

Implications of Climate Change for Wilderness Policy

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Recommending new wilderness

The problem is that current policies for recommending new wilderness don't take into account the ecological and administrative needs and impacts imposed by climate change. To address this problem, the criteria included in agency policy for recommending new wilderness can explicitly include the following:

- 1. Ecological representation.* Areas could be recommended to ensure that a range of latitude, elevation, habitat types, and other ecological attributes are represented in the protected areas portfolio across the region.
- 2. Connectivity.* Areas could be recommended to improve and enhance the connectivity of habitats between protected areas to facilitate dispersal across the region.
- 3. Integration.* Areas could be recommended that are adjacent or close to protected areas administered by other federal and state agencies, and private organizations. Such integration would help the connectivity of habitats across the region.
- 4. Ecosystem services.* Areas could be recommended to ensure the adequate flow and sustainability of ecosystem services.

Wilderness stewardship

The problem, as above, is that current wilderness stewardship policies don't take into account the ecological and administrative needs and impacts imposed by climate change. To address this problem, the agencies could consider reviewing policies to:

- 1. Stop known threats.* Currently, agency policies do address a variety of threats to wilderness attributes and values, but climate change will exacerbate most current ecological threats to wilderness as well as creating new threats. Given these changes, it behooves the agencies to strengthen and deepen their policies to identify threats, assess their likely impacts in the context of climate change, and prioritize actions to eliminate them or mitigate their impacts.
- 2. Facilitate adaptation.* Currently, agency policies are silent on what, when, where, and how to accept, guide, or resist changes caused by climate change (based on the framework that Greg Aplet presented the arrays all wilderness stewardship along axes of freedom from manipulation and naturalness). The critical issue is for the agencies to get out in front of climate change, much like pre-season work to develop fire management plans, to set up the strategy for wilderness stewardship. Such policy guidance will need to take into account the large scale impacts caused by climate change and the resulting large-scale policies guidelines that will be needed. For example, policies could state what types of wildernesses would be most appropriate to resist climate changes by any and all means necessary to preserve elements of naturalness, and what types of areas would be most appropriate for accepting the changes that occur to preserve the untrammelled quality of wilderness.
- 3. Improve integration across agencies.* Currently, there is little if any attempt to integrate agency policies across the four federal wilderness managing agencies. Given the large scale climate changes that are anticipated, similar or complementary policies across all the wilderness agencies may allow one

type of adaptation in a wilderness managed by an agency while allowing a different type of adaptation in a wilderness managed by a different agency. Complementary policies would maximize or at least optimize preserving wilderness character across a region that is managed by more than one agency. This is not suggesting that the four agencies have the same policies, only that they be consistent with one other to reflect the large scale climate changes that will be occurring across and within the National Wilderness Preservation System.

4. Increase inventorying and monitoring. Currently, monitoring and assessing the status and trends of ecological resources inside wilderness are often ignored by the agencies. If wilderness truly will serve as a benchmark and as a place to learn how relatively unaltered ecosystems respond to climate change, agency policies will need to become much stronger about the need for inventorying and monitoring inside wilderness.

5. Develop wilderness performance accountability standards and a professional career track. Currently, there are no policy guidelines or standards for wilderness stewardship performance accountability. Partly, this reflects the lack of a wilderness professional career track. Regardless of why, policy guidelines could nonetheless be developed to create a professional level of knowledge, skill, and accountability for wilderness stewardship. This is likely to become a critical need with climate change because the institutional capacity to manage the unique attributes and values of wilderness will be increasingly challenged. Wilderness performance accountability standards and a career track will be hugely important in assuring that agency staff has the knowledge and experience to understand the attributes and values that are at risk, and the skills to sustain them.

6. Improve guidelines for communicating about the importance of wilderness. Currently, some policies provide limited guidance about developing a communication and education plan, but no policies address the need to communicate about the impacts of climate change on wilderness and the important role that wilderness plays in helping the agencies adapt to climate change. As above, consistency across agency policies for communicating the role of wilderness in the regional fabric of protected areas will help the public understand both the impact of climate change and the importance of wilderness.