



It's Ethics All the Way Down as National Parks Undergo Change

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It's an unseasonably hot day in the high country of Glacier National Park in Montana. You are five miles into your hike, sweating heavily. You sit down by a stream to rest and cool your feet. As you start to unlace your boots, you notice the silvered side of a big fish—a bull trout—languishing in a pool in front of you. You can tell the trout is struggling by its slow movements and the labored gaping of its gills.

This bull trout has the same problem as you. It's over-heating. And while you know that within a few hours you will be back in your air-conditioned car heading into town for a shower and a refreshing iced drink, the bull trout in front of you has no such luck. The hot stream is its home. If the weather doesn't break soon, the stream may well become its coffin.



Plants and animals across the US National Park System are having to adapt rapidly to climate change. In many cases, they can't adapt fast enough to survive without help (Wu et al. 2018). This puts National Park Service (NPS) managers in a difficult position. The mission of the agency states, "The National Park Service *preserves unimpaired* the natural and cultural resources and values of the National Park System ..." (US Department of the Interior 2025; emphasis added). But these days it can be difficult, if not futile, to try to preserve those resources and values at all, much less preserve them unimpaired. Managers are forced to make challenging decisions about how to steward the resources entrusted to them in the face of change. This raises novel questions about what sort of management is now permissible (Schuurman and Lawrence 2025). Should bull trout be moved to higher-elevation lakes and streams to escape the heat? Can the landscape be manipulated to create cooler water? Or should the park not intervene at all? Managers face choices about whether to try *resisting* impending changes to resources, *accept* them, or intervene to consciously

direct the landscape in response to climate change. NPS guidance characterizes these three options as Resist, Accept, or Direct (i.e., the RAD framework; Schuurman et al. 2020).

Decisions about responding to change have several dimensions to them. Some of them are scientific. How warm can the water get before bull trout die? What new parasites become a threat in a warming world? But other dimensions of these decisions are not in the realm of science. They entail social, philosophical, and ethical considerations. A recent case study published by NPS on how existing policies apply to changing biological resources stated that "biological information will be necessary but not sufficient to answer this type of question. Instead, the values and ethical and philosophical reasoning will need to be foregrounded..." (Leong et al. 2025: 43).

Ethical values are embedded in policies and management decisions for agencies like NPS, but are rarely talked about explicitly, even though one can't make a decision without

them. For example, to protect an endangered species is to say the species has an ethical value greater than the interests causing its demise. To maintain “naturalness” or “wildness” as legislated in the Wilderness Act of 1964 is to commit to the ethical importance of the quality of wildness on the landscape. To fight climate change is to maintain that the climate of the last 10,000 years protects more of what we value than the one emerging as a result of increasing greenhouse gases. Even using “the best available science”, as enshrined in the National Parks Omnibus Act of 1998 and NPS Management Policies (NPS 2006), is to ethically value data over personal preference or the familiarity of past practices.

Deciding how to act inevitably means taking an ethical position on something. Whether managers explicitly think that way or not, management decisions are built on a deep foundation of ethical commitments, a set of “judgments made by people” (Clifford et al. 2022). It’s ethics, in other words, all the way down.

Despite the presence of ethics in every management decision, ethics language and tools are unfamiliar to most public land managers. Fortunately, ethics is not a complicated, abstract specialty conducted by toga-wearing Greeks who ponder the imponderable. It is the fundamental activity of deciding what matters, a shared deliberation about what to value and what world we want to live in. Park management includes questions of this kind at every turn.

Ethics guidance for NPS staff has been largely constrained to professional ethics; i.e., rules on workplace behavior found in the US Department of the Interior Ethics Guidance (2024). Recognizing the need for something else, the National Park Service, University of Montana, and North Central Climate Adaptation Science Center collaborated on a project designed to identify where else ethics comes into play as managers make difficult choices in the face of change. The project team consisted of researchers and agency staff with expertise in environmental philosophy, social science, and political science. We collectively studied agency policies, publications on RAD, and data from interviews and focus groups with NPS staff at parks already grappling with ecological transformations under a changing climate (Cravens et al. 2025). We used these sources, along with the background of the researchers in environmental ethics, to identify common ethical themes that parks are dealing with.

Five prominent ethical values bubbled to the surface. The first three were values managers sought to protect on the landscape.

The first one, *the value of species*, captures a widely held view about the ethical significance of wild plants and animals. It is captured in the language in the Endangered Species Act of 1973. The Act states that species are of “esthetic, ecological, educational, historical, recreational, and scientific value to the Nation and its people.” These are, at least in part, ethical values, a type of moral good provided by organisms. Species matter morally, in other words, and should be protected.

Ecosystem composition and function came next. Ecosystem composition and function are qualities measured primarily by scientists. But, beneath the science, it is an ethical commitment that makes them worth securing in the first place. When you unpack this ethical commitment a bit more, you find it might hinge on the ecological services the system provides to people and wildlife. Or, it might be rooted in the system itself, in its “integrity, stability, and beauty,” as Aldo Leopold put it in his *Sand County Almanac* (Leopold 1970). In either case, it is the morally important elements of a functioning ecosystem that make it worth protecting.

Nature’s autonomy is another value prominent in landscape protection. The Wilderness Act of 1964 equates this value with the “untrammelled” character of the land. This character ensures the land’s “primeval character and influence” remains dominant. But even outside of wilderness areas, the idea that protected lands should be ecologically self-maintaining is common. In an ideal world, park managers would leave nature to its own devices as much as possible, letting it be unmanipulated or only lightly manipulated to the greatest extent they can.

In addition to values embedded in the landscape, another important ethical commitment common among park managers is *justice*. Justice is about treating people fairly. Park users have equal rights to enjoy the benefits of parks. Communities living around parks have the opportunity to provide input on decisions that directly affect them. Tribes and Traditionally Associated People whose activities may have been abruptly curtailed at the park’s creation are engaged and consulted. These three—shared costs and benefits, fair process, and appropriate engagement—are each important aspects of

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justice. Protecting and managing landscapes and cultural resources ethically means ensuring interactions with people are just.

The last ethical value prominent in park management we call *relationships gathered in place*. The National Park Service not only safeguards physical things. It protects the relationships between them. It protects relationships between people and processes as well as between people and their history. The public has myriad different relationships with protected lands. They value family and cultural traditions, relationships born of encounters with animals, and the possibility of experiencing contemplative time away from the city with friends. Parks also provide connections to ancestors and the promise of relationships to come. Protected areas often provide relationships unavailable elsewhere, so another ethical imperative for managers is to do what's possible to make those relationships endure.

Relationships gathered in place is a broad enough category that it might be thought of as a particular lens on the four ethical values already mentioned. Park visitors often return home having entered into cherished relationships with species, with ecosystems and the forces of nature, and with different cultures and their histories. As landscapes change, some relationships become vulnerable, prompting difficult decisions about how to maintain them. Some will inevitably be lost. The direct experience of glaciers in Glacier National Park, for example, is predicted to become a thing of the past by the end of the century (Baker et al. 2018). New experiences and relationships will emerge. Thinking about these relationships is a common way for managers to plan for the future.

These five are not the only ethical values managers attended to in parks. But they seem to be common ones. All of them appear in the context of another set of ethical commitments managers often reference. These commitments are to the National Park Service itself, to the statutes and laws under which managers work, and to their own sense of integrity and character. Personal and institutional values are the context in which the other five appear. Park managers protect things like ecosystem composition and function on park lands not just because of statutes. They do it because they feel it is the right thing to do. It's a deeply personal moral matter as much as a statutory one.

One of the key takeaways from this analysis is that ethics is *everywhere*—but often unseen or unacknowledged—as

park staff make difficult decisions about how to respond to ecological transformations. The first step is simply to become aware of that fact.

Once aware of the ethical values embedded in their work, a park manager might wonder what they should do when multiple values are at play and potentially conflict. For example, bull trout are a protected species under the Endangered Species Act. So, there is clearly value placed on preserving the species itself. Bull trout are also a culturally significant species for Indigenous Peoples across the West, suggesting a need to preserve important relationships gathered in place. But if the waters in which they live become uninhabitable, does moving them up in elevation into cooler waterways align with valuing nature's autonomy?

It is worth noting that ethics is not an exact science. It does not provide simple or sure-fire ways of solving conundrums. What it can do is lay bare the character of a conundrum and offer a chance for more explicit conversations about what counts most. One simple step towards making more ethically informed decisions is to identify the different values that might be at play, who those values matter to, and why.

Important contextual details help focus this deliberative process. For example, a manager might ask whether their agency's mission prioritizes some ethical considerations over others. Or they might identify priorities particularly salient to the patch of land they manage. Does the protected area have a set of stakeholders or rightsholders with especially pressing interests? Are there important relationships at stake in this location that cannot be replicated? Are matters of Tribal sovereignty in play? A part of a park that is wilderness, for example, might not be the most suitable place to disrupt nature's autonomy. But a park with a particularly emblematic plant or animal might prioritize this species in the face of change over the preference to leave nature alone. Different management strategies could emerge as more suitable depending on the context.

What about the fish struggling on that hot day in Glacier? Those bull trout occupy one of a diminishing number of the pristine, cool-water habitats they need. Their threatened status under the Endangered Species Act elevates their ethical importance as does the ecosystem function they perform as a top aquatic predator. Both of these considerations, together with the cultural importance they and the entire species have for local Tribes, ended up

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outweighing the importance of the autonomy of the system in which they live. Accordingly, a decade ago managers decided they would intervene in nature’s autonomy and move some bull trout to a higher-elevation lake away from heat and invasive fish predators (Sentner 2024). They are currently doing well in their new habitat.

When the ethical dimensions of land management are better illuminated, there is no guarantee that decisions will immediately get easier. But we are convinced that naming these values helps focus difficult debates. It will also help with the transparency and robustness of decisions about how to respond to change. A manager will be in a better position to say *why* they chose one strategy over another. They will have a better way to articulate *what is at stake* when they propose some interventions and decline others. They will gain language suitable for a job that, at its heart, has always been about doing what’s morally right for the land and for the people that enjoy it.

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