Climate Adaptation Strategies are Limited by Outdated Legal Interpretations

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A cogent criticism of current US federal public lands law, particularly with regard to the most preservation-oriented protected areas, is its emphasis on maintaining, restoring, or reproducing historical conditions (Camacho 2010, 2011; Craig 2010; Doremus 2010). As climate change continues to accelerate, the effects are being seen on our nation's public lands. As a result, there have been several calls for major statutory revisions (Camacho 2010, 2011; Doremus 2010) to give agencies the legal tools necessary to manage resources while being realistic about what is and is not possible in a world affected by climate change. This important call to action has not received the attention it deserves; however, major legislative change is realistically a long-term goal, and waiting for its enactment is not a useful strategy for managing climate impacts in the near term. "Environmental protection laws are invariably redistributive; they impose substantial costs on some and confer benefits on others. For that reason, the institutional barriers to the enactment of such laws are particularly high…" (Lazarus 2003). Already enacted law is equally difficult to amend for the same reasons (Doremus 2010).

Unfortunately, federal natural resource managers need to immediately start making decisions and taking actions that will have long-term consequences. Agencies cannot wait for Congress to become interested in this issue and then debate and pass legislation before taking the effects of climate change into account in major management decisions, such as whether or not to support actions such as assisted migration, reintroductions, wildlife feeding programs, major irrigation projects, or other actions that would help ecosystems adapt to or avoid the effects of climate change. What can agency personnel, who are entrusted with safeguarding the nation's resources and recreational opportunities, and with upholding their legislatively decreed obligations, do immediately?

The solution I propose is major regulatory reinterpretation at the agency level. While any tinkering with federal land laws and their interpretation is always controversial, it is important to remember that without any change some managers may find themselves forced to "actively manage biological communities and landscapes to preserve them as they were

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before the onset of anthropogenic climate change. Such strategies would include activities like preventing invasions, engaging in irrigation activities, and regulating biotic interactions over time" (Camacho 2010). For instance, should managers prevent tree line from moving northward? Should they institute major wildlife feeding programs if suitable habitat/food sources become scarce in historic locations? Should they wrap glaciers in plastic (as the Swiss have done)? Broad use of such expensive management techniques would be wasteful and possibly counterproductive, not to mention intrusive, on landscapes noted for their solitude, naturalness, and/or wilderness qualities.

In 2011, the Council on Environmental Quality (CEQ) instructed all federal agencies to develop a climate change adaptation policy statement by the end of the year, complete a climate change vulnerability analysis by March 2012, and implement a climate adaptation plan in 2013 (CEQ 2011). This process provides an excellent opportunity for agencies to examine how existing statutory interpretations may exacerbate climate change effects or interfere with the agency's ability to effectively and rationally manage them. It appears unlikely, however, that agencies will take this opportunity to so completely and thoroughly review statutory interpretations in light of climate change. Further, CEQ's instructions on developing agency adaptation policy do not explicitly require agencies to do so (CEQ 2011). Craig (2010) similarly suggests regulatory reinterpretation as a component of a reimagined federal environmental law. While agencies will need to continue to operate within the existing legal framework, much could be accomplished through regulatory reform. This is a near-term climate change adaptation strategy that all federal land management agencies could adopt immediately. Below I provide two illustrative examples.

Wilderness areas

Federal wilderness areas are managed under the auspices of the Wilderness Act, which requires that lands be managed to preserve their "wilderness character" (Wilderness Act 1964). Wilderness is defined by the statute in part as "an area where the earth and its community of life are *untrammeled* by man…" (Wilderness Act 1964). The preservation mandate established by this language has been singled out as impractical or impossible under climate change scenarios because of its implied preference for historically accurate conditions (Camacho 2010, 2011; Craig 2010). However, this objection is based on a very narrow interpretation of what "untrammeled" might reasonably mean. "Untrammeled" could be understood as "natural" (i.e., historical) conditions, but it could just as easily mean "unbound," "unhampered," or "unchecked," which is the meaning Howard Zahniser, the author of the statute, had in mind when he incorporated the word into the statute in the first place (Harvey 2005). Doremus (2010) acknowledges this possible understanding of "untrammeled" and suggests "leaving room for nature" as a possible strategy; however, she fails to recognize that this may be exactly what several statutes already require, and she assumes that such a strategy would still aim to "maintain certain species or assemblages," which need not be the case. The Wilderness Act could be understood as expressly protecting "wildness." Roger Kaye, wilderness specialist for the US Fish and Wildlife Service, has defined this as "the state wherein those processes of an area's genesis, free from human purpose, utility, or design, are allowed to shape its future" (Kaye 2012).

National Park Service lands

The principal pieces of legislation guiding the National Park Service (NPS) today are the National Park Service Act of 1916 (the Organic Act) and the General Authorities Act of 1970 and its amendments. These statutes also require a preservation approach to management. The central precept of the Organic Act instructs the agency to "conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired fore the enjoyment of future generations"(National Park Service Act 1916). There has been a longstanding debate regarding whether or not this command is internally inconsistent (Rasband et al. 2004), but federal courts have determined that the agency has broad discretion to determine the proper balance between preservation and enjoyment (*National Wildlife Federation v. NPS* 1987; *Sierra Club v. Babbitt* 1999). The 1978 Redwood Amendments to the General Authorities Act reaffirm and strengthen the agency's conservation objective, over those of use and enjoyment, by emphasizing that agency authority must not be "exercised in derogation of the values and purposes for which these various areas had been established" (General Authorities Act 1978). The NPS's *Management Policies* tells managers that "unimpaired" and "in derogation" are to be understood together as creating a single management standard (NPS 2006). This management standard has been defined as the need to maintain the "integrity of park resources or values," and further defines park resources and values in part as "natural visibility; natural landscapes; natural soundscapes and smells…" (NPS 2006). Like interpretations of the Wilderness Act, this clearly is an effort to tie non-impairment to some static historical ideal, but that is not a necessary interpretation of the statutory language.

There are many other ways to interpret the "unimpaired"/"in derogation" language that would more realistically take climate change (and its likely affects on ecosystem assemblages) into account. Such interpretation changes are entirely within the agency's ability to make (Keiter 2011). "Although the National Park Service has been recognized for decades as a preserver of some of the nation's most precious places, the methods it uses to implement its basic mission are continually being refined in response to changing needs and increasing scientific awareness" (Mantell and Metzger 1990). Perhaps "unimpaired" means historically accurate, as many people have postulated. I posit however, that "unimpaired," like "untrammeled," could be interpreted to mean unbounded, free of most direct human manipulation, thereby leaving the system's own adaptive mechanisms unimpaired (or unfettered) to respond naturally to disturbance. The latter interpretation would counsel us away from large projects and intensive management techniques intended to maintain the historical conditions of an area regardless of the costs, and instead instructs us to keep ecological systems as healthy as possible (i.e., free of contaminants and other interferences or disruptors, where agencies have actual control over such things) and leave room for these systems to compensate unencumbered for the changes agencies cannot control. "[W]e are better off treating climate change impacts as a long-term natural disaster rather than as anthropogenic disturbances" (Craig 2010). I suggest that agencies accomplish this, wherever possible, through regulatory interpretation.

I am not suggesting that any agency ought to relax its vigilant preservation orientation to management; however, that approach may need to be informed by the realities of climate

science, rather than assuming that pre-European contact conservation goals are desirable or even possible. The critique that the pervasiveness of human-caused climate change effects negates the possibility of untrammeled or unimpaired lands is inapposite. There is no landscape that has not been affected by human action (even when discounting climate change), and yet many landscapes have been managed under the auspices of preservation-themed statutes. If former clearcuts and agricultural fields can become parks and wilderness areas, why should it be legally impossible for climate change-affected lands to be similarly managed? "[W]ildness is not the absence of all human effect; it can persist in environments that have been altered or continue to be influenced by external human factors such as climate change as long as we refrain from interfering with nature's autonomous response" (Kaye 2012). I believe that intensive intervention may make more sense in the many non-wild conservation units that already exist.

Developing new laws or amendments to older ones that rely on resilience theory, adaptive management, and managing uncertainty is an important, though perhaps long-range, goal. But, change is happening on the ground in our public lands today and managers need rules and standards to apply that are relevant, sensible, cognizant of today's realities, and *already extant*. This can be accomplished in many cases by reexamining and reinterpreting existing law. In many cases, adhering to existing regulatory interpretations unnecessarily circumscribes agencies' range of management options in the face of rapid ecological change. Regulatory reinterpretation is certainly not a wholesale or permanent solution, but it is a necessary beginning.

Craig (2010) and Doremus (2010) have each provided useful principles intended to guide future legislation, many of which could be put to use at the agency level in determining how best to reinterpret statutes to meet the realities of climate change as well as legal obligations. Where reinterpretation is not possible—for instance where legislated national wildlife refuge purposes are extremely specific (often requiring the maintenance of specific species)—then change will have to wait for a legislated solution. But such situations do not characterize all federal lands laws that limit management choices in the face of climate change. It is essential that the highest officials of each land management agency do the work of analyzing and determining what their agency's interpretation of relevant statutes will be in light of climate change. A piecemeal, unit-by-unit, or even issue-by-issue approach would lead to ad hoc decision-making that fails to take an entire conservation system's units into account. The federal land management agencies need to initiate a concerted program aimed at studying and answering these questions formally so that when disputes arise, as they certainly will, there is law to apply on the subject that takes climate change into account, rather than turning a blind eye to it. This will certainly require tradeoffs, and agencies, biologists, and the public need to collectively decide whether to attempt to preserve historical accuracy at the expense of wildness or vice versa.

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References

Camacho, A.E. 2010. Assisted migration: redefining nature and natural resource law under climate change. *Yale Journal on Regulation* 27: 171–255.

———. 2011. Transforming the means and ends of natural resources management. *North Carolina Law Review* 89: 1405–1450.

Council on Environmental Quality. 2011. Instructions for implementing climate change adaptation planning in accordance with Executive Order 13514 (I.A.2 and I.C.). Online at www.whitehouse.gov/sites/default/files/microsites/ceq/adaptation_final_implementing_instructions_3_3.pdf.

Craig, R.K. 2010. Stationarity is dead—long live transformation: Five principles for climate change adaptation law. *Harvard Environmental Law Review* 34: 9–73.

Doremus, H. 2010. Adapting to climate change through law that bends without breaking. 2011. *San Diego Journal of Climate and Energy Law* 2: 45–86.

General Authorities Act, 16 U.S.C. §1a-1 (1978).

Harvey, M. 2005. *Wilderness Forever: Howard Zahniser and the Path to the Wilderness Act*. Seattle: University of Washington Press.

Kaye, R. 2012. What future for wilderness within a climate-changing national wildlife refuge system? *International Journal of Wilderness* 18: 15–20.

Keiter, R. Revisiting the Organic Act: Can it meet the next century's conservation challenges? *The George Wright Forum* 28: 240–253.

Lazarus, R.J. 2003. A different kind of "Republican Moment" in environmental law. *Minnesota Law Review* 87: 999–1035.

Mantell, M.A., and P.C. Metzger. 1990. The Organic Act and the stewardship of resources within park boundaries. In *Managing National Park System Resources*. M.A. Mantell, ed. Washington, DC: The Conservation Foundation, 11–38.

National Park Service. 2006. *Management Policies: The Guide to Managing the National Park System*, §1.4. Online at nps.gov/policy/mp2006.pdf.

National Park Service Act, §1, 16 U.S.C. §1 (1916).

National Wildlife Federation v. NPS, 669 *F. Supp*. 384, 391 (D. Wyo. 1987).

Rasband, J., J. Salzman, and M. Squillace. 2004. *Natural Resources Law and Policy*. New York: Foundation Press.

Sierra Club v. Babbitt, 69 *F. Supp.* 2d 1202, 1247 (E.D. CA 1999).

Wilderness Act, §2, 16 U.S.C. §1131 (1964).

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