity, see Appendix E.

Appendix A

National Guidance for Planning the Stewardship of Classified Wilderness

1. The Wilderness Act of 1964.

2. 36 CFR 219.18 Wilderness Management: "Forest planning shall provide direction for the man agement of designated wilderness and primitive areas in accordance with the provisions of 36 CFR part 293. In particular, plans shall---(a) Provide for limiting and distributing visitor use of specific areas in accord with periodic estimates of the maximum levels of use that allow natural processes to operate freely and that do not impair the values for which wilderness areas were created; and (b) Evaluate the extent to which wildfire, insect, and disease control measures may be desirable for protection of either the wilderness or adjacent areas and provide for such measures when appropriate."

3. 36 CFR 293 Wilderness-Primitive Areas, referred to in 2. above, codifies the Wilderness Act and provides direction and subsequent license to accomplish the objectives contained therein.

293.2 Objectives: "Except as otherwise provided in the regulations in this part, National Forest Wildernesses shall be so administered as to meet the public purposes of recreational, scenic, scientific, educational, conservation, and historical uses; and it shall also be administered for such other purposes for which it may have been established in such a manner as to preserve its wilderness character. In carrying out such purposes, National Forest Wilderness resources shall be managed to promote, perpetuate, and where necessary, restore the wilderness character of the land and its specific values of solitude, physical and mental challenge, scientific study, inspiration, and primitive recreation. To that end: (a) Natural ecological succession will be allowed to operate freely to the extent feasible. (b) Wilderness will be made available for human use to the optimum extent consistent with the maintenance of primitive conditions. (c) In resolving conflicts in resource use, wilderness values will be dominant to the extent not limited by the Wilderness Act, subsequent establishing legislation, or the regulations in this part."

293.3 Control of Uses: (a)" To the extent not limited by the Wilderness Act, subsequent legislation establishing a particular unit, or the regulations in this part, the Chief, Forest Service, may prescribe measures necessary to control fire, insects, and disease and measures which may be used in emergencies involving the health and safety of persons or damage to property and may require permits for, or otherwise limit or regulate, and use of National Forest land, including, but not limited to, camping, campfires, and grazing of recreation livestock."

4. Forest Service Manual (FSM) 2322 --Wilderness Planning. "Wilderness management direction is prepared as a part of the forest planning process as required by 36 CFR part 219 and FSM 1922. Planning is also done in compliance with the National Environmental policy Act (FSM 1950 and

FSH 1909.15). Implementation of the forest plan is accomplished through development of implementation schedules that include projects and activities designed to achieve and comply with the management standards and guidelines established for the designated wilderness."

2322.01 - Authority. Authority to conduct wilderness management planning is found in the National Forest Management Act (16 U.S.C. 1600) and 36 CFR 219.

2322.02 - Objectives. 1. "Ensure that the wilderness resource is fully integrated into the Forest Land and Resource Management Plan. 2. Ensure that other resources and activities within each wilderness are coordinated and in harmony with the wilderness resource."

2322.03 - Policy.

1." Management direction for each wilderness must be stated in the forest plan as management area prescriptions with associated standards and guidelines. Each wilderness is unique as established by law; therefore, each will be identified as a separate management area.

2. The wilderness component of the forest plan shall include, as a minimum, the following:

a. Management direction in accordance with 36 CFR 219 and 36 CFR 293.

b. Display of the relationships and coordination between the wilderness resource and other resources and activities present in the wilderness, as well as activities outside of wilderness that affect the management of the wilderness. Resources and other elements to be addressed include: recreation (including visitor education), forest cover, forage, fish and wildlife, federally listed threatened or endangered flora or fauna, domestic livestock, soil and water (including weather modification), minerals, historical and cultural resources, fire, land ownership, insect and diseases, air quality, other agency use, the trail system (including trailheads), signing, communication, and research.

c. Monitoring requirements for determining whether prescriptions, standards, and guidelines are met.

3. Individual wilderness management plans completed prior to the writing of the forest plan may be incorporated as an entity into the forest plan if they:

a. Have been prepared in accordance with the NEPA process (FSM 1950).

b. Are considered current and valid.

c. Are appropriately referenced to and discussed in the forest plan.

d. Provide at least the same level of direction and guidance as would be found in the completed forest plan.

4. Management direction shall be consistent for each wilderness that occurs in more than one State, Region, or National Forest.

5. In some instances, the law designating a specific wilderness requires preparation of a wilderness management plan. These specified plans are integrated into the forest plan when completed before the forest planning process. If a wilderness plan is required subsequent to adoption of the forest plan, the required plan should not duplicate information contained in the forest plan. It should tier from and ultimately be appended to the Forest Land and Resource Management Plan."

5. FSM 2323.13g - Outfitter and Guide Operations, states "Address the need for and role of outfitters in the forest plan. The plan must address the type, number, and amount of recreation use that is to be allocated to outfitters." (the outfitted public).

From the sources identified above, it is apparent that sufficient latitude exists to tailor appropriate wilderness direction to any specific issue or condition in any of the Region's wildernesses. Wilderness stewardship and forest plan direction should, as their ultimate goal, provide a clear picture of a desired future condition against which to monitor, help resolve specific issues, and improve current conditions needing improvement.

Appendix B

Wilderness Definitions

Desired Future Condition: The desired future condition (DFC) for wilderness has its roots in the language of the Wilderness Act(s), the Code of Federal Regulations (36 CFR 293), and the Forest Service manual (FSM) chapter 2320.

Forest-wide DFC (brief example): "The Wilderness Areas are preserved and protected in their natural condition, with ecological structure and function intact to the greatest extent of any lands on the Forest. The wilderness is valued as a natural laboratory for learning from the natural and historical treasures it contains. It offers the visitor the opportunity to find varying degrees of solitude and rely on primitive skills in a challenging setting."

> (Note: The "natural condition" element of the DFC should essentially traverse the entire Wilderness, covering all zones. It is the opportunity to experience solitude and challenge which grows as one moves into the more remote settings.)

Transition zone DFC: "This zone extends from the wilderness portal into the Wilderness, normally along a principal travel route. It may be the only portion of Wilderness that many visitors traverse, or the zone through which the visitors pass on their way to the interior of the wilderness. Larger numbers of people may be encountered, but the basic natural values should remain unmodified. When located near to populated areas, the transition zone may serve as a destination for day hikers simply seeking a healthful outdoor experience with nature."

Semi-Primitive Zone DFC: " Moving beyond the transition zone, the wilderness character sharpens. Trails become quieter and the visitor has a sense of leaving the urban areas far behind, while entering into the challenges of self-reliance. The natural world is unfolding its sights and sounds around each bend in the trail. In this zone it is likely a night's stay will be necessary."

Primitive Zone DFC: "Pushing farther into the wilderness, on or off trails, the visitor will normally encounter other people only occasionally. Trips of several days minimum are normally required. "

Pristine Zone DFC: " This is the zone which offers the most remote experience available in wilderness. It requires more effort, time, and skills to negotiate. Visitors should expect to generally be alone with their group. Off-trail travel is common and the few trails traversing the pristine zone may be infrequently maintained. In larger Wildernesses, experiencing much of the pristine zone may require a week's time or more. "

Appendix C

Examples of Wilderness Direction

Wilderness Goals: Relate to broad outcomes.

Examples of Forest-wide Wilderness Goal Statements:

- "Manage wilderness so that ecosystem structure and function are the result of natural processes within the range of natural variability and succession."
- "Provide outstanding opportunities for solitude or a primitive and unconfined recreational experience."
- "Protect and preserve historical and cultural resources found in Wilderness."

Wilderness Objectives: More specific result to be achieved.

Examples of Forest-wide Wilderness Management Objectives:

- "Protect the opportunities for challenge and risk."
- "When appropriate, restore the effects of past human damage to resources, places, or natural processes."
- "Identify current threats to wilderness character, outside or inside the Wilderness, and take appropriate action to reduce or eliminate it."

Wilderness Standards: Standards are statements written to achieve the desired condition. They are based in law, regulation, policy, and/or courses of action stemming from a decision by a deciding official. Achievement of standards is mandatory in order to comply with forest plan direction.

Examples of Forest-wide Wilderness Standards:

- Timber Management: "Commercial timber harvest is prohibited."
- Minerals Management: "Wildernesses are unavailable for oil and gas leasing."
- Structures: "Prohibit man-made structures except those needed for resource protection, those listed as historic, or determined to be the minimum necessary for administration."
- Fire Suppression: "Tractors are prohibited unless approved by the Regional Forester."

Wilderness Guidelines: Guidelines are statements which describe preferred levels of accomplishment, courses of action, or acceptable levels of impact. They may specify a threshold which, when exceeded, will move the wilderness away from the desired future condition.

Examples of Forest-wide Wilderness Guidelines:

Recreation:

- "Maximum party size is 20 people and 20 head of livestock, except by permit."
- "There should be no more than 3 other parties encountered per day, 80% of the time."
- "Camping is not permitted closer than 100 feet from the shores of lakes."

Fire:

- " Emphasize the role of natural fire. Management ignitions may be approved where natural ignitions cannot be allowed to play their natural role."

Exotic Plants:

- "Integrated pest management strategies are appropriate, utilizing all available tools to minimize infestations. Treatments which accomplish objectives with the least effect on all wilderness values are preferred."

Range:

- "Utilization by recreation livestock will not exceed 40% by weight on bunchgrass."

Wilderness Indicators are specific attributes which are measurable, observable parameters which can by monitored, i.e. number of encounters, number of campsites visible from a place, forage utilization, etc.

Wilderness Thresholds are the points at which indicator-based monitoring shows a standard or guideline is not being met. Exceeding a threshold will normally result in an appropriate management action. From 1-3 thresholds (increasing levels) are appropriate.

Example of Thresholds:

Level 1 Actions Appropriate	Level 2 Actions Appropriate	Level 3 Actions Appropriate
Guidelines not exceeded in the past 3 years.	Guidelines may be exceeded up to 25% of the time	Guidelines may be exceeded more than 25% of the time.

Management Actions are techniques, responses, or regulations which are put into effect in order to maintain or improve on-the-ground wilderness conditions. They may be triggered when thresholds are exceeded, moving from more indirect methods to more direct controls.

Example of Management Actions - Recreational Stock Use

Indicator	Level 1 Actions	Level 2 Actions	Level 3 Actions
Utilization of bunchgrass will not exceed 40% by weight.	Educate visitors on proper use of recreation stock.	Restrict grazing within areas that exceed standards to 1/3 of the grazing season.	Require certified supplemental feed all season.

Example of Thresholds - Recreation Stock Use

Level 1	Level 2	Level 3
Guidelines not exceeded and the trend is stable.	Utilization of bunchgrass is 40-55% in 2 of the past 3 years. The trend is downward	Utilization is greater than 56% in 2 of the past 3 years and rangeland health is declining

Appendix D

RELATIONSHIP OF PLANNING/MANAGEMENT ZONES

Wilderness planning can utilize the Recreation Opportunity Spectrum (ROS) classification system to help manage various outcomes. The Wilderness Recreation opportunity Spectrum (WROS) provides a refinement of the ROS for use in wilderness. The Limits of Acceptable Change (LAC) opportunity classes do the same. Others have suggested the concept of Wilderness Resource Zones (WRZ's), combining elements of naturalness with desired social objectives. From experience we have learned that the naturalness objectives tend to be wilderness-wide, while the social outcomes properly become more limiting deeper into wilderness.

While some have argued that there should be only one wilderness-wide outcome (i.e. no zoning), in practice it is generally not practicable due to Congressionally designated boundary locations, unless the boundary is itself in a fairly remote location. From 2-4 zones are common, with 3 being perhaps the easiest to clearly differentiate.

ROS	Semi-Primitive Non-Motorized (SPNM)		Primitive (P)	
WROS	Transition	Semi-Primitive	Primitive	Pristine
LAC Opportunity Classes	4	3	2	1
Wilderness Resource Zones	Transition	Primitive	Primitive	Wild

Forests should analyze their wilderness situation and determine their preferred nomenclature.

When a nomenclature is selected, and desired conditions, goals, objectives, standards, and guidelines are prepared, the Forest Planning process should display several alternatives as percentage mixes of each zone. Thus, it will be apparent where and how much of the wilderness will be managed under each option.

EXAMPLES OF ALTERNATIVE MIXES

(Using WROS nomenclature)

Alternative	Transition Area %	Semi-Primitive Area %	Primitive Area %	Pristine Area %
A	5	10	10	75
B	10	15	15	60
C	15	0	15	70
D	1	10	14	75
E	2	0	10	88
F	0	5	5	90
G	10	40	0	50
H	15	20	65	0

Note: The table above is not intended to infer that each Forest Plan alternative would have a unique mix of wilderness allocations.

Preferred alternatives which favor the higher percentages of pristine designations must manage commensurately to protect the experience provided by that designation. It is the category that offers the increasingly rarest of wild experiences in the National Wilderness Preservation System.

Appendix E

Capacity Determination Methods

The opportunity to set direction for Northern Region Wildernesses occurs during programmatic revisions of the Forest Plan or through amendments arising from project level decisions. Considerable resources, energy, and time are required to set direction in either case, but the wilderness resource of the Northern Region is worth the investment. The broadscale assessment of capacity lends itself to the analysis performed during Forest Plan revision. It results in an allocation decision, the public can understand the cumulative effects, and oversight can be provided at the Regional level. Direction will also be set for the ensuing 10-15 years, a task which will be increasingly difficult to do the longer it is delayed.

The most precious wilderness settings to protect in the Northern Region are the places which yet offer the visitor a near solitary, often remote experience. These places normally occur in wilderness zones labeled pristine, wild, LAC Opportunity Class 1, etc. The desired condition, goals, objectives and standards written for them should set appropriate limits to not allow degradation of such places to a low common denominator.

Numerical capacity determinations are frequently a subject of controversy. It is better to be proactive and establish some capacity which may be realized in the future, but does not immediately limit use today. The Northern Region generally has a better opportunity to do this than some other Regions. Suggested methods for determining capacity are discussed below.

The ROS Coefficient Method (credit for some of this discussion goes to the San Juan NF, Region 2)

The Recreation Opportunity Spectrum (ROS) planning tool describes areas of the wilderness in terms of the experience that can be expected. The ROS has subsets or zones within wilderness as described earlier. Recreation capacities are developed in terms of People At One Time (PAOT's) or Recreation Visitor Days (RVD's). PAOT's represent the number of people within a given area at a point in time, whereas RVD's sum the total use over a given time period. The maximum number of PAOT's that an area can sustain is based on social, physical, and biological conditions or limiting factors. Those conditions are driven by the desired condition, goals, objectives, standards and guidelines in the Forest Plan.

Recreation use coefficients are derived from a mathematical equation that sets a minimum spacing between people within an area or on a trail or river. Number of acres or miles, multiplied by an appropriate coefficient, calculates the PAOT capacity. Coefficients vary by the ROS zones and by the type of terrain or vegetation present. They are lowest for the most remote, pristine areas, and gradually increase for the day-use portal zones. They may also be different for high alpine areas, lightly forested areas, and the deep forest. The principle is that terrain and vegetation tend to screen visitors from others, thereby slightly raising the coefficients in such settings.

Coefficients are properly stated in the Forest Plan. The National coefficients in the ROS Users Guide may be used or local ones may be developed. Because recreation use does not generally occur in a regulated or consistent pattern, the mathematical results are only a starting point.

Additional factors may be applied, such as lower coefficients for early and late season use, or higher for peak season use. Thus, a weighted coefficient may be used which reflects this.

Once the coefficients are determined, the actual usable acres are determined. Often, this is a small fraction of the total Wilderness, but reflects where people actually are.

The length of season is determined and included as a multiplier. The result is a capacity based on spacing, use pattern, actual use area, and length of season.

Once the theoretical capacity is determined, limiting factors may be considered, such as sensitive wildlife habitats, limited number of campsites, desired campsite occupancy rates, etc., in order to reach a maximum use level.

If it is helpful to compartmentalize a wilderness into geographic areas in order to complete these determinations, that should be done.

The Limits of Acceptable Change (LAC) Method

If a Wilderness has LAC zoning and indicators with standards/guidelines in effect, the capacity can become the amount of use which stays within the most limiting of the standards/guidelines. An example of this method of computation is included in the Northern Region Guidebook on Outfitting-Guiding on page A-24.

The Inventory Method

For lack of a better term, this "inventory method" is based on perhaps a simpler, more practical, ground-based approach. It relies on local knowledge of an area and what factors limit use. It requires an inventory of trails, available campsites, destinations, knowledge of use patterns, other resource limiting factors, parking lot capacities, known areas of visitor conflicts, etc. The current visitor use levels should be known in order to determine if these experienced levels are acceptable, and what amount of change will still produce the desired condition. Assembling this data together with the Forest Plan standards/guidelines can result in a "practical capacity."

Setting capacity (or allocation) for outfitted operations is required by FSM 2323.13g, as stated earlier. It is best accomplished after looking at total use in the wilderness. It is combined with a Wilderness-wide or Forest-wide needs assessment for outfitted operations. The needs assessment will involve a qualitative and quantitative discussion of the type of outfitted activities in existence today as well as looking at what future opportunities may be proposed. Which type of operations are more suited to requiring specialized knowledge, skill, and equipment? Is the service reasonably available to those who need it? Historical levels can serve as guidance. There is subjectivity in establishing the percent of total use by activity which should reasonably be allocated to the outfitted public, but it is properly a Forest Plan decision and should be addressed.

For activities requiring specialized ability and equipment, and high safety concerns, such as whitewater rafting and mountain climbing, a split between the outfitted and non-outfitted publics closer to 50-50 is an appropriate starting point. Other activities may appropriately be more in the range of 5-30% outfitted at the Forest's discretion. See also the Guidebook on Outfitter-Guide Administration for further discussion and examples.