

FREQUENTLY ASKED QUESTIONS ABOUT WILDERNESS CHARACTER MONITORING

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WHAT IS WILDERNESS CHARACTER?

What is wilderness character?

The Wilderness Act does not define “wilderness character” and despite a rich legislative history on many aspects of the Wilderness Act, the Congressional committees that developed and debated the Wilderness Act of 1964 did not discuss the meaning of this phrase. To develop a deeper understanding of the meanings of wilderness character, some authors have explored the historical writings of the framers of the Wilderness Act, especially those of Howard Zahniser, its principal author. This exploration reveals three mutually reinforcing societal ideals that are integral to the historic purpose of wilderness and to understanding wilderness character:

- Natural environments that are relatively free from modern human impacts;
- Personal experiences in natural environments that are relatively free from the encumbrances and signs of modern society;
- Symbolic meanings and relationships that people and society have with wilderness, including humility, self-restraint, and being interconnected with the larger community of life.

Wilderness character may be described as the combination of biophysical, experiential, and symbolic ideals that distinguishes wilderness from other lands. These ideals combine to form a complex and subtle set of relationships between the land, its management, and the meanings people associate with wilderness.

Is wilderness character defined in this monitoring program?

No. For the purpose of developing monitoring protocols, wilderness character is described as above. The published conceptual foundation for this monitoring (“Monitoring Selected Conditions Related to Wilderness Character: A National Framework”; hereinafter called the “*Framework*”) uses the Section 2(c) Definition of Wilderness from the 1964 Wilderness Act to identify four qualities of wilderness that are related to wilderness character. The use of these four qualities does not capture the full range of the ideals, meanings, values, and relationships associated with wilderness character.

What are these four qualities of wilderness that are related to wilderness character?

Four qualities were chosen to represent the most general level of the different concepts and ideals, and sometimes subtle distinctions within Section 2(c) Definition of Wilderness in the 1964 Wilderness Act:

- “Untrammeled”
- “Natural”
- “Undeveloped”
- “Outstanding opportunities for solitude or a primitive and unconfined type of recreation”

These four qualities mutually reinforce one another and together comprise a coarse approximation of wilderness character for the purposes of this national monitoring protocol. In this monitoring protocol, all of these qualities are equally important, and none is held in higher regard or to a higher level of stewardship than the others.

How does the Framework define these four qualities of wilderness?

The *Framework* defines these four qualities in terms of the language from Section 2(c) of the 1964 Wilderness Act:

- “*Untrammeled*” – Wilderness is essentially unhindered and free from modern human control or manipulation. This quality monitors human activities that directly control or manipulate the components or processes of ecological systems inside wilderness.
- “*Natural*” – Wilderness ecological systems are substantially free from the effects of modern civilization. This quality monitors effects of modern people on ecological systems inside wilderness since the time the area was designated.
- “*Undeveloped*” – Wilderness is essentially without permanent improvements or modern human occupation. This quality monitors the presence of structures, construction, habitations, and other evidence of modern human presence or occupation.
- “*Outstanding opportunities for solitude or a primitive and unconfined type of recreation*” – Wilderness provides opportunities for people to experience solitude or primitive and unconfined recreation, including the values of inspiration and physical and mental challenge. This quality monitors conditions that affect the opportunity for people to experience solitude or primitive, unconfined recreation, rather than monitoring visitor experiences per se.

How does the Framework use these four qualities of wilderness?

The *Framework* uses the four qualities to identify basic monitoring questions, and from these questions it identifies core national indicators that allow practical monitoring of selected conditions and stewardship actions related to wilderness character. This monitoring program tracks how these indicators are changing over time, allowing managers to make informed decisions about stewardship priorities to preserve wilderness character. It is recognized that wilderness character is a complex concept with both tangible and intangible aspects; some of these aspects cannot be monitored directly and a few simple measures will never provide full and complete understanding of wilderness character.

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WHY MONITOR WILDERNESS CHARACTER?

Why monitor wilderness character?

There are legal and policy mandates to preserve wilderness character and this monitoring program will help the agency fulfill these mandates. This monitoring will directly help the

agency improve wilderness stewardship by providing information to measure progress towards fulfilling these mandates to preserve wilderness character.

What is this legal and policy mandate for monitoring wilderness character?

Congressional legislation and agency policy mandate an affirmative responsibility for preserving wilderness character.

The Wilderness Act Statement of Policy, Section 2(a), states that wilderness areas “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*” (emphasis added). Legal scholars and court decisions assert that Section 4(b), Use of Wilderness Areas, gives the primary management direction for wilderness that “... each agency administering any area designated as wilderness shall be responsible for preserving the wilderness character of the area.” The Congressional Record reinforces this assertion, stating, “The overriding principle guiding management of all wilderness areas, regardless of which agency administers them, is the Wilderness Act (section 4(b)) mandate to preserve their wilderness character.” Section 4(b) further states that even when the agency administers the area for other purposes, the agency must also “preserve its wilderness character.”

The Government Performance and Results Act of 1993 requires federal agencies to demonstrate accountability “by providing ... information about program results and service quality.” This monitoring will yield information useful in documenting the outcomes of agency decisions and actions to “preserve wilderness character.”

This monitoring also helps managers meet the requirements of Forest Service policy pursuant to the Wilderness Act. Forest Service Manual Chapter 2320.2, No. 4, directs the agency to “protect and perpetuate wilderness character.”

Will this monitoring help us meet this legal mandate?

Yes. This monitoring allows the agency to track trends in conditions and stewardship actions that directly relate to the legislated definition of wilderness and the agency’s affirmative responsibility for preserving wilderness character.

Is this monitoring new Forest Service policy?

No. This monitoring protocol is merely a tool to help the Forest Service implement its existing wilderness policy.

Will this monitoring help improve wilderness stewardship?

Yes. For the first time the agency will have information to measure progress and be accountable for fulfilling the mandate of the Wilderness Act to preserve wilderness character. This information will become a legacy spanning the careers of individual wilderness managers. This will allow managers for the first time to assess trends in wilderness character over relatively long periods of time. Also, the *Framework* provides the conceptual foundation for managers to make informed decisions about stewardship priorities and analyze proposed actions in light of these four qualities related to wilderness character.

Does wilderness character monitoring compete with the Forest Service’s 10-Year Wilderness Stewardship Challenge?

No, the two efforts complement one another. Whereas the Challenge assesses performance and accountability across ten selected program elements, wilderness

character monitoring evaluates the outcomes of those actions. In other words, the 10-Year Wilderness Stewardship Challenge describes what the agency stewardship program is doing (the inputs and outputs), while wilderness character monitoring assesses if this program is achieving its goals. For example, under Element 2 of the Challenge, the agency measures program accomplishment on managing non-native invasive plants, such as whether management plans are in place and are implemented, while wilderness character monitoring evaluates whether the area occupied by non-native, invasive plants is increasing or decreasing. The two programs also complement one another in their time frames. The 10-Year Wilderness Stewardship Challenge will be complete by the year 2014, to coincide with the 50th anniversary of the Wilderness Act, while wilderness character monitoring will begin to yield national results in the year 2018.

Why monitor wilderness character when it will only show degradation over time?

There is no bias in this monitoring that would increase the likelihood of showing degradation or improvement in wilderness character. Improvement in wilderness character would be just as readily apparent as degradation. (During pilot testing one manager expressed that if this monitoring were in place 20 years ago it would have shown how wilderness character had improved over this time.)

In newly designated or relatively pristine wildernesses, initial degradation in wilderness character would be likely if system trails are established, recreation facilities installed, or other actions taken to promote enjoyment and limit resource damage in the wilderness. However, it is critical for line officers and managers to understand the effects of their decisions and actions, and this monitoring will be the primary means for showing these effects.

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HOW WILL THIS MONITORING BENEFIT A SPECIFIC WILDERNESS?

Will this monitoring benefit an individual wilderness?

Yes. This monitoring will help line officers and staff:

- Prioritize stewardship actions by identifying actions that will do the most to preserve or improve wilderness character;
- Assess change in conditions related to wilderness character locally;
- Organize information to disclose the effects of proposed actions on wilderness character in NEPA analysis;
- Access national scale information about an individual wilderness for attributes such as air quality, vegetation, certain structures, and demographic data in one database;
- Track performance accountability by providing measures that relate directly to the statutory requirement to preserve wilderness character;
- Establish a permanent database that allows information to be passed on to future managers;
- Express how different funding levels at multiple administrative levels affect the statutory requirement to preserve wilderness character at the wilderness level.

Will this protocol help staff understand the consequences of proposed stewardship actions? Can this protocol be used in NEPA analysis?

Yes. The protocol can help frame site-specific NEPA analysis including cumulative effects by organizing the effects analysis around the four qualities linked to wilderness character

and whether wilderness character is stable, improving, or degrading over time. Evaluating actions against the specific measures developed for each of the four qualities can help managers understand how proposed actions either improve or detract from wilderness character.

Will this monitoring help me in court challenges?

Yes. Increasingly, managers are finding that wilderness decisions are legally vulnerable due to lack of disclosure about how a proposed action affects the area's wilderness character since "preservation of wilderness character" is the Wilderness Act's central mandate. Managers can use the *Framework* to organize information in environmental documents around the four qualities linked to wilderness character. By explicitly showing how proposed actions affect wilderness character and making a clear link between the facts found and the choices made, managers are less vulnerable to challenges about upholding the Wilderness Act. This monitoring will not help in court challenges where the issue is about application of the NEPA process or the adequacy of the analysis in supporting the choices made.

Will one wilderness be compared against others? What if a wilderness is lower in some categories than other wildernesses?

No. Information from this monitoring cannot be used to compare different wildernesses. Instead, each wilderness will only be compared against itself over time. Comparisons among wildernesses are inappropriate because there are aspects of wilderness character that are unique to each wilderness, determined by the area's legislative, administrative, biophysical, and social setting. For example, a wilderness with legislative provisions allowing the State Fish and Game Department to use motorized equipment or mechanical transport to manage wildlife can be expected to have more actions tracked under effects to the untrammeled quality compared to a wilderness that has no such provision. The relevant question is to understand trends over time in a particular wilderness, *given its context*, so that improvements in stewardship can be made in that wilderness.

Will this monitoring accommodate the differences among wildernesses due to specific enabling legislation (e.g. special provisions, ANILCA)?

Yes. Each wilderness is unique in its legislative direction that may allow certain activities that are generally prohibited in wilderness. To accommodate these legislative differences, change over time in wilderness character is only evaluated within each wilderness. For example, a wilderness that contains legislative provisions allowing the State Fish and Game Department to use motorized travel or equipment to manage wildlife can be expected to have more motorized use actions compared to a wilderness that has no such provision. This monitoring allows this particular wilderness to evaluate whether this motorized use is increasing, stable, or decreasing over time.

Can this monitoring protocol be used to revise or amend the Forest Plan?

Yes. The *Framework* can provide a conceptual basis for describing the desired future condition, guidelines, and monitoring requirements for wilderness within a Forest Plan. Specifically, in formulating the desired future condition, the central question is "what does wilderness character mean for this wilderness?" By considering the wilderness qualities of "untrammeled, natural, undeveloped, and outstanding opportunities for solitude or primitive and unconfined type of recreation," staff can develop a description of desired future conditions framed by language in the Wilderness Act. Similarly, the measures developed for indicators under this monitoring program can be used to meet Forest Plan monitoring requirements along with other locally developed measures. These measures can also be used to guide establishment of guidelines so that information from monitoring can be interpreted to better inform stewardship actions.

Can this monitoring be used to develop forest plan monitoring requirements?

Yes. The national core indicators can be included in Forest Plan monitoring requirements for wilderness. Additional monitoring requirements are likely desirable at the local level and the *Framework* may help guide the identification of other meaningful indicators for a particular area.

Will this protocol require specific Forest Plan guidelines for managing wilderness?

No. This monitoring program does not establish guidelines (or thresholds) for the indicators or measures. Establishing guidelines must be done locally as part of Forest planning considering the legislative, social, and ecological context for a particular wilderness. However, establishing local guidelines for the core measures is strongly encouraged as this will make monitoring information more useful in informing stewardship actions. Without the establishment of guidelines, the information from this monitoring will be meaningful after multiple years of data input and analysis because trends over time will become apparent. If local guidelines are established, information from this monitoring could be immediately useful to the manager who would be able to assess whether the observed condition was within wilderness character standards, or not, and could base preventive or corrective actions on the monitoring information.

Is this monitoring related to other Forest Service inventory and monitoring such as FIA data collection, wildlife monitoring, and watershed assessments?

Yes. This monitoring is part of an overall Forest Service effort to improve monitoring on all National Forest System lands. This protocol relies on information from as many other corporate resource databases as possible. Implementation of this protocol will make key information from these other resource databases automatically available to wilderness managers. In some cases, data from these other programs are used directly to monitor the wilderness qualities used in the Framework, and in most cases wilderness managers should be better able to relate wilderness character to the information provided by these other programs.

Will this monitoring be linked to other wilderness programs such as the 10-year Wilderness Stewardship Challenge?

Yes. Although the 10-year Wilderness Stewardship Challenge does not directly address wilderness character, there is overlap between the 10 program performance criteria and monitoring for wilderness character (e.g. air quality monitoring, recreation site inventory, noxious weed assessment). In the short term, implementation of this monitoring will provide useful information for the 10-year Wilderness Stewardship Challenge. In the long term, this monitoring will allow the Forest Service to explicitly address preservation of wilderness character in accountability systems. The two programs are intended to assess very different aspects of wilderness stewardship: the 10-year Wilderness Stewardship Challenge assess management planning and actions, while wilderness character monitoring assess the outcomes of this management.

Will this monitoring help the wilderness program compete for funding?

The *Framework* allows wilderness managers to clearly articulate program needs and demonstrate changes in measurable outcomes based on variations in funding levels. This monitoring offers the ability to compile information at regional and national levels that provides a powerful communication tool to talk about wilderness stewardship needs across broader geographic areas. For example, having consistent program criteria within the budget formulation system created the ability to show that only 8% of Forest Service wildernesses met a minimal level of stewardship, thus creating funding opportunities under the 10-Year Wilderness Stewardship Challenge. Similarly, gathering consistent

information about wilderness character across all wildernesses managed by the Forest Service will allow the agency to articulate the program needed to meet the statutory requirements to preserve wilderness character. This monitoring is integrated many different Forest Service program areas, allowing articulation of funding needs across multiple program areas.

Will this monitoring help us determine the status of wilderness character throughout the National Forest System?

Yes. Because this monitoring uses nationally consistent indicators, information can be compiled at the regional or national level to track trends at multiple administrative levels about whether wilderness character is stable, improving, or degrading over time.

Will this monitoring help address CTA (Credibility through Accountability) requirements?

Yes. Although the current budget formulation system currently does not directly address wilderness character, there is overlap between the current system and indicators within this monitoring. In the short term, implementation of this monitoring will provide useful information for the budget and accountability system. In the long term, the concept of wilderness character will likely be more fully integrated within the budget and accountability system and this monitoring will allow the agency to articulate budget needs and demonstrate the status of meeting the statutory requirements to preserve wilderness character as budgets change over time.

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WHAT DOES THIS MONITORING CONSIST OF AND HOW WILL IT BE USED?

What is the monitoring protocol?

It is a national Forest Service effort supported by the Chief to document the trends in wilderness character for all designated National Forest System wilderness. This program will promote consistency, accountability, and legacy data to improve long-term wilderness stewardship. It establishes a foundation for evaluating accomplishment of the Forest Service's legislated mandate to preserve wilderness character.

This monitoring program has two parts: The first is a *Framework* that defines the purposes of this monitoring and describes four statutory qualities of wilderness character: untrammeled, natural, undeveloped, and outstanding opportunities for solitude or a primitive and unconfined type of recreation. This document provides a comprehensive and foundational discussion of wilderness character, based on the Wilderness Act. It was published as a Rocky Mountain Research Station General Technical Report in 2005, and is available online at the RMRS website (http://www.fs.fed.us/rm/pubs/rmrs_gtr151.html).

The second part is a *Technical Guide* that was completed in early 2006 and was pilot tested in January through June of 2006. It specifies in detail the monitoring procedures and the Washington Office of the Forest Service will distribute it. The *Technical Guide* identifies core national indicators and describes methods for monitoring each indicator. The Indicators will be monitored in a consistent and reliable way across all National Forest System wildernesses.

Who developed this monitoring protocol?

The Forest Service Wilderness Monitoring Committee (WMC) developed the monitoring *Framework* over a 3-year period. The WMC is composed primarily of Forest Service

employees from around the country. There was representation from the ranger district, forest, regional, and Washington Office levels. The WMC also had representatives from the other wilderness managing agencies. The *Framework* had several rounds of internal and external review. Researchers, Forest Service staff, and the public have had an opportunity to comment on the document and have helped shape it. Eleven agency resource specialists from the field and from Forest Service research developed the *Technical Guide* during 2005.

Will wilderness character be reduced to a single number?

No. The very complex idea of wilderness character cannot be reduced to a single number or numerical index. Such a numerical representation would facilitate inappropriate comparisons among wildernesses. Instead, a qualitative description of how wilderness character is changing over time—whether it is stable, improving, or degrading—will be developed for each wilderness.

How will this monitoring help improve wilderness stewardship if only the trend but not the status of wilderness character will be reported? For example, the trend may be stable while the status is terrible.

While only the trend information from each wilderness is reported upwards, local staff can assess the status of wilderness character because they have access to the raw data and can place these data in the context of their Forest Plan direction. Therefore local staff will be able to assess both status and trend of wilderness character.

Core indicators – what are they and how were they selected?

Core indicators are the specific types of standardized information used to answer the monitoring questions set out in the *Framework*. Monitoring questions ask about the major elements in each of the four qualities comprising wilderness character. A small number of indicators were then selected that data will be collected from to answer the monitoring questions. Teams of subject experts selected indicators based on the following criteria, in order of importance:

1. Must be useful and credible for answering the specific monitoring question
2. Data must exist in sufficient quantity and quality
3. Indicators are influenced by FS stewardship actions

Are there indicators in this wilderness character monitoring that have nothing to do with recreation? If so, why are they included?

Yes. Although recreation has tended to dominate agency wilderness stewardship, the legal mandate of the Wilderness Act of 1964, agency wilderness policy, and management responsibility go far beyond recreation. This monitoring is based on the legal definition of wilderness and therefore reflects these broader values and benefits of wilderness.

Are there indicators in this wilderness character monitoring that are outside Forest Service control? If so, why?

Yes, in some cases. Indicators such as air quality may be monitored (although the states are responsible for regulatory control of air quality) because they have the potential to impact wilderness character. The mandate is to report on the trends in wilderness character over time, regardless of direct ability to control those trends.

Will this monitoring provide all the information needed to monitor a specific wilderness?

No. The indicators provide only a portion of the information needed at the local level. Additional monitoring of locally important qualities or conditions related to wilderness

character will be needed, as well as other information related to site-specific projects and local wilderness stewardship.

Are these monitoring indicators necessary and sufficient to track change in wilderness character?

The answer depends on how this question is interpreted. The answer is “yes” for tracking change at the national level in the four statutory qualities of wilderness that are related to wilderness character, which is the purpose of this monitoring program. The answer is “no” for tracking change at the national level in all the ideals, meanings, and values of wilderness character. And the answer is “no” for tracking change in the local, place-dependent aspects of wilderness character.

What is the baseline or reference for tracking change over time?

Ideally, baseline is described at the time a wilderness is designated, but for most wildernesses, the first year of this monitoring will be considered the “baseline” for that wilderness. Baseline is used specifically for tracking changes over time. There is no implication that existing baseline conditions are either “good” or “bad.”

How are special provisions or authorizations that exist in specific wilderness legislation considered in defining baseline?

The *Framework* recognizes that these provisions and authorizations allow deviations from what is “ideal.” The baseline for any wilderness will likely reflect the effects on wilderness character of these special provisions and will show whether or not the special provisions are linked to change in wilderness character over time.

Will the status of wilderness character in the wilderness I manage be compared to another wilderness or a national standard?

No, the status of wilderness character in one wilderness will not be, and cannot be, compared to any other wilderness or national standard. Each wilderness is unique in its legal, administrative, planning, social, and ecological setting, therefore it is not appropriate to compare the status of wilderness character in one wilderness to any other wilderness, and no single national standard for the status of wilderness could be developed. However, the trend in wilderness character from an individual wilderness, whether improving, stable, or degrading, could be compared to the trend of another wilderness, as well as compiled for regional and national reporting.

Can I use wilderness information I collected in the past?

The intent is to monitor change in the specific indicators identified in the *Technical Guide*. It is unlikely that many wildernesses will have data for all of these indicators. However, if appropriate historical data are available, these may be used to describe retrospectively the baseline condition. Information from prior to designation is not included as part of this monitoring.

Will existing data be used in this national monitoring?

Yes. This monitoring will use existing data and databases as much as possible. The intent is to minimize the need for additional fieldwork. National data sets will be used when it is possible to validly interpolate or extrapolate from them to the local wilderness.

Will professional judgment be used in this monitoring?

Yes, but only for those indicators that are considered necessary for this monitoring protocol and better data are not currently available. Professional judgment is used only to assess the status of something of interest but not effects or trends. For example, professional judgment is used to assess the percent area occupied by non-indigenous

invasive plants in a wilderness, but not the effects of these plants on the wilderness. There are legitimate concerns about using professional judgment (for example, these judgments can change over time even when there is no real change in status). To partially alleviate these concerns, in every case where professional judgment is used, clear direction is provided in the Technical Guide for additional information to add to the cuff notes to allow future users to understand the basis for this professional judgment.

If more detailed data are available for a wilderness, can these data be used within this national Framework?

No. For this *Framework* to provide a valid assessment of national trends the types of data reported must be consistent across the nation. However, more detailed data may certainly help local managers understand how wilderness character is changing locally, and therefore such data are very important and should continue to be collected.

Will FIA data be used in this monitoring to assess trends in the natural quality?

No. Although FIA data are collected nationwide, there are other limitations that prevent their use in monitoring wilderness character, at least at this time.

- The FIA grid-based data collection program was designed to assess national trends, not the trends within any one particular land unit such as a wilderness. At the present time it is uncertain how many FIA point samples are needed (and under what conditions of ecological heterogeneity) to make valid inferences to a single land unit. This becomes especially problematic in relatively small wildernesses where a very small number of FIA point samples would occur. Despite the high quality of FIA data, it is not feasible at this time to extrapolate the results from FIA point data to an entire wilderness. The FIA program is aware of this limitation and is currently working to develop new estimation techniques that would improve making inferences to small areas.
- The primary purpose of wilderness character monitoring is to improve wilderness stewardship, and it's not clear how broad-scale ecological trends revealed by FIA (or any other monitoring program) could be used to make changes in wilderness stewardship. For example, if FIA data reveal broad-scale changes in the distribution of certain tree or shrub species (for example, maybe because of global climate change), there is no action a wilderness manager could take to alter this trend. In addition, one of the fundamental stewardship goals of wilderness is to not further manipulate the area, so even if monitoring data revealed that ecological changes were occurring within a wilderness it is not certain if stewardship actions would, or should, be taken.

FIA data would potentially be a huge asset in monitoring the natural quality of wilderness character because FIA data are of high quality and they are collected nationally over a cyclical time frame. For these latter reasons the wilderness program is looking forward to new research and analysis methods that would allow valid inferences from FIA data to relatively small areas such as wilderness.

Can I include local indicators that are relevant to just my wilderness in this monitoring?

No. We tried to develop a system to allow local staff to add their wilderness-specific indicators, but this introduces significant bias when data from different wildernesses are compiled to report regional and national trends. Using only national indicators allows consistency in compiling responses from individual wildernesses, which is necessary to assess the effectiveness of Forest Service wilderness policy. We recognize that national indicators do not capture local and place-dependent aspects of wilderness character, and we strongly encourage each wilderness to develop indicators for local use that fit under

the four qualities of wilderness character. This national monitoring program should not stop or prevent managers from collecting data on local aspects of wilderness character.

How does this monitoring handle actions taken to restore natural conditions? Are such management actions considered an impact to wilderness character?

Actions taken to restore natural conditions are considered a negative impact to the untrammeled quality and a positive impact to the natural quality of wilderness character. Data on management actions that are taken to restore natural conditions will be tracked, along with the reason such actions were taken. For example, an action to eradicate a non-indigenous weed would negatively affect the untrammeled quality (because this is a manipulative action) but positively affect the natural quality (because natural conditions are being restored). See the *Framework* for more discussion and examples. Although considering management actions to restore natural conditions in this twofold way is more complicated, it is also a more accurate representation of what is happening to wilderness character.

Will other wilderness agencies use this monitoring protocol?

This monitoring was developed specifically for National Forest System designated wilderness. However, the conceptual description of wilderness character, the four qualities that relate to wilderness character, and the specific monitoring questions under each of these four qualities may provide guidance to the other wilderness managing agencies. The indicators were partly chosen because of data that are available within the Forest Service and these may be less useful to the other wilderness managing agencies.

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HOW WILL THIS MONITORING AFFECT STAFF TIME AND BUDGET?

Will this monitoring impact local programs?

Yes. Staff time and effort will be required to implement the wilderness monitoring protocol. The protocol makes every effort to utilize existing data where possible to minimize cost and the burden on district and forest staff. It does not constrain or restrict other monitoring, like “Limits of Acceptable Change,” that wilderness staff choose to undertake. Additional, more detailed, monitoring related to wilderness character for individual wilderness areas is encouraged.

Who will be responsible for implementing this monitoring?

The regional and forest wilderness specialists will be responsible for leading and coordinating the implementation at their respective levels. The ranger district wilderness program managers, with line officer support, will be responsible for coordinating and implementing the protocol on the ground, involving resource specialists as needed with line officer support.

Who has responsibility for this monitoring if the wilderness is administered by different Districts, Forests, or Regions?

Every wilderness in the Forest Service has a single designated “lead Forest” and this Forest is responsible for gathering and entering all the data for the wilderness. If administrative responsibility for the wilderness occurs on more than one District, Forest, or Region, the lead Forest has the responsibility for contacting all the appropriate people in those other Districts, Forests, or Regions to ensure that all the data are gathered and entered.

What does this Framework entail for a regional wilderness specialist?

The regional specialist role is critical to the success of this monitoring program. The regional specialist is key to ensure that appropriate databases are available and functioning for consistent and timely data collection and reporting. Training of forest wilderness personnel, coordination with the WO, quality control, data analysis and ongoing critique of protocols for improvement of the program will be important functions. The regional specialist will have an important role in using and interpreting the trend data to align the regional wilderness program and goals for improving wilderness character over time.

What does this Framework entail for a line officer?

This monitoring needs line officer understanding and support from the wilderness level (district ranger) to the national level (Chief) to obtain the consistency, accountability, and legacy data needed for the long term preservation of wilderness character. This translates to a consistent willingness to commit funds and staffing at each level to accomplish the various facets of annual and 5-year data collection, reporting, and analysis necessary to accomplish improved wilderness stewardship over time.

How will this monitoring be funded?

An implementation plan has not yet been developed so at this time it is uncertain how this monitoring will be funded. Funding could come at the national level through NFIM similar to the way the NVUM and IMPROVE programs have been funded. Funding will likely be a collaborative effort at the forest level as part of routine inventory and monitoring work. From the outset of this effort, minimizing local costs and workforce impacts has been a top priority. Costs are minimized by using existing corporate and other national databases. In addition, centralized staff will be used to pull national data and make these available for use within the Infra WILD module that is being developed for wilderness character. This use of centralized staff will minimize local staff time and effort. Pilot testing will reveal how much local time is needed, how centralized staff can improve overall efficiency, and how much funding is needed.

Will the outcome from wilderness character monitoring affect future funding for the wilderness I manage?

No, because there is no specific tie between wilderness character monitoring and how funding is allocated to a wilderness. In general, funding allocation is driven by the Forest Plan and that funding is often tied to accountability. Wilderness character monitoring creates, for the first time, defensible data on the wilderness program needs and in the long run this may improve the ability of the wilderness program to compete for Forest funding.

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HOW WILL THIS MONITORING BE IMPLEMENTED?

Will the protocol be pilot tested?

Yes. The *Technical Guide* and supporting Infra WILD wilderness character module computer application have been pilot tested in every Forest Service region. A variety of criteria were used to choose specific wildernesses for pilot testing to ensure as broad and realistic a pilot test as possible. These criteria include workload complexity, urban proximate vs. remote, size, age, shared vs. single unit management, and few vs. many special provisions. Pilot testing will be divided into two phases. The first phase of pilot testing was conducted in four wildernesses and the principal members of the Technical Guide Development Team were present to observe and help local staff. Results from this

first phase were then incorporated into the Technical Guide and other support materials, allowing the major glitches to be fixed before entering the second phase of pilot testing. The second phase was conducted in the remaining five Forest Service regions solely with local staff to give a realistic assessment of the functionality of the monitoring protocol and reveal its strengths and weaknesses.

How will this monitoring be implemented?

Wilderness data stewards or other ranger district or forest staff for each wilderness will be responsible for entering data into a new wilderness character module within Infra WILD. The protocol will maximize use of existing databases and data already being collected for many wildernesses. These data will be automatically pulled from existing Infra and other databases, but local staff will need to verify their accuracy. Some data will need to be entered by local staff each year. For example, the number of agency actions that manipulate biophysical conditions (for example, spraying herbicides or insecticides, lighting a prescribed fire, or introducing a non-indigenous species) may markedly change from year to year so will need to be tracked annually. In some cases the wilderness staff will need to consult with resource specialists such as the forest ecologist, botanist, or wildlife biologist. Data will be reported through the Infra database, and summarized and analyzed by centralized staff.

How often will monitoring be done and for how long?

This monitoring will be implemented on a 5-year cycle. Some of the data, however, such as agency actions that manipulate biophysical conditions (for example, spraying herbicides or insecticides, lighting a prescribed fire, or introducing a non-indigenous species) that may change markedly from year to year will be tracked annually. The main goal is to look at trends in wilderness character for each wilderness in perpetuity.

When will this protocol be implemented?

The *Framework* was completed in the first half of FY 2005, and the draft *Technical Guide* was completed in January 2006. Pilot testing was conducted in the first half of 2006, and the protocol will be available, contingent on adequate funding, for national implementation in FY 2008.

How will the Technical Guide be published and distributed?

As with all technical guides, this guide will be published through the Washington Office of Communications. At a minimum, the *Technical Guide* will be made available through electronic distribution. A decision has yet to be made as to whether it will be supplemented with a hard-copy distribution.

Will direction be issued requiring forests to implement this protocol?

Yes, formal direction will be issued from the Washington Office when the decision is made by the Chief to fund and implement this protocol. The Forest Service Wilderness Monitoring Committee is currently evaluating whether or not changes to the Forest Service Manual are needed.

What computer system will be used to support this protocol?

The database and application to support this protocol will be developed as a module in Infra-WILD. Though developed as a part of Infra, this application will go out to all appropriate data sources, such as the Forest Service's Natural Resource Information System (NRIS) and air monitoring data managed by the Environmental Protection Agency, to pull in existing data.

Are the data residing within corporate information systems, such as Infra, adequate to be used in monitoring wilderness character?

Based on observations made during pilot testing, the quantity and quality of data housed in corporate information systems and used in the wilderness character monitoring protocol is clearly not what we would like it to be. Due in part to the historic bias for monitoring where management activities are planned or underway, which typically means "outside wilderness," many wildernesses do not have a strong foundation of extensive, quality-controlled monitoring data. This is reality and not likely to change in the near future. However, this absence of quality data does not lessen our responsibility for using the best data available for evaluating the results of our management actions. To address this concern, the protocol assesses the adequacy of the data used for each measure, and this assessment is then used during the synthesis process when trends are evaluated. Implementing the protocol in every wilderness in the country will have the side benefit of validating and improving the data currently stored in our corporate information systems. Experience has shown that when data are used, the quality of the data improves.

How will the field be involved with implementing this protocol?

When the decision is made to implement the protocol, the field will be required to enter mandatory data that cannot be reported at other levels of the Forest Service. Every effort is being made to utilize data that are already reported either at the field level or at other levels. There will also be additional opportunities for forests to assist with data collection, interpretation and analysis.

Will training be offered to support this protocol?

Yes. The details for training have yet to be developed, but it is anticipated that all training can be accomplished at the home units through online and computer based training modules.

Will the other NWPS agencies be implementing a protocol to monitor wilderness character?

The other three NWPS agencies (the Bureau of Land Management, National Park Service, and Fish & Wildlife Service) have been active partners in the development of this protocol for the Forest Service. It is anticipated that the other wilderness management agencies will follow the Forest Service's lead, though agency specific modifications will likely be needed. The ultimate goal would be to evaluate changes in wilderness character across the entire National Wilderness Preservation System.

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