We have identified and delineated new Wilderness Study Areas (WSAs) at six refuges in the region, and recommended revising a previously proposed Wilderness area. Currently, a total of 12 refuges in the region contain Wilderness values and character sufficient to be considered further for Wilderness designation, and six refuges have designated Wilderness. The other refuges we reviewed were not suitable for further Wilderness consideration.

Because Wilderness reviews are part of our planning and public involvement process, we welcomed interest in and addressed concerns about Wilderness, including other agencies questioning our jurisdiction and authority to establish marine Wilderness areas around refuge islands and atolls in Hawai'i and the Pacific Islands. In general, however, the public and other agencies remain engaged in our planning and Wilderness review processes.

We recently conducted one of our most complex Wilderness reviews during the CCP process at Sheldon National Wildlife Refuge in northern Nevada. It was complicated because the Service proposed 341,500 acres for Wilderness designation at the Refuge in 1974. That proposal has not been acted upon by Congress. The new review resulted in adding and deleting areas from the 1974 proposal for a Wilderness new proposal of 341,495 acres. Both proposals contain some lands in common, but not all, therefore, the total area now in WSA status is 424,360 acres.

Refuge System policy commits us to managing all of our WSAs for their Wilderness character and values, unless the Service's directorate changes or withdraws a WSA's status. Our next step is to determine which WSAs are priorities for Wilderness recommendations.

## Quantifying and Mapping the Climatic Diversity of the National Wilderness Preservation System: A Framework for Strategic Planning in a Changing World

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Four federal agencies are tasked with stewardship of a National Wilderness Preservation System (NWPS) that currently includes over 109 million acres across 757 units. These areas play a critical role as ecological benchmarks in the context of global change (e.g., land-use and climate changes). But what exactly comprises those areas? What is it we are stewarding? To date, no comprehensive environmental description exists of what comprises the NWPS or of what comprises the distinct jurisdictions of each of the four agencies. Without this understanding, coordination and planning toward any kind of strategic vision for the future of the NWPS will be very difficult. In this era of rapid change, developing such a strategic vision will be increasingly important if the benefits of Wilderness are to endure for future generations.

As a crucial first step to understanding what the NWPS contains, we use a new environmental classification framework to define the current environmental space of the US and the NWPS as independent from their geographic space. Ordination techniques were used to create a reduced set of three axes of variation on the basis of multiple climatic factors. These axes delineated the climate space that was used to assess the climatic diversity of the US that is represented by Wilderness areas within each of the four agencies and across the NWPS as whole. This framework allows Wilderness program managers to see, for the first time, what niches in the climatic environment their agency is uniquely responsible for and where that responsibility might be shared with another agency, thus unveiling potential opportunities for coordinated planning.

Our environmental framework is especially relevant in the climate change context; we are currently incorporating climate change effects and associated shifts in this environmental space to evaluate how well the NWPS will represent environments in the future and expected trajectories of change. Additionally, the inclusion of non-climatic variables (e.g., remoteness, topography) into our classification provides the opportunity to evaluate effects of projected land use changes on the representativeness of the protected area network. While our approach can be used to identify common vulnerabilities among Wilderness areas, this framework can also be used to conduct gap analyses and identify conservation priorities.