Chapter 5.5. Integrating Tribes and Culture Into Public Land Management

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Many of the cultural traditions practiced by Native Americans were channeled from or associated with their experiences with the natural world. These traditions, in turn, served to inform land management practices that effectively maintained a sustainable ecological balance among people and land for thousands of years. Today, many Native Americans find it difficult to continue the ecological and cultural, or “ecocultural” practices of their ancestors (Long et al. 2018). Here we explore some of the factors that give rise to these challenges. This chapter provides a general overview of traditional land management practices employed by Native American Tribes throughout the American West.

The consequences of Native American land management practices being excluded from decision making are explored, but so too are the ways in which land management agencies have started to become more accepting of these practices. Many of the authors and researchers presented in this chapter contend that factors such as sense of place and traditional ecological knowledge could play a larger role in the decisionmaking process for land management agencies, not only because of the ecological benefits that come with restoring traditional practices but also to provide an avenue for the preservation of important aspects of cultural heritage.

These diverse characteristics and identities present opportunities for multifaceted, and therefore flexible, collaborative decision processes appropriate for managing periods of environmental, institutional, and economic transition. In addition to the economic attachments to reservation and traditional lands, Native Americans have maintained long-established cultural and spiritual connections to the natural environment that precede western economic measures of well-being. For example, the use of prescribed burning as a land management tool plays a prominent and key role in the practices of many tribes.

Guiding Questions

• How do land management agencies include tribal traditional ecological knowledge practices in forest planning and decision making?

• How do land management agencies include spiritual components (i.e., sense of place for tribes) in land management planning?

The United States judicial system differs in the way it litigates cases that deal with Native American rights: In some cases, tribal nations are regarded as sovereign entities with all the rights afforded to other nation states, while in other cases, tribal nations are subject to the same Federal and State controls that oversee other governmental bodies (Stidham and Carp 1995). These differences significantly impact the ways in which Native American Tribes develop and implement land management practices. While courts have granted Native American Tribes sovereignty over some ancestral or reservation lands, these rights are often not enough to empower tribes with land access benefits, as power over these lands ultimately remains under the purview of government and private industry (Wyatt et al. 2015).

A significant difference in land management perspectives exists between governmental agencies and tribal entities. At the crux of this difference lie the ways in which agencies and tribes choose the economic benefits of land versus its cultural uses. Representatives from government agencies tended to emphasize the economic benefits of land, while tribal leaders are, for the most part, dismissive of economic benefits (Wyatt et al. 2015). This rift is further exacerbated when considering the problems that arise from managing the cultural aspects of ecosystems through socioeconomic policies (Pleasant et al. 2014), as many Native Americans regard the right to maintain a cultural connection to the land just as important as any other land-right (Curran and M’Gonigle 1999). Indeed, Burger and Gochfeld (2010) have shown that it is more common for Native Americans to engage in spiritual activities, such as communing with nature and praying or meditating in a natural setting, than it is for Caucasians (fig. 5.5.1).

Also significant is the difference in metaphysical explanations of the natural world between westernized scientists and Native Americans who draw from traditional knowledge (Ermine 2007); as a result, it is often difficult.

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for one group to fully appreciate the other’s worldview (Christianson 2015). Obviously, the western scientific tradition, and the worldviews that arise from it, possess great import to modern civilization, but this is not the only means for assessing the world and experience. The conclusions reached by indigenous science are distinct from those found in western science, and both are legitimate in their own right; for thousands upon thousands of years, indigenous people have experienced the environment in a deep and emotional way (Dongoske et al. 2015). This perspective has left many tribal managers with a desire to pursue a fresh start by initiating their own land management institutions (Diver 2016).

As Huntsinger and Diekmann (2010) note:

Since the mid-1990s, the Yurok Tribe has run its own forestry program, although the timber harvest plans they prepare can be done in accordance with federal rules and approved by the BIA and other agencies. Today, the Yurok Tribe uses Douglas-fir harvest as an income source, but some land is dedicated to production of basketry materials, and redwoods are left uncut. Yurok forestry now includes burning for beargrass production, clearing brush around the homes of elders, reducing fuels, creating fuel breaks, making posts and poles for traditional structures, watershed restoration, and selling timber. Spiritual leaders play a significant, if somewhat informal, role in forest management in terms of the BIA-mandated institutional structure (p. 368).

Researchers are beginning to realize the importance of including a variety of Native American perspectives when developing ecological policy that is intended to protect humans and the environment (Greenberg and Crossney 2006). One of the ways in which tribes and State agencies have successfully collaborated after environmental contamination is by conducting a Natural Resource Damage Assessment. Serving as the basis for many management practices, it concerns “determining status and trends of biological, physical, or chemical/radiological ...

Figure 5.5.1—Native Americans often view the natural world differently than do government agencies, particularly in terms of economic benefits, cultural connections, and spirituality (photo by John Cichoski, Forest Service).
conditions, conducting environmental impact assessments, performing remedial actions could remediation fail, managing ecosystems and wildlife, and assessing the efficacy of remediation, restoration, and long-term stewardship” (Burger 2008, p. 6).

To effect holistic understanding of the environment and its stressors, environmental analyses would only be enhanced with the inclusion of Native American perspectives and insights (Dongoske et al. 2015). A policy of sustainable equity could guide management decisions by linking these decisions with social justice and a rights-based interpretation of equity (Huntsinger and Diekmann 2010). Even though including Native American perspectives in land management decisions can be time-consuming and intensive, it can also be rewarding for communities and State agencies (Christianson 2015).

Part of this inclusion entails considering aspects of ecosystem valuation typically not considered. Social, sacred, and cultural aspects of ecosystems have historically been overlooked in land management decision making but are crucial to Native Americans (Burger and Gochfeld 2010). Native American knowledge structures can often be characterized by the deep intergenerational origins that involve family members and are typically conveyed through storytelling or demonstration, embedding within the knowledge structure a cultural situation or context that represents ontological understanding (Grenier 1998).

Instead of framing land management policy entirely around the consumptive properties of nature, environmental values can integrate detailed knowledge of regional ecological conditions with a conservation ethos, especially when considering Native American cultural traditions of places and landscapes (Winthrop 2014). As stated by Peppler (2017), a cultural model of knowledge formation helps “describe the tacit understandings people have about the world around them, and provide insight on how people perceive, remember, and describe natural features and how they understand, utilize, and manage natural resources and their surroundings” (p. 325).

The following subsections are prefaced with specific questions generated from the public and the staffs of the Lassen and Modoc National Forests (hereafter, Lassen, Modoc, or Lassen-Modoc) as part of the process for these two forests to revise their forest plans. While the literature addresses general topics related to these questions, due to the very limited literature on these topics, each specific question cannot be addressed solely using peer-reviewed scientific literature. Therefore, each specific question could be answered more pointedly in the forest plan using the literature in this section as a general guide. Where possible, specific studies to the region are cited below.

**Tribal Value of Place**

- How do local tribes define “sense of place” across the Lassen-Modoc region?
- What are the social and cultural values that local tribes attach to the Lassen-Modoc region?
- What are the cultural, social, economic, and spiritual uses of tribes in the region?

Place identity concerns the personal relationships human beings form with the physical environment that manifest into experiences of significance and meaning (Gunderson and Watson 2007). It is typical for experiences of this nature to conjure knowledge forms that are localized, place-based, and recognized through the patterns that come with continually inhabiting a place (Lauer and Matera 2016). Knowledge of this sort permeates a situational perceptiveness about a place by producing an intuitive wisdom that is key for recognizing certain types of environmental phenomena, which may not be available through other sources of weather and climate data (Peppler 2017).

Belief systems that arise from this sort of knowledge paradigm have been described as sacred and holistic, engendering reciprocity between humans and the nonhuman world to the point where human beings are inseparable from our surroundings (Deloria 2006). Researchers, such as Cruikshank (2012), conceptualize indigenous forms of holistic knowledge in ways that regard animals and features of landscape as possessing characteristics that western minds typically ascribe only to humans, e.g., having points of view, exhibiting agency, and engaging in reciprocal communication. From this perspective, a sense of place is derived from the traditional meanings that are attributed to certain areas, which can vary in scale—from specific spots in a landscape to an entire crest of a mountain (Gunderson and Watson 2007).

Native American input, including traditional knowledge and place identity information, can play an important role in land management decisions. Just after World War II, the ancestral lands of the Winnemem Wintu, a Native American tribe from Northern California, were submerged
after the construction of the Shasta Dam, severely altering their tribal identity (Garrett 2010). According to Garrett, “The tribe’s remaining traditional cultural properties are under continual threat of loss and/or destruction, leaving the tribe’s ability to practice traditional ceremonies crippled by legal battles and fights…” (p. 346). In addition, (Dallman et al. 2013) argue that water policy in the United States has favored urban and agricultural development over Native Americans’ needs, and for the Winnemem Wintu specifically, they argue that culturally hegemonic meanings of natural resources and landscapes have privileged the water needs of modern development and have denied the importance of indigenous emotional connections to sacred places by limiting access to and protection of ancestral territories. Ninety percent of Winnemem ancestral lands along the McCloud River were flooded in 1945 when the Shasta Dam was completed for the Federal Central Valley Project. In 2000, the U.S. Bureau of Reclamation began investigating a proposal to raise Shasta Dam to increase surface water storage capacity for agricultural production. Dallman et al. (2013) argue that this proposal would destroy remaining Winnemem sacred spaces that offer deep emotional connections crucial to maintaining their cultural identity and ancestral memories.

Other tribes from the West have similar experiences. As Glowacka et al. (2009) document, the Hopi Tribe of Northern Arizona regarded the spraying of artificial snow made from treated sewage on Humphrey’s Peak to be a contamination of a sacred place. Humphrey’s Peak is the highest of a group of mountains called the San Francisco Peaks, which is the home of the katsinam, the Hopi’s ancestral deities. The area serves as a place to conduct ceremonies, participate in prayer, and gather the ceremonial objects that are incorporated into their religious practices.

Tribal members from the Klamath and Modoc Tribes of Southern Oregon and Northern California are concerned about the protection and preservation of rock cairns and prayer seats, which are connected to the traditional practice of vision quests. These ancient and sacred sites not only spiritually link living people with their ancestors but also are crucial for the long-term cultural survival of the tribes. As such, the Klamath and Modoc Tribes are committed to protecting these sites from the persistent threats of development, timber harvesting, and vandalism (Haynal 2000).

The preceding examples show how the concerns and perspectives of many Native American Tribes reflect their close attachments to place as well as the historical awareness that anchors and gives meaning to these attachments (Norgaard 2007). The challenges that come with the destruction of sacred places can be understood as challenges related to cultural self-determination, which is a persistent struggle faced by tribes throughout North America (Kingston 2015).

In working with tribes, it is necessary for land management agencies, to recognize “that Indigenous communities have different values, concerns and knowledge bases than non-Aboriginal communities” when it comes to certain land management decisions (Christianson 2015, p. 197). Part of this recognition involves transcending individual monetary valuations so that shared social values encompass social goods and cultural importance (Kenter et al. 2015).

For many Native Americans, the value of human well-being is closely associated with experiencing the natural environment (Bieling et al. 2014). However, it is not just the well-being of people experiencing the natural world today but also those who will be experiencing it in the future.

**Interactions in Tribal Land Use and Government Land Management**

- What are the traditional land uses of local tribes across the Lassen-Modoc?
- How have tribal land use practices changed?
- What are the interactions between tribal land use (i.e. gathering, hunting, spiritual) and land management planning?

Land management agencies, such as the U.S. Department of the Interior, National Park Service, and the U.S. Department of Agriculture, Forest Service, are wrestling with questions about how and under what conditions Native American perspectives could be incorporated into land management decisions (King 2007). Beatty and Leighton (2012) identify two coinciding trends that have ushered in an increased awareness of and receptiveness to Native American stewardship of forests and other public lands:

The first is the growing trend within reservations across the United States toward self-determination, leading to forests and other resources managed not by the Bureau of Indian Affairs, but by the tribes themselves, in accordance with their values and objectives. The second is a growing recognition amongst the academic and management communities
that management of all lands can benefit from seeking out Native perspectives, especially those founded in traditional knowledge systems (p. 565).

Nevertheless, decision making continues to proceed from what Hibbard et al. (2008) describe as rational, top-down approaches, which have marginalized indigenous communities by dismissing their cultural traditions as irrational while simultaneously imposing external values, policies, and actions upon native communities and landscapes. This approach toward land management arises from the traditions of western European philosophy, specifically the assumption that human beings are capable of removing themselves from and controlling the natural world (Pierotti and Wildcat 2000). Indeed, much of what accounts for biodiversity protection comes in the form of policy that prohibits humans from participating in consumptive and nonconsumptive activities through State-established protected areas (Hayes 2006). Well-intentioned laws, such as the National Environmental Policy Act of 1970, become inadvertent records of exclusion because of their exclusive reliance on scientific materialism to evaluate environmental impacts (Dongoske et al. 2015).

Native American ways of understanding the environment, also known broadly as Traditional Ecological Knowledge (TEK), offer an alternative approach. Based on detailed observations of nature connected with specific places, TEK considers all elements (humans, animals, plants, landforms) of a physical space to be constituent parts of a general community (Pierotti and Wildcat 2000). Dongoske et al. (2015) note “many Native American Tribes perceive the environment through an animistic ontological lens that embodies a sense of stewardship, manifest through a spiritual, umbilical connectedness to the natural world” (p. 36). In other words, TEK regards the success of conservation efforts depends on extensive community participation and control over land management decisions that ensue, in part, from networks of localized knowledge (Hayes 2006).

A recent survey (Beatty and Leighton 2012) of forest resource managers and decisionmakers from Native American Tribes showed that tribal managers do have an interest in collaborating with managers from government agencies, especially regarding the integration of TEK with western perspectives. Legislation, such as the 1992 amendments to the National Historic Preservation Act, encourage partnerships among tribal members and government researchers by authorizing tribes greater sovereignty over ancestral lands (Stanfill 1999). However, feelings of mistrust and resentment within tribal communities still linger (Flood and McAvoy 2007). Flood and McAvoy note that it is important for Forest Service managers to treat tribal members with mutual respect before attempting collaboration and that interpersonal dialogs possess great potential in establishing trust among all stakeholders.

Integrating and applying TEK with western science mandates “enduring commitments to knowledge-sharing that extend beyond the usual boundaries of professional training and cultural orientation such that learning can proceed, legacy myths might be corrected, and the forests and the people will benefit” (Mason et al. 2012, p. 187). McOliver et al. (2015) advocate for knowledge-sharing not just between Forest Service managers and tribal members but also among tribes. They argue that when tribes participate in knowledge-sharing, it encourages native communities to sanction their own research projects and establish communal networks of shared knowledge.

The Native American heritage of communal interdependency helped explain why most outside economic programs that were historically imposed upon Native communities usually ended up failing. Thus, it is essential that economic development either be directed by tribal members themselves or in full partnership with outside groups (Kingston 2015). The central challenge, then, becomes how to “grow indigenous economies in ways that increase independence of native communities and overcome the dependence created by colonialism” (Harris et al. 2011, p. 287). One way is to legitimate subsistence economies as viable economic models.

The sharing that occurs in subsistence economies establishes and maintains cohesive bonds among tribal members, whereas market-based commodity exchanges transpire between independent parties whose interactions are based solely on exchanging one item for another (Dick 1996). Dick (1996) goes on to assert that when communal subsistence practices become disrupted through the imposition of market-based forces, the cohesive bonds that tie tribal members to one another may fracture or dissipate entirely.

Just as important as communal bonds are to maintaining the integrity of a subsistence economy, so too are the ecological bonds that tie people to the land (fig. 5.5.2). The protraction of subsistence economies is contingent
upon the responsible use and extraction of environmental resources so that the biological integrity of an ecosystem becomes capable of sustaining itself in perpetuity (Burger 2008). Such was the case for many tribes throughout the West who utilized a harvesting technique to collect the inner bark of various pine species, which served as an important nutrient source for many native people (Ostlund et al. 2005). The inner bark was harvested in a sustainable manner, in that trees were not killed during the process, and, consequently, the overall ecological impact on the forest was negligible (Ostlund et al. 2005).

Before European contact, the Klamath and Modoc Tribes of Southern Oregon and Northeastern California took an active role in the management of various plant communities. Deur (2009) identifies multiple and complex plant management strategies utilized by the Klamath and Modoc people that are consistent with modern definitions of plant cultivation. Some of these practices included “the management of black huckleberry (Vaccinium membranaceum) yields in subalpine environments, the management of marsh-edge environments for yellow pond lily (Nuphar polysepalum), the tending of “epos” or yampah (Perideridia species) digging sites, and the selective harvest of tree cambium, sap, and wood—especially from pines (Pinus species) and junipers (Juniperus species)” (Deur 2009, p. 296). Practices of this nature suggest a widespread application of plant management that functioned to geographically coalesce preferred species.

The Pit River Tribe (Ajumawi band) of Northeastern California also participated in sustainable harvesting practices. During the course of generations, families returned to the same wild mushroom plots to help them clearly distinguish between edible and toxic varieties (Buckskin and Benson 2005). Fungi play a significant role in maintaining the ecological health and sustainability of forests (Trappe et al. 2009), and some of the harvesting practices used by the Pit River Tribe (e.g., not disturbing the mycelium, giving small mushrooms the chance to grow larger, leaving old mushrooms to spread spores) are already regarded as beneficial in modern management contexts, suggesting that a basis for common ground already exists between land managers and tribal members (Anderson and Lake 2013).

Figure 5.5.2—Collecting, sharing, or bartering nontraditional forest products by all Americans helps preserve communal bonds, many of which are also central to Native American communities and reinforces the connections of indigenous cultures to the land (photo by Ken Sandusky, Forest Service).
Ultimately, collaboration between State and Federal agencies “can not merely encourage Native Americans to respond to agency inquiries, but also ensure that agency procedures for planning and decision making are responsive and sensitive to the special needs and concerns of Native Americans” (Stanfill 1999, p. 70). The most important question in the land management debate may not concern the ownership of public lands or even who does what, but instead asks how land management agencies can create policy that translates into success for both the agency and tribes (King 2007).

**Tribal Use of Fire Management**

- How have changes in climate, invasive species, and wildlife habitat impacted tribal land-use culturally, socially, spiritually, and economically?

For many generations, Native Americans dealt with the impacts brought upon their communities and lands by Western settlement and expansion. The land use practices that accompanied settlement, such as mining, cattle grazing, and timber extraction, had far-reaching consequences on many landscapes throughout the West (Fry and Stephens 2006). For example, according to Sneider (2012), relationships with the Paiute Nation became key to Western movement into the area as their lands stood directly in the path of settlers and miners moving toward California through the Sierra Nevada. Sneider (2012) argues that Paiutes were subject to various methods of removal and attempts at assimilating or civilizing the Indian, then became wards of the State through the Indian Appropriation Act of 1871. Today, native tribes can grapple not only with the environmental repercussions of Western settlement but can also deal with the effects levied upon their lands by global climate change.

Christianson (2015) predicts that Native Americans may experience greater overall impacts from climate change than the general population. In fact, many indigenous agricultural practices are being adjusted at the local level, as climate change impacts the ability to observe environmental indicators that had been reliable until recently (Peppler 2017).

Impacts “such as increased frequency and intensity of wildfires, higher temperatures, extreme changes to ecosystem processes, forest conversion and habitat degradation are threatening tribal access to... the quantity and quality of resources tribes depend upon to perpetuate their cultures and livelihoods” (Voggesser et al. 2013, p. 615). The ecological balance that has sustained North American temperate and boreal coniferous forests through indigenous burning practices becomes compromised when invasive species grow and flourish in areas they have not previously (Christianson 2015). Traditional burning practices rely on predictable environmental cues (Huffman 2013) that are increasingly being disrupted because of climate change and species invasion (Voggesser et al. 2013).

The significance of ecological and economic damage caused by invasive species is widely recognized and brings to the fore political issues regarding which species could be managed and which populations are impacted by management decisions. For example, in response to a spotted knapweed (Centaurea stoebe) invasion in a rural region of Northern California, members of the Karuk Tribe, as well as those outside of the tribal community, agreed that the invasive species was undesirable; however, tribal members were mostly apprehensive of potential herbicide use (Norgaard 2007).

Significant changes to species composition in forests could deprive tribal communities of culturally important resources and negatively impact historical means of subsistence (Voggesser et al. 2013). Voggesser et al. (2013) offer a solution that is grounded in collaboration:

“To address these challenges, robust federal-tribal relationships are needed, particularly when changes affect treaty rights, tribal lands, and resources held in trust. Collaboration, knowledge-sharing, and joint action by tribes and nontribal stakeholders can lead to more effective and sustainable planning efforts around climate change and invasive species” (p. 622).

Collaboration of this nature requires involving tribes in meticulous and conscientious decisionmaking processes that are open to a variety of knowledge forms, such as TEK (Berkes 2009). Incorporating definitions of health as defined by local tribes into the Federal and State regulations that prescribe land management policy, such as the National Environmental Policy Act of 1970 and the National Forest Management Act of 1970, would give credence to traditional subsistence practices (McOliver et al. 2015). Prescribed burning practices that are based on TEK have the potential to lessen the destruction of forests caused by severe wildfires, which, because of climate change, are increasing in frequency (Stan et al. 2014). Maintaining the productivity of land-based activities in the face of climate change will likely remain a challenge for land managers,
which is why incorporating indigenous burning practices that mitigate the severity of wildfires could benefit both policy and land (Hertel 2017). Obviously, building strong relations with indigenous communities is a process that takes time (Christianson 2015), but it is a process that benefits all parties involved.

References


