Information Crossfile

Public Values, Climate Disruption, and Western National Parks

"A climate disrupted by human activities poses such sweeping threats to the scenery, natural and cultural resources, and wildlife of the West's national parks that it dwarfs all previous risks to these American treasures," so states the July 2006 report, "Losing Ground: Western National Parks Endangered by Climate Disruption" (Saunders et al. 2006). The authors contend that "a disrupted climate is the single greatest threat to ever face western national parks." Focusing on the effects of climate change in western national parks, this well-documented, peer-reviewed report highlights specific parks with values that will be lost, for instance, the glaciers in Glacier National Park, the tundra in Rocky Mountain National Park, the Joshua trees in Joshua Tree National Park, and the beaches in Golden Gate National Recreation Area (see photos). The report identifies the top 12 western national parks at most risk. In alphabetical order these parks are Bandelier National Monument (New Mexico); Death Valley (California) and Glacier (Montana) national parks; Glen Canyon (Arizona and Utah) and Golden Gate (California) national recreation areas; and Grand Teton (Wyoming), Mesa Verde (Colorado), Mount Rainier (Washington), North Cascades (Washington), Rocky Mountain (Colorado), Yellowstone (Wyoming, Montana, and Idaho), and Yosemite (California) national parks.

The U.S. Geological Survey has judged the beaches and other coastal areas of Golden Gate National Recreation Area (and those at Channel Islands and Olympic national parks, and Point Reyes National Seashore) to be highly vulnerable to sea-level rise resulting from climate change (Saunders 2006). Contributing factors are coastal slope, wave heights, and range of local tides. The vulnerable beaches include heavily visited Baker Beach (left and middle) and Ocean Beach (right). NPS (3)

Though scientists have provided credible warnings about global warming for nearly 30 years, and recent literature confirms a scientific consensus that most of the warming in recent decades can be attributed to human activities (e.g., Houghton et al. [IPCC] 2001, The Presidents of National Science Academies 2005), scientific evidence has not been able to overcome social, economic, or political resistance. Speth (2005) identifies a number of reasons why the current situation in the United States reflects little commitment to climate protection. First, being technical and long term, climate change is difficult to communicate. Second, when results regarding climate disruption are communicated, they only reach a small audience. Journals like *Science* and *Nature* consistently provide newsworthy results regarding climate change. However, as Speth (2005) points out, these results, though often startling in their significance, "rarely if ever, reach beyond a very limited audience." Moreover, the U.S. media, when it does cover a story about climate change, is "afflicted with 'balanceitis,' striving to provide equal coverage to 'the other side of the story' when it deserves little or none at all" (Speth 2005). A comparison with the media internationally shows that "U.S. reports on climate treat the issue as more uncertain, controversial, and theoretical than coverage in other countries" (Speth 2005). Additionally, scientists have been noticeably reluctant to speak out on the subject. Director's award winner for natural resource research, Dan Fagre, a research ecologist for the U.S. Geological Survey at Glacier National Park, is a notable exception (see pages 122–123 in *Natural Resources Year in Review—2005*). Third, economic interests offer stiff resistance to climate protection. According to Speth (2005), the energy industry has skillfully orchestrated advertising campaigns on topics such as opposing the Kyoto Protocol and promoting coal. Finally, the environmental community faces charges of mishandling the climate issue. For instance, the authors of the essay "The Death of Environmentalism" note that environmental leaders are not "articulating a vision of the future commensurate with the magnitude of the crisis" (Shellenberger and Nordhaus 2004). Focusing on technical fixes like hybrid cars and fluorescent light bulbs fails to appeal to the public's values and aspirations.

Now, however, with "Losing Ground," the Rocky Mountain Climate Organization and the Natural Resources Defense Council may appeal to the public's values of natural and cultural resources, wildlife, and enjoyment of national parks. These values are at risk from the loss of glaciers and snowfields, beaches, historical and archaeological sites, and recreational opportunities such as boating, fishing, and winter activities. Additionally, changes in vegetation; wildlife extinction; park closures due to fire; intolerable heat; and overcrowding at cooler, higher elevations will tax such values.

In 2003, with the support of the U.S. Environmental Protection Agency, the National Park Service began an effort to help itself become more "climate friendly." The Climate Friendly Parks pilot program was started in response to the president's February 2002 call for voluntary action on climate change. The Climate Friendly Parks program has held four workshops: in June 2003 for Gateway National Recreation Area (New York), in December 2003 for Glacier National Park (Montana), in May 2004 for Zion National Park (Utah), and in June 2005 for Everglades National Park (Florida). However, Saunders et al. (2005) seems to be prodding the National Park Service to take further steps and realize its potential to help significantly reduce the build-up of greenhouse gases. As Michael Soukup, associate director for Natural Resource Stewardship and Science, stated on 17 July 2006 in *The Billings Gazette*, the National Park Service is "a very small agency with a potentially high impact."

The timing for action seems to be now for at least two reasons. First, according to the presidents of national science academies from the G8 countries, Brazil, China, and India, "action taken now … will lessen the magnitude and rate of climate change." Also, "failure to implement significant reductions in net greenhouse emissions now will make the job much harder in the future" (The Presidents of National Science Academies 2005). Second, studies show that people today will be altruistic about protecting the climate. Milinski et al. (2006) reveals that people reward others' contributions to sustaining the climate (with contributions of their own to a "climate fund") when the subjects were allowed to make their contributions in public, as compared to anonymous investments. In addition, Milinski et al. (2006) found that "expert information about the state of the global climate enhanced human altruistic motivation." These results point to a gap in public policy, upon which climate policy makers, and potentially the National Park Service, may be able to capitalize, that is, "designing strategies to improve the social reputation of people investing in climate protection" (Milinski et al. 2006) and providing the public with sound scientific information and legitimate scientific analysis.

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