Tracking Progress: Applying the Forest Service 10 Year Wilderness Stewardship Challenge as a Model of Performance Management

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Abstract—The USDA Forest Service applied a performance management/accountability system to the 407 wildernesses it oversees by defining and tracking critical work. Work elements were consolidated and packaged into the "10 Year Wilderness Stewardship Challenge." The goal of the Challenge is to have 100 percent of wildernesses administered by the Forest Service managed to a defined level of stewardship by 2014, to coincide with the 50th Anniversary of the Wilderness Act. Positive results for wilderness have included greater visibility and improved competitive advantage in a time of tight budgets, increased awareness and involvement both within the agency and with public partners, improved stewardship and interdisciplinary involvement, and the development of new tools to facilitate success. It is important for managers to note several cautions before adopting a similar strategy: the elements selected for the performance management/accountability system should include disciplines outside of recreation but may not represent the entire job of wilderness management; "minimum stewardship" is not the ultimate goal for wilderness stewardship; the system should not be considered a "ticket punched"—planning for continued stewardship is vital; and consistency is key. An outline for applying this approach to other wilderness systems is presented in this paper.

Introduction

The USDA Forest Service is given the responsibility of managing 407 wildernesses, spread across 35 million acres of land—comprising approximately 18 percent of the entire land base managed by the Forest Service. These designated lands contain some of the most ecologically diverse and recreationally valuable lands the Forest Service is responsible for managing. As wilderness managers, we also know that these lands are beloved by the American public for more than recreation—they provide important resources like clean air, clean water, wildlife habitat, a refuge for endangered species and a legacy for future generations (Cordell and others 2003). However, 40 years after passage of the Wilderness Act, the Forest Service had not been able to clearly articulate:

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- What the job of wilderness management entails
- How well we're doing
- If current funding and staffing is adequate for doing the job of wilderness management

The Forest Service believes that these items can and should be addressed through a properly designed performance management/accountability system. Here are a few of the benefits that we see in implementing an accountability system:

- Increases the likelihood of funding: as stated by Tom Peters, "what gets measured, gets done" (Peters 2002).
- Improves accountability: in a time of tighter and tighter funding and oversight it is important to demonstrate what is being accomplished.
- Levels the playing field: wilderness is playing by the same rules as other programs in the agency.
- Communication tool: provides a mechanism to visually present our story—helps to make the case for additional resources.
- Provides a common framework: provides a structure for understanding and communicating the job to be done—from workers in the field, to managers in the office, to administrators at the national level.

In 2002 the Wilderness Advisory Group (WAG), a team of Forest Service wilderness managers, scientists, educators and others sanctioned by the Chief of the Forest Service to provide recommendations on key issues related to wilderness stewardship, was challenged to develop a workable performance management/accountability system. The WAG identified the following tasks, adopted from the 1999 Forest Service Wilderness Agenda, *Thinking Like a Mountain* (USDA 1999) to facilitate the development of this system:

1. Clearly define the critical work to be accomplished in each wilderness to assure appropriate stewardship of the wilderness. "Critical work" was defined as those activities necessary to maintain or enhance wilderness values, as intended by the Wilderness Act, and prevent degradation of the wilderness.

2. Identify critical work that is being done and not being done due to current constraints on field funding and staffing levels.

3. Current staffing—use 2001 staffing levels as a base to determine the current level of wilderness field staffing. Develop some comparable scale of indexing, such as wilderness acres, number of visitors, number of wildernesses on a Forest, etc.

4. Proposed staffing—identify appropriate field staffing levels necessary to accomplish critical work in wilderness. Develop criteria for proposed staffing for a variety of wildernesses.

Over the next 18 months the WAG addressed these tasks, culminating in the "10 Year Wilderness Stewardship Challenge" (10YWSC). This Challenge has since become the standard for wilderness management within the Forest Service.

The difficult task of defining the job of wilderness stewardship is not unique to wilderness management agencies in the United States. The approach taken by the Forest Service could possibly be used as a model to apply to other wilderness systems.

Defining Critical Work

The Forest Service's Wilderness Information Management Steering Group (WIMSG), through an earlier budgeting and accountability process, had undertaken the hard job of defining critical work necessary for wilderness management. The initial task list was comprised of over 200 elements that fell into five broad categories.

- Ecological integrity
- Wilderness values
- Public use
- Special provisions and administration
- Program management and effectiveness

The WIMSG had also consolidated this list into a smaller set of elements, representative of the critical work necessary to manage wilderness and applicable to the majority of wildernesses in the Forest Service system. The WAG helped to further refine these 10 elements and established "baseline workforce" numbers based on complexity ratings for each wilderness and input from field level managers. These elements were then packaged into what is now known as the "10 Year Wilderness Stewardship Challenge."

10 Year Wilderness Stewardship Challenge

The 10 Year Wilderness Stewardship Challenge was presented to the Chief and National Leadership Team of the Forest Service in late 2003, for initiation in 2004, the 40th Anniversary of the Wilderness Act. The goal of the Challenge is to have 100 percent of wildernesses administered by the Forest Service managed to a defined level of stewardship by 2014, to coincide with the 50th Anniversary of the Wilderness Act.

Some of the key components of the 10 Year Wilderness Stewardship Challenge are:

- The Challenge consists of 10 elements—60 percent accomplishment is required to meet the "minimum stewardship" standard.
- Local units choose what 60 percent they want to accomplish.
- Each element provides different point levels for incremental accomplishments.

- An integrated approach with other resource management programs is required for success (moves wilderness beyond recreation management).

The following were identified as the 10 essential elements of Forest Service wilderness stewardship:

1. Direction exists in the Forest Plan or supplemental direction, which addresses the natural role of fire in wilderness and considers the full range of management responses.
2. This wilderness was successfully treated for non-native, invasive plants.
3. Monitoring of wilderness air quality values is conducted and a baseline is established for this wilderness.
4. Priority actions identified in a wilderness education plan are implemented.
5. This wilderness has adequate direction, monitoring, and management actions to protect opportunities for solitude or primitive and unconfined recreation.
6. This wilderness has a completed recreation site inventory.
7. Existing outfitter and guide operating plans for this wilderness direct outfitters to model appropriate wilderness practices and incorporate awareness for wilderness values in their interaction with clients and others. Needs assessments are completed for new operations or for major changes to existing outfitter programs.
8. This wilderness has adequate direction in the Forest Plan to prevent degradation of the wilderness resource.
9. The priority information needs for this wilderness have been addressed through field data collection, storage and analysis.
10. The wilderness has a baseline workforce in place.

While the goal of the Challenge is for all 407 wildernesses managed by the USDA Forest Service to meet a minimum score of 60 percent, progress can be tracked by individual elements. Figure 1 displays the relationship of these elements allowing management to target those elements, such as non-native, invasive plants, needing the most attention.

Incremental Scoring

Initially these elements were graded by a simple yes/no scoring system where a wilderness manager either claimed success for fully implementing an element or failure for not fully implementing. However, managers wanted (and deserved) to be able to claim credit for partial accomplishment. These incremental steps would provide the foundation for eventually fully meeting that element. In 2005 reporting, a system was initiated that allows for "partial accomplishment" for each of the 10 elements within the 10YWSC (USDA 2005).

For example, using Element 2 (This wilderness was successfully treated for non-native, invasive plants.) as shown in table 1, a manager can claim anywhere from two to 10 points depending on the work that has been accomplished: a completed inventory, a management plan, management actions, evaluation of success. Each of the 10 elements of the Wilderness Stewardship Challenge has a similar incremental measure.
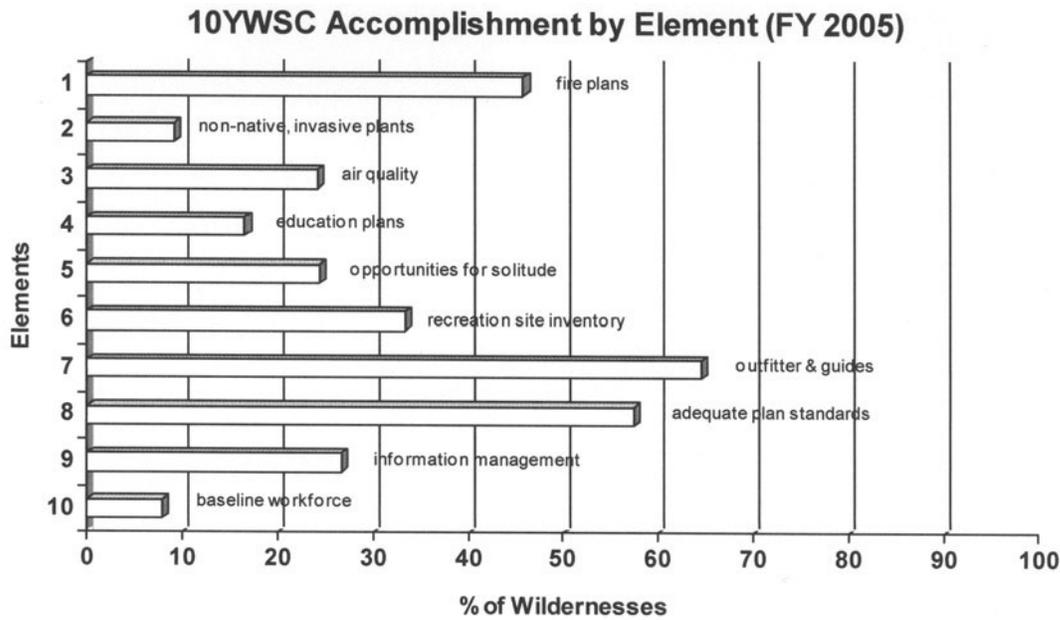
10YWSC Accomplishment by Element (FY 2005)

Figure 1—2005 National Status—Percentage of wilderness units reporting minimum 60 percent accomplishment for each 10 Year Wilderness Stewardship Challenge element.

Table 1—Incremental scoring for Element 2, non-native, invasive plants.

Score	Accomplishment level
2	An inventory[a] is completed in wilderness and/or prevention program and targeted management actions have been implemented without a non-native, invasive species management plan.
3	A non-native, invasive species management plan has been prepared or direction is provided in the forest plan and includes direction for addressing invasives in wilderness.
5	Management actions have been implemented (e.g., treatments, regulations, education, etc.) in highest priority areas.
6	Management actions taken in highest priority areas have been evaluated and determined to be successful.
10	Management actions for all non-native, invasive plants inventoried in wilderness have been implemented and these actions have been evaluated for effectiveness and treatments adjusted as necessary.

[a] Note: if the inventory is current (in other words, has been conducted within the monitoring cycle) and no non-native, invasive plants are found, count 10.

Key Definitions:
- *Non-native, invasive plant*: a plant, including its seeds, spores or other biological material that is non-native to the ecosystem under consideration and whose introduction causes, or is likely to cause, economic or environmental harm.
- *Successfully treated*: the treatment was part of a Non-Native, Invasive Species (NNIS) management plan and the treatment met the objectives in the plan, whether it's eradication or control. This includes direct management actions in the field.
- *Non-native, invasive species management plan*: an integrated plan developed to address the control or eradication of non-native, invasive plants and/or animals on a national forest or other land unit.

Counting Instructions:
   Note: this element specifically addresses non-native, invasive plants. However, if non-native, invasive plants are not of issue in this wilderness, and other non-native, invasive species are (insect, disease, etc.), you may substitute efforts to address these concerns under this element.

Element 10: Baseline Workforce—Current and Proposed Staffing

   In 2002, the WAG took on the task of developing baseline workforce staffing targets for each wilderness, helping to define Element 10. The WAG accomplished this assignment by developing "wilderness complexity ratings" for each wilderness. These ratings evaluated 12 measures for

which data were nationally available such as wilderness size, organizational complexity and amount of use. Each of these measures was weighted based on a subjective determination of how each contributed to workload complexity and an initial wilderness complexity rating was calculated for each wilderness.

Individual wildernesses were categorized into four arbitrarily defined complexity classes (A-D), from Low to Very High, for the purpose of conducting telephone interviews with a sample of wildernesses regarding the baseline work force needed to steward wildernesses with varying complexity. A stratified random phone survey was conducted with wilderness managers during April 2003. Survey participants were asked a variety of questions, including what level of staffing they would need to "manage their wilderness to standard" by 2006. A total of 56 wilderness managers were surveyed.

The results from the phone survey were subjected to data cleaning and verification, and then were analyzed and arrayed by complexity class. Targets were based on the **median** workforce value within each complexity class to minimize the effects of data outside of the normal distribution. A single target was assigned to all wildernesses of the same complexity class.

The workforce targets for each wilderness were further refined in 2005 to more clearly reflect the range of complexity ratings within each class and to avoid the "stair step" effect of only calculating a single target for each complexity class. Because complexity varied among wildernesses within each of the four complexity classes, work force targets were calibrated to reflect this variation (for example, the least complex wilderness in a complexity class had a smaller work force target than all other wildernesses in that class, but a larger target than all wildernesses in a lower class).

Identifying Work Being Done Versus That Not Being Done

Because none of the 10 elements are new to the work being performed in wilderness, a data management system, Infra-WILD, was already in place to capture actions and accomplishments in individual wildernesses, but not all wildernesses had reported their accomplishments. In 2003, existing data were analyzed and reported to Forest Service leadership. For the first time, a picture was painted that clearly showed what was and what was not being accomplished in Forest Service wilderness stewardship. At that time it was estimated that 8 percent of the 406 wildernesses under Forest Service management were meeting a minimum level of stewardship. It was argued that an increase of 10 percent a year would bring that level to 100 percent in 2014, the 50th Anniversary of the Wilderness Act. The national baseline for the Challenge established in 2005 is 12 percent of wilderness managed to a minimum stewardship level. The data from the 2005 baseline shows we have a long way to go to achieve our goal with the 10 Year Wilderness Stewardship Challenge (fig. 2). However, that is not to say that we have not experienced several significant successes with the Challenge.
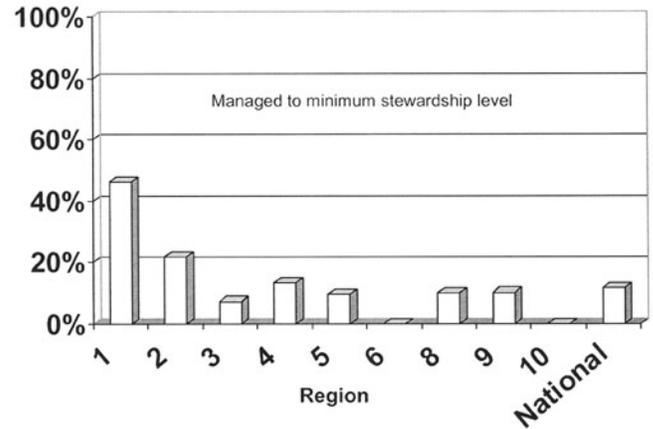

Figure 2—2005 National Status—Percentage of wilderness units reporting minimum 60 percent accomplishment for the 10 Year Wilderness Stewardship Challenge by USDA Forest Service regions.

Success

The 10 Year Wilderness Stewardship Challenge has been in place for 2 years. Some of the positive results include:

Greater Visibility

The 10 Year Wilderness Stewardship Challenge provides a mechanism to visually present the wilderness management story. As a result, at a time where many high profile recreation programs [Off-Highway-Vehicle (OHV) Management, Recreation Facility Master Planning] are competing for funding out of the same dwindling national appropriations, wilderness has become more than something we "leave alone because it will take care of itself." In a period of tighter funding and oversight, the 10YWSC is helping make a case for additional resources by displaying what is and what is not being accomplished.

Increased Awareness and Involvement

This is occurring at very high levels in the Forest Service, as well as across other programs with wilderness stewardship responsibilities and our external partners. A very successful partnership with the National Forest Foundation (NFF) has been developed based on the 10YWSC. The NFF has dedicated funding to match Forest Service partners who are helping to achieve the Challenge. An example of these partnerships includes Wallowa Resources and their Hells Canyon and Eagle Cap Wilderness Weed Survey and Control project. This project focused on reducing the threat of weeds to the Hells Canyon and Eagle Cap Wilderness areas, in partnership with the Tri-County Cooperative Weed Management Area, through inventory, treatment with integrated pest management, monitoring and restoration.

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Another successful project funded in partnership with the NFF was the Northwest Connections White Bark Pine Forest Restoration project in the Mission Mountains Wilderness, Flathead National Forest (MT). This project is assessing the declining white bark pine forests across the Mission Mountains Wilderness Area and helping the Forest Service in changing the current fire management plan to accommodate prescribed burns.

These are just two of the many projects supported through the National Forest Foundation that are directly related to the 10YWSC.

Improved Stewardship

A common definition of what good stewardship means is in place and the minimum bar has been set. All units are moving towards a common goal. Resource programs such as fire management, fish and wildlife and others are getting involved—from workers in the field to managers in the office to administrators at the national level. The 10YWSC serves to highlight the need for more effective wilderness stewardship through interdisciplinary involvement and partnerships.

Development of Tools

To help facilitate success of the 10YWSC the Arthur Carhart National Wilderness Training Center developed management toolboxes covering implementation guidelines and examples for many of the 10 elements and the WAG helped to facilitate a Guidebook for managers. These tools have been posted on Wilderness.net, a multi-agency wilderness management website accessed by over 150,000 individuals each month. The Guidebook can be downloaded at: http://www.wilderness.net/NWPS/documents/guidebook.doc

Cautions

There are several cautions to consider if adopting a management tool like the 10YWSC. First, it is important to note that the 10 elements only represent *part* of the job of managing wilderness—be careful not to represent this subset as the *entire* task of wilderness stewardship. The elements should be representative of all wilderness values, not just recreation. Second, is the concept of a "minimum stewardship level"—in most situations 60 percent is barely a passing grade. This should not be the ultimate goal for wilderness stewardship. Third, the system is not a checklist—one in which you get credit and then move on. The elements need continued attention and "maintained to standard" must be a sustained objective, not a ticket punched for that year's accomplishments. Annual accomplishment reporting must be combined with some sense of direction for the next year.

Furthermore, clear definitions are necessary to ensure consistent counting. Without consistent counting, you'll be unable to meaningfully interpret the results. And as much as possible, the elements and their descriptions should be relatively stable. If and when changes are made, you become open to accusations of a changing goal.

Conclusion

In conclusion, the USDA Forest Service has had some success in defining and marketing their accountability system for designated wilderness, the 10 Year Wilderness Stewardship Challenge. The Challenge has increased the awareness of wilderness stewardship throughout the agency and has helped to more clearly define what the actual job of wilderness stewardship entails. Other wilderness management agencies could replicate the Challenge by following a similar approach.

Outline of Approach

- Brainstorm a list of critical work elements—this list should include all wilderness values (not just recreation).
- Boil list down to key elements applicable to all wildernesses. This set should be relatively small—we limited ourselves to 10 elements.
- Attempt to fit into systems (for example, accountability and data management) already in place (if applicable).
- Consider marketing potential—(for example, our tie to the 40th and 50th anniversaries of the Wilderness Act of 1964). Package and communicate in every possible venue.
- Provide tools to help field managers meet the Challenge (toolboxes, templates, guidebook, etc.).

References

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