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This short essay by Peter Landres is part of a set of Essays that respond to an opening essay by Peter Alpert on “Managing the wild: should stewards be pilots?” To read the opening essay and the whole series of response essays, please visit:

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Managing Wildness In Designated Wilderness



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In his introduction, Peter Alpert sets out the problem facing many areas that are protected for their natural values: ecological conditions and processes may be so compromised that sustaining “natural conditions” is no longer possible without human intervention. This problem poses a critical dilemma for managing areas formally designated as “wilderness” by the US Congress.

In the US, designated wilderness is both an ideal and a place. As an ideal, wilderness is “an area where the earth and its community of life are untrammled by man” (Section 2[c], 1964 Wilderness Act). “Untrammled” means uncontrolled, unmanipulated, self-willed, or, in common terms, wild. It was chosen as the best word to convey the intention that modern people approach wilderness with humility, restraint, and respect (Scott 2001). Wilderness is an important symbol of willful restraint, setting the highest ethical standard for the relationship we have with the land, where “we deliberately withhold our power to change the landscape” (Nash 2004).

Wilderness is also a place where “natural conditions are influenced by the primeval forces of nature” that is “managed so as to preserve its natural conditions” (Section 2[c], 1964 Wilderness Act). When the Wilderness Act was written it was probably assumed that simply not taking direct actions within wilderness would protect natural conditions. We know the impacts inside wilderness from actions such as fire exclusion and stocking lakes with fish. We also now know the impacts from outside threats such as global climate change, non-native species, and a context of development. Clearly, wilderness is no longer influenced by only the primeval forces of nature.

While the legislated goal for wilderness is to be both wild and natural, in some situations implementing these goals creates a unique and central dilemma for wilderness managers: not restoring wilderness may allow natural conditions to further degrade, but taking action destroys the symbolic value of restraint and may influence natural conditions in unknown ways. The question is not whether we can take action, it is whether we should. Should we spray herbicides to control non-native invasive plants? Should we provide water to bighorn sheep that are now cut off from their seasonal sources? How about felling trees that have grown because of fire exclusion and are now ladder fuels threatening old-growth trees? Or periodically dumping lime in a stream to buffer acid deposition? Or removing landslide debris from a stream that now blocks spawning of listed fish? These and other challenges currently confront wilderness managers. Cole (2001) described this dilemma as one of two major issues that will shape US wilderness in the coming century (see also Cole 2000; Landres *et al.* 2001).

Some conservationists argue that our current biological diversity crisis demands that we manipulate wilderness to restore natural conditions. In my view, wilderness is even more rare and threatened than naturalness in our increasingly developed world. In addition, the unique legislated goal of wilderness means that the burden of proof for taking restoration action in wilderness is higher than for any other land. This does not mean that no action should be taken; it means that because wilderness and naturalness are both important, certain actions may be justified after carefully considering the full range of technical questions raised, including: Is there sufficient understanding about reference conditions and processes, as well as the long-term effects of restoration actions? Is restoration even possible, given the context of the area and the pervasiveness of ecological change? How long will the restoration actions take, and how long will the effects of these actions last? How large an area will be affected? What are the local, regional, and national perceptions about wilderness, naturalness, and the proposed actions? How will the public be involved in substantive discussion and does the public sufficiently trust the agencies to do this fairly?

Manipulating wilderness, even for the positive purposes of restoring natural conditions, also raises ethical questions, including: Is there a moral obligation to mitigate the impacts of prior manipulation? Are short-term restoration

actions justified to restore natural processes that operate over the long-term? Are actions justified in wilderness when restoring a legally threatened or endangered species? Do the symbolic value of wildness and the ecological value of naturalness have equal importance? Is it even appropriate to define a target for natural conditions in wilderness?

Only after answering such questions and making all value judgments and assumptions explicit can we evaluate the relative risks and benefits of taking action in each situation and reach a decision on whether to do so. This decision may be to take action and accept, albeit reluctantly, the “gardenification” of wilderness (Janzen 1998). In other situations the decision may be to not take action and accept the degradation of naturalness. Deciding whether to manage the wild in wilderness – whether to be guardians or gardeners – should be difficult because the consequences are large, demanding that we fully understand what we gain and lose by our actions.

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