

An Overview of America's National Wilderness Preservation System

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The original perception of wilderness in America was one of a barrier or threat to early settlers that must be conquered. However, as time went on many saw value in retaining the lands in an unmodified and undeveloped condition. The establishment of preserves such as Yellowstone National Park in 1872 helped set a precedent for the federal government to allocate lands for non-consumptive purposes (Dawson and Hendee 2009). Later, federal land management agencies, such as the Forest Service (FS) and the National Park Service (NPS), established administrative guidelines for the preservation of wild lands, but pressure for development continued to increase with plans for more timber sales, mines, roads, campgrounds, and tourist hotels to meet rising demand. During this same period, conservationists and some politicians saw the need for permanent legislation to protect wild lands, and in 1956 the first wilderness bill was introduced to Congress. Eight years later in 1964, after much debate and many rewrites of the original bill, the Wilderness Act was passed and signed into law (Scott 2004).

In passing the Wilderness Act, Congress responded to the need for formal and permanent wild land preservation "...to secure for the American people of present and future generations the benefits of an enduring resource of wilderness." The Act also established the National Wilderness Preservation System (NWPS) to ensure that

... an increasing population, accompanied by expanding settlement and growing mechanization, does not occupy and modify all areas within the United States and its possessions, leaving no lands designated for preservation in their natural condition. . . [Wilderness Act, Section 2(a)]

For the past 50 years, citizens and lawmakers have been building this system of preserved federal lands as an investment in our country's future (Scott 2004). When the Wilderness Act became law, 54 areas in 13 states (9.1 million acres in total) were formally designated as wilderness. Today the NWPS has grown to now include 762 areas covering nearly 109 million acres in 44 states and Puerto Rico (Figure 1).

Four federal land management agencies, the Bureau of Land Management (BLM), US Fish and Wildlife Service (FWS), and NPS, in the Department of the Interior and the FS, in Department of Agriculture are responsible for managing the wilderness system

(Table 1). Overall, the NWPS represents a small, but very important, system of protected lands. Designated wilderness lands make up <5% of the lands of the United States, with 55% of these lands in Alaska. However, for most of the land management agencies, wilderness accounts for a substantial part of the overall land area they manage (Table 1).

The 50th anniversary of the Wilderness Act was celebrated in October 2014 with nationwide fanfare that included local celebrations and a national conference. Although there is much about wilderness to celebrate, the federal managers responsible for wilderness stewardship continue to struggle with challenges, including increasing visitor use, conflicts with nearby urban areas, climate change, invasive species, and special provisions contained in new area legislation, to name a few.

To address these issues, the four federal agencies responsible for wilderness management developed a new strategy for stewardship: the 2020 Vision.¹ This new strategy is welcomed, but twice before the agencies have worked together to develop strategies and to report on the status and needs of the NWPS. In both cases, highly qualified wilderness experts were engaged to help identify priorities for successful wilderness stewardship. The brief 1995 Interagency Wilderness Strategic Plan (BLM, NPS, FWS, and FS 1995) received wide distribution but lacked adequate implementation across a number of its goals and objectives. Shortly thereafter, a much more detailed report entitled *Ensuring the Stewardship of the National Wilderness Preservation System* (also known as the Pinchot Institute Report) was widely acknowledged for the expertise represented on the reviewing panel and because it highlighted specific needs and actions (Brown et al. 2001). Regrettably, these previous efforts have had very limited impact and have fallen short because of a lack of full agency commitment and implementation. Will the new 2020 Vision and wilderness stewardship efforts that follow have the same fate as the 1995 Strategic Plan and the Pinchot Institute Report?

In large part, the Wilderness Act has worked remarkably well to identify and provide protection for many of the lands suitable for congressional designation. But often scenic grandeur has been used as an unofficial criterion, resulting in an NWPS that underrepresents some important ecosystems. Today, revised criteria for designation are crucial in our rapidly developing world. These other criteria include key watersheds, essential wildlife habitat and corridors, and unique landscapes that are not currently included in the NWPS.

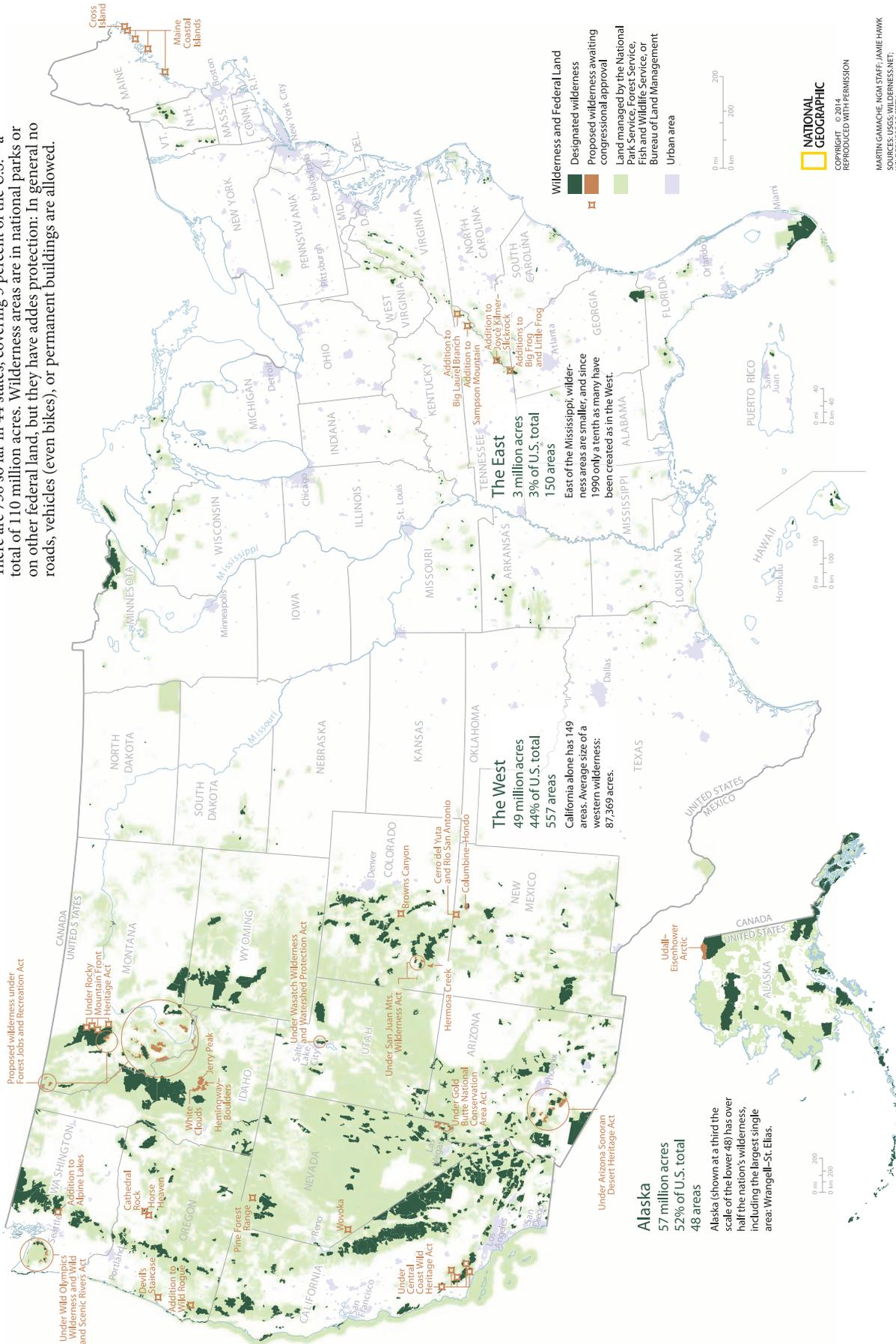
Changes to the existing wild land identification and protection process to ensure inclusion of landscape-level assessments that consider all land ownerships and jurisdictions and address emerging threats such as climate change are also needed. Each of

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America's Wilderness Areas

There are 758 so far in 44 states, covering 5 percent of the U.S.—a total of 110 million acres. Wilderness areas are in national parks or on other federal land, but they have added protection: In general no roads, vehicles (even bikes), or permanent buildings are allowed.



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Figure 1. The National Geographic Society map of the NWPS.

Table 1. Wilderness acreage and proportion of land base by federal agency as of April 2015.

Agency	Acreage	% of agency's land base
BLM	8,736,087	3.5
FWS	19,862,488	23.3
FS	36,385,240	18.7
NPS	43,932,843	55.1

Source: wilderness.net; last accessed Jan. 5, 2015.

the agencies has completed wilderness reviews that identified federal lands worthy of congressional designation, but some land reserves remain without permanent protection and are thus vulnerable to threats to their natural condition. These reserves include areas within familiar national parks such as Glacier, Yellowstone, Grand Teton, Grand Canyon, Big Bend, and Great Smoky Mountains, as well as numerous wilderness study areas managed by the BLM, FS, and FWS that exhibit remarkable wilderness attributes. These natural treasures deserve the protection that only an act of Congress can provide (Aycrigg et al. 2015).

Our society values wilderness. More than 50% of Americans, including those living in both urban and rural areas, think that not enough natural land has been protected within the NWPS (Cordell et al. 2003). Americans value this land first and foremost as a legacy for future generations, as a refuge for plant and animal species, as a source of clean air and water, and for its recreational amenities, among other things. However, it is no longer enough to simply identify and designate public lands

as wilderness. Wilderness areas require stewardship through ongoing efforts to monitor and protect each area. The work includes inventory and management of recreation opportunities and use, informing visitors about wilderness and ways to limit their impacts to the natural environment, administration of special provisions that allow mining, grazing, and certain access and developments, management for the natural role of fire or insect and disease control, and scientific research to monitor trends, identify consequences, and suggest management strategies.

All but one of the articles in this special issue of the *Journal of Forestry* cover the state-of-the-art research being undertaken by wilderness scientists and scholars working to address many of the significant issues facing the stewardship of the NWPS. But these science articles do not tell the whole story. In the first discussion article (Cordell et al. 2015), we provide a critical review of how the federal land management agencies currently practice wilderness stewardship and propose a number of potential solutions. For example, we look at the way the agencies function and evaluate the strengths and weaknesses of basing wilderness management on four different agency perspectives and policies. We propose what we consider is a better approach to function on behalf of the NWPS rather than on behalf of individual agency interests. However, it is not our intention to be only critical and ignore the good work being done by many in the agencies and in private organizations. Rather, we hope to bring attention to the challenges and encourage the entire wil-

derness stewardship community to work together to address pressing current and future challenges.

Endnote

1. For more information, see www.wilderness.net/toolboxes/documents/50th/2020_Vision.PDF.

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