

# Current Issues in Public Lands Management

### Main Takeaway

**Public lands and waters offer many ecological, social, cultural, and economic benefits.**

**Every type of use of public lands provides benefits and also has impacts on the land and other users.**

**Land managers must balance legal requirements and the varying interests of public lands user groups when making land management decisions.**

## Introduction

Public lands and waters provide significant benefits to people, the environment, and the economy. They provide these benefits in a variety of ways depending on how the lands and waters are being managed and used. Every type of use of public lands provides some sort of benefit to the user or to the public. At the same time, many of these uses also have adverse impacts on the environment or on other public lands users.

Land managers, employed at the local, state, and federal levels, must make management decisions based on the laws and policies that govern the lands they manage, and also on the needs and interests of user groups. Making these decisions can be a challenging process. These decisions nearly always involve multiple user groups whose interests may be in conflict with one another. Sometimes, user group interests partially coincide and partially conflict. Land managers must weigh these interests in determining how a particular area of public lands will be managed.

This module will provide readers with an introduction to the wide range of uses and interests in public lands and waters and review some current issues for land managers and public land users. In doing so, we hope to help learners develop a framework for understanding the complex issues that land managers face every day.

## Benefits and Impacts of Public Lands Uses

### Recreation

Public lands and waters support a wide variety of recreational activities. This includes camping, climbing, hiking, backpacking, paddling, biking, skiing, fishing, hunting and other non-motorized activities. It also includes boating, off-highway driving, heli-skiing, e-biking, snowmobiling, and

RV camping. Module 1 provides an overview of where each of these recreation activities are permissible.

Recreation is the most popular use of public lands and waters. In a typical year, the lands and waters managed by the National Park Service see about 250 million recreation visits. Many more people visit lands managed by other land management agencies.

The benefits of public lands recreation use are significant. Individual benefits include improved physical and mental health, improved quality of life, opportunities to build community and establish a connection to cultural and natural history, and opportunities to experience quiet and solitude in natural spaces. Collectively, recreational users also contribute to a robust and growing outdoor recreation economy.

At the same time, like many of the other uses listed below, recreation can have adverse impacts on natural resources like plants and wildlife, particularly in areas of overuse or when recreation is poorly managed. Recreational use is also largely incompatible with natural resource extraction activities. Consequently, these activities generally do not occur in the same area.

### Education

Public lands offer a unique opportunity for a wide range of education relating to the natural sciences, cultural history, art, applied mathematics, and other subjects. Outdoor spaces support educational opportunities that are nature-based and experiential and that complement traditional classroom learning. Public lands also provide learning opportunities for adults through field-based interpretive signage, visitor centers, and a variety of educational presentations. These activities are generally low-impact, but do not often occur in the same area as natural resource extraction activities.

## Spiritual and Cultural Uses

As we explain in Module 2, Indigenous peoples have lived on and used the lands and waters that we now consider public lands since time immemorial. Despite being displaced and relocated, violently in some cases, Indigenous people continue to have a deep spiritual connection to these places and continue to use them for a variety of spiritual and cultural practices. Examples include conducting tribal ceremonies, hunting, fishing and gathering of sacred medicine and herbs. Non-Indigenous people also report feeling a spiritual connection to nature and often visit public lands for this reason.

Providing opportunities for these activities benefits the individuals that hold these beliefs. It also benefits humanity as a whole by preserving important and diverse cultural and spiritual traditions. Protecting lands for spiritual and cultural activities usually requires land managers to limit other uses. Recreational activities like rock climbing and photography are sometimes incompatible with cultural activities. Natural resource extraction is also incompatible and sometimes alters or damages sacred sites on public lands.

## Subsistence Hunting, Fishing and Gathering

Subsistence hunting, fishing and gathering is another important land use. Subsistence uses are longstanding traditional uses for Indigenous and Tribal groups. In addition, non-native homesteaders also engage in subsistence activities in some locations.

To a lay person, subsistence means using public lands as a source of food, clothing, warmth, construction materials, and other basic needs for yourself or your family. However, for Indigenous communities, subsistence activities are deeply connected to history and culture, and engaging in subsistence practices is essential for their cultural survival. The continuation of subsistence practices enables different generations to share their knowledge and value systems with one another. In this respect, subsistence goes beyond meeting basic nutritional and physical needs. Protecting subsistence uses helps to preserve traditional ways of life and culture that are important to Indigenous communities and part of the history of the United States.

Subsistence activities are particularly common in Alaska, where rural communities harvest about 18,000 tons of wild foods each year. Federal laws like the Alaska National Interest Lands Conservation Act (ANILCA) recognize and protect subsistence use of fish and game for Alaska Native communities. The State of Alaska goes further in recognizing all Alaska residents as qualified subsistence users.

## Landscape Preservation and Conservation

Another type of land use is preserving the land in its natural state. Under this form of land use management, preserving the natural characteristics and systems of the land are the highest priority. This is different from managing land for recreation or scientific research, although there is significant overlap. On lands managed for recreation, land managers may tolerate some natural resource impacts in order to provide recreation opportunities. On lands managed for preservation, recreation is limited when doing so is necessary to protect

plants, wildlife, and natural processes. Land designations like Wilderness, discussed in Module 1, prioritize preservation of lands in their natural state.

Land preservation provides significant public benefits, sometimes referred to as ecosystem services. This includes filtration of air and water, healthy habitats for wildlife, preservation of diverse plant and animal communities, climate change mitigation, and protection of wildlife migration routes. However, in order to realize these benefits, extractive uses must be largely excluded and some forms of recreation must be limited. More information about these limitations can be found in Module 1.

One recent development in land preservation is the movement in some countries to grant certain landscapes and waterways “personhood,” or to acknowledge that these places are living beings. In New Zealand, India, and Columbia, rivers have been granted rights as living entities. In Ecuador and Bolivia, constitutional amendments have recognized the rights of “Mother Earth.” These steps have given a name as well as legal standing to ecosystems and large landscapes. To date, these actions have not been replicated in the United States. Many of the land management strategies, practices, and histories in North America have been anthropocentric (i.e., human-oriented), particularly during the settler-colonialist period that started in 1492. The movement to give landscapes and rivers legal standing is a shift in this thinking that would recognize that relatively unaltered landscapes have rights and value in their natural state.

## Tribal Co-Management and Land Back

In recent years, there have been calls from Native Americans and others to achieve a greater degree of land justice in the United States. Land justice is equitable access to land and the return of power and land to Native Americans.

The movement to return access, management and sometimes public land itself to Indigenous peoples is sometimes called the “Land Back” movement. However, this reference is an oversimplification. Restoring Indigenous peoples’ relationship to the land can take many different forms, some known today and some yet to be developed. These forms of restoration lie along a continuum from co-management of the lands to outright ownership of the lands by a tribal entity. We describe the different restoration strategies briefly below but emphasize that each one of these strategies has its own variants, and each specific application of these methods involves complexities that we do not attempt to summarize here.

1. **Co-Stewardship/Co-Management** — a contractual arrangement between a government entity and a tribal entity that gives the tribe authority over some of the management functions of a public land unit that would otherwise be retained by the government entity.
2. **Easement** — An easement is the right to use the property of another for a specific purpose. Easements can be used to give Tribes the authority to monitor and protect the ecological health of an area of privately held land. They can also be used to restore cultural and spiritual connections

to lands. One example is a “spirit easement” acknowledging that the property is open and welcoming to all spirits of a Tribe’s deceased people.

3. **Stewardship/Management** — Complete tribal management of a park or other public land unit. Many of the parks where this form of management exists are completely within a tribal nation.
4. **Land Transfer** — Transfer of legal ownership of lands from a government to a tribal entity.
5. **Land Purchase** — Purchase of legal ownership by a tribal entity. In some cases, purchased land is then transferred into Trust for the Tribe through the Bureau of Indian Affairs.

Employing these strategies to restore Indigenous peoples’ relationship to the land has significant public benefits. It achieves some degree of land justice and begins to correct historical wrongs done during the colonial settlement of the United States. It also expands the role that traditional knowledge plays in the management of public lands and helps educate non-Indigenous people on the relationships that Indigenous peoples have had to the land since time immemorial.

### Scientific Research

Public lands and waters are natural laboratories that provide limitless opportunities for scientific research. This scientific research benefits the public in countless ways. It helps us develop new medicines and technologies, increases our understanding of climate change and natural disasters, helps us forecast the weather, and expands our knowledge of the natural world. Scientific research sometimes has impacts on the landscape, such as when it requires the installation of infrastructure like data collection devices and built laboratories. However, scientists generally try to keep these impacts to a minimum to preserve the integrity of the ecosystem and the validity of the data collected.

### Public/Private Gathering Spaces

Public lands provide outdoor gathering spaces for public and private parties and events, particularly on the local and regional level. This includes family gatherings, community and religious group events, rallies and other First Amendment activities. These uses improve social, mental, and physical health, help build stronger communities and enable people to express their views to their neighbors and their government. In addition, the revenue received from these events often help the managing agency offset the expenses incurred in maintaining these public facilities. At the same time, large events can concentrate use in one area, which increases impacts and may require more built infrastructure and regular oversight from the managing agency.

### Greenway Connectivity

Another beneficial use for public lands is to provide greenway connectivity. In many cities, public land resources provide commuting pathways for cyclists and pedestrians, access to water sources for living organisms, and outdoor greenspace for local residents. Cities across the country are working to connect and expand existing greenways. For example, the Boston Metropolitan Planning Council is aiming to connect 1,400 miles of trails and greenways in the Boston area.

### Renewable Energy Development

Public lands are increasingly being used for renewable energy development. Certain locations on public lands are ideal for solar, wind and geothermal energy generation. Generating renewable energy on public lands helps cities to reduce their dependence on carbon-based energy sources, thereby reducing the release of greenhouse gasses and slowing the effects of climate change. Renewable energy projects also provide jobs for nearby communities. At the same time, the construction and operation of renewable energy facilities can have adverse effects on nearby plants and animals. Active management is required to reduce the impacts of solar energy arrays on sensitive desert ecosystems and to reduce the number of bird strikes from wind turbines.

### Natural Resource Extraction

Federal public lands and waters also support significant amounts of natural resource extraction. This includes drilling for oil and natural gas, mining for various types of minerals, harvesting timber in the National Forests, and grazing livestock on Forest Service and Bureau of Land Management lands. These activities provide benefits to the public by supplying us with raw materials like oil, natural gas, lumber and food products that we use in our everyday lives. They also provide employment opportunities to local communities and royalty revenue to the land management agencies. At the same time, natural resource extraction activities have significant negative impacts on other user groups and can cause irreversible damage to landscapes on both a large and small scale.

## Management Issues on Public Lands and Waters

Managing public lands and waters involves many complicated issues and questions. These issues impact the users of public lands and the agencies and people who are responsible for managing these lands. The most pressing issues change over time, which makes it difficult to compile a comprehensive list. However, to provide an overview, we describe some of the leading issues facing users and land managers at the time of the publication of this curriculum.

### ISSUES FOR USERS OF PUBLIC LANDS AND WATERS

#### Access to public lands for recreation and education

For some people, public lands are readily available and accessible in their everyday lives. However, public lands are not easily accessible for everyone. Some people face barriers to accessing public lands. These barriers take various forms. Examples include:

- **Transportation** — Many people living in urban areas and people without financial means lack the transportation capabilities necessary to travel to public lands. This inability to get there is one of the biggest barriers to sharing in the benefits of public lands.
- **Entrance fees** — Some public lands charge entrance fees. When they are modest, these fees pose a minimal



barrier. However, in some cases these fees can be significant, and can deter people from visiting public lands, particularly people of limited means.

- **Cost of equipment** — Some recreational activities like rock climbing and paddling require participants to have specialized equipment. The cost of this equipment can be a barrier to visiting public lands.
- **Accessibility of trails and facilities** — The physical accessibility of trails and other recreation features can be a barrier to people with disabilities.
- **Lack of knowledge of recreation** — Some recreation activities require specialized skills. This can serve as a barrier to participation in these activities.
- **Lack of information about public lands** — Some people have difficulty accessing accurate information about where public lands are located, how to access them, and what facilities and services they provide. This is particularly true for people with disabilities who need more information to plan a trip.

#### **Access to public lands for spiritual, cultural and subsistence activities**

Access to public lands and waters is also a significant challenge for Indigenous peoples seeking to use areas on public lands for spiritual, cultural and subsistence activities. As explained above, Indigenous communities have been using lands and waters that are now public since time immemorial for ceremonies, rituals and hunting and fishing activities. Unfortunately, these long-standing historical connections have not been fully recognized and respected. During westward colonial expansion, some sovereign tribal nations entered into treaties with the United States that were supposed to guarantee hunting and fishing rights on lands that are now part of the public lands system. However, in many cases, those treaties have not been honored. There have also been instances in which sites that are sacred to Indigenous Peoples have been damaged by natural resource extraction or desecrated intentionally and

unintentionally by public land users. As a result, important tribal connections to public lands have been adversely affected.

#### **Negative experiences on public lands**

For many people, visiting public lands is a positive experience. However, some people report experiences of exclusion and othering when they visit public lands. This is particularly true for People of Color. People may feel unwelcome because the staff of the public lands management agencies are still predominantly white and therefore do not reflect the identities of the general population. However, some othering experiences can be traced to narrow views on proper public lands etiquette and the “right” way to recreate that have developed in the recreation and outdoor communities.

Some visitors have negative experiences on public lands because of the lack of an accurate and representative history of these places. Land managers often do not do enough to acknowledge the historical presence and significant contributions of Indigenous people and People of Color. Module 3 of this curriculum highlights the voices and actions of noteworthy leaders of color in the public lands movement.

Acts of exclusion on public lands can sometimes take on more extreme forms. Some Black, Indigenous, People of Color and LGBTQ+ visitors continue to experience violence and threats of violence when they visit parks and other public lands. These threats usually come from white people who believe that People of Color and LGBTQ+ people do not belong in “their” parks. Parks and public lands also contain thousands of examples of place names that honor and glorify historical figures associated with racism, oppression and genocide. These place names contribute to feelings of exclusion on public lands for some visitors.

#### **Inaccurate perceptions about appreciation for the outdoors**

Research shows that there is a perception and stereotype that People of Color do not appreciate the outdoors and public lands. The reality is that people have different ways of

appreciating and connecting with nature and the outdoors. This may include ways that are not reflected in the dominant narrative about public lands appreciation. This was true historically and it remains true today.

Module 3 of this curriculum tells the story of some of the connections that People of Color have forged with nature and the outdoors. These stories demonstrate that People of Color have always connected with the outdoors and with public spaces. Telling these stories makes public lands history more multidimensional and relevant to users of today. More recently, the success of organizations like Outdoor Afro, Latino Outdoors and the organizations in the Diversify Outdoors coalition has clearly demonstrated that interest in the outdoors among People of Color, while already strong, constantly grows when these communities have proper access to green spaces.

## **ISSUES FOR LAND MANAGERS**

### **Lack of funding and resources for public lands management**

Federal land management agencies continue to struggle with the limited resources they have been given to maintain and protect public lands. From 2010 through 2021, the agencies were significantly underfunded. As a result, they were unable to adequately operate programs to maintain and connect people to public lands, and they also lost a significant percentage of the staff they need to keep the agencies operating effectively. The combined effect is a growing backlog in repair and restoration work and an overburdened workforce that has trouble meeting unreasonable performance expectations. This lack of agency resources exacerbates nearly every other issue on public lands.

### **Energy development and greenhouse gas emissions from public lands**

The federal government leases public land for oil and gas extraction, with roughly 26 million acres under lease nationwide. Oil and gas companies pay fees and royalties to extract oil and gas from public lands in a few different ways. However, many of these fees are very low and have not kept pace with the rate of inflation. This creates opportunities for abuse of the system. For example, the federal royalty rate energy companies pay on the dollar value of oil or gas produced is lower than the rate set by the states and by private landowners, which incentivizes fossil fuel development on public lands over wildlife habitat, conservation, and recreation. Likewise, the bonds energy companies are required to post to cover the cost of cleaning up wells after they stop producing rarely cover the full cost of cleanup at the end of their extractive life. This forces communities and taxpayers to pick up the difference.

One result of all of this energy development on public lands is that federal public lands continue to be a major greenhouse gas emitter. According to a report from the U.S. Geological Survey, greenhouse gas emissions from federal energy production on federal public lands are a significant percentage of total U.S. emissions. Over the past decade, approximately 40% of total U.S. coal production, 26% of U.S. oil and 23%

of U.S. natural gas were produced from U.S. federal public lands and waters. If federal public lands were a country, they would rank 5th in the world in total emissions behind China, India, the United States, and Russia. If these high emissions continue, the United States will have difficulty achieving its greenhouse gas reduction goals.

## **Climate Change on Public Lands**

As the average temperature of the planet continues to rise, all species that rely on public lands for their survival are affected. Public lands protections safeguard some of the most fragile ecosystems from the frequent severe weather events, increased flooding and erosion, extreme heat, droughts, and wildfires that are a result of climate change. Human communities are also affected by these climate change-induced stresses to our public lands. As ecosystems change, people that rely on the wildlife and plant diversity for subsistence and medicine are seeing less availability of important resources. Communities that rely on public lands to draw tourists and recreationists are seeing less support for local economies due to changing landscapes and weather patterns.

Although public lands are negatively affected by climate change, they are also a vital part of the solution. When managed appropriately, public lands offer an opportunity to sustainably develop renewable energy, mitigate the effects of a warming globe and increased greenhouse gasses, and protect critical habitat for preserving biodiversity. For more information about public lands and climate change, see Module 4.

## **Wildfire Management**

Land managers are responsible for managing wildfires on public lands. Fires are a natural part of a forest's life cycle. However, for the past several years, wildfires across the country and the world have been growing more severe. Today, fires are burning hotter and longer, extending the fire season and making fires much more dangerous. This is partly because climate change is increasing forest temperature and making forests drier, which makes it easier for fires to start and spread. It is also because the historic practice of suppressing all fires immediately instead of letting them burn where and when it is safe to do so has led to a buildup of dead or dying trees and plants on the forest floor that can catch fire very easily.

More recently, land managers have been trying a more balanced approach. This strategy includes removing small trees so larger trees can thrive and setting closely-monitored "prescribed fires" to burn away dead plant material so that it does not accumulate and serve as fuel for larger, uncontrolled fires.

Wildfire management also consumes a significant portion of the land management agencies' budgets. The agencies have seen a significant increase in the overall cost of fire management over the last two decades. As the lead fire management agency, most of these costs fall upon the U.S. Forest Service. In some recent years, more than half of the Forest Service budget was spent on wildfire prevention and suppression. By necessity, some of this money was taken from other Forest Service programs, making it difficult for the agency to fulfill its responsibilities in those areas. Recent

reforms in fire funding have reduced this “borrowing” practice. However, fire management costs continue to be a challenge for the agencies.

### **Balancing the interests of multiple user groups**

As explained in the introduction, land managers make management decisions based on a range of important considerations. First and foremost, they must comply with legal requirements imposed upon them by Congress. Nearly all of the land designations described in Module 1 carry with them legal obligations that the agencies are supposed to meet when they make management decisions. This can be a challenging process.

Perhaps the most important legal requirement imposed upon the land management agencies is that they are generally required to invite the public to participate in the land management decision making process. To comply with this requirement, the agencies usually provide the public with an opportunity to comment before they make major management decisions. Inevitably, the interests of different segments of the public conflict with one another, either entirely or in part. Land managers must balance these interests in deciding what activities will be allowed or prioritized in a particular area of public lands.

### **Lack of racial and ethnic diversity in public land use**

Research shows that the racial and ethnic demographics of people visiting certain public lands does not reflect the demographics of the United States. A disproportionate number of visitors to public lands are white, with Latinx, Black, Asian, and Indigenous people visiting at a rate below their percentage of the population. As discussed in the previous section, this could be due to lack of access to and negative experiences on public land. The land management agencies regard this unbalanced representation as a serious problem and are working to attract diverse groups to public lands.

### **Overcrowding**

The Covid-19 pandemic triggered a significant increase in the number of recreational visits to public lands as people looked to the outdoors as a way to engage in relatively safe activities with family and friends. This increase in public land usage intensified already robust visitation rates before the pandemic. The combined result has been significant overcrowding on public lands, particularly in front country areas that are popular with new visitors. Overcrowding is a major challenge for land managers. It generates high automobile traffic, overburdened parking lots and increases trash, human waste, and physical impacts on the landscape. It also increases disturbances of wildlife in its native habitat and the number of potentially dangerous human-wildlife interactions. Land managers have been forced to respond to overcrowding issues by implementing visitation limitations in some locations. These limitations take various forms, including temporary park closures and limited-entry permit systems for high use areas.

### **Management of cultural resources**

In the previous section, we described the issues Indigenous people face in accessing public lands for spiritual, cultural

and subsistence activities. Land managers face a related challenge in managing public lands to protect opportunities for these important uses. Historically, the agencies managed public access primarily for recreation and adventure activities. However, the agencies have recently begun doing more to recognize the cultural and spiritual significance of the lands and waters within their jurisdiction.

One agency responsibility that remains a big challenge is protecting sacred sites from theft and vandalism. As discussed above, agency staff resources have shrunk significantly over the past decade or so. Consequently, it is difficult to maintain an effective law enforcement presence across large areas of public lands. This has resulted in many instances of vandalism and theft of sacred objects from sites that are significant to Indigenous communities.

### **Rollback of land protections**

When Presidential administrations change in Washington, D.C., public lands protections established by previous administrations are sometimes rolled back by the new administration. These reversals make it difficult for land managers to know how to manage public lands over the long term. This occurred in 2017, when former President Trump reduced the size of two National Monuments, thereby undoing land protections that applied to these areas and opening them up for mineral and energy development. President Trump’s actions were reversed in 2021 when President Biden restored protections to these areas.

### **Proposals to transfer federal public lands to state control**

In recent years, numerous proposals have been made to transfer control of some federal lands to the states in which those lands are located. These proposals are the subject of passionate debate. Advocates for these transfers argue that the states should have the right to control lands within their boundaries. Opponents of these transfers point to conditions that were imposed when these states were admitted into the union, and to past history that indicates that when states are given control over federal lands they often sell them to private interests, primarily for mineral, oil, and gas development. These sales reduce or eliminate public access to these lands and generally result in the destruction of natural resources.

In the accompanying lesson plan, we provide a few case studies of contemporary land management issues. In each case study we describe the interests of the various user groups that have taken an interest in the landscape and some of the legal issues involved. These case studies are not meant to be a comprehensive set of examples. Similar issues exist in other areas of the public lands system. These case studies are representative of the challenges land managers face in making management decisions.

Land managers must make management decisions based on the laws and policies that apply to the lands and waters they manage, and also on the needs and interests of the multiple user groups that make use of these lands and waters. Balancing all these considerations can be a difficult and challenging process for land managers.

## Module

# 5

## Lesson

# 1

# Analyzing Public Lands Conflicts

## Lesson at a Glance

### Participant Read/Digest (10 min):

Participants will learn about a contemporary land management case study.

### Worksheet Completion (20-30 minutes):

Participants will complete a worksheet and develop a land management proposal.

### Real-Time Management Solutions and Reflection (15 minutes):

Participants will learn about solutions and current actions related to the case study and will reflect on the complicated nature of public lands management.

## Learner Outcomes

### Participations will:

- Understand that managing public lands and waters involves many complicated issues and questions.
- Identify conflicts and compromises that can occur when public lands are managed for multiple user group interests.

## Getting Ready

**Time:** 45+ minutes

**Materials:** Information about a land management case study, copies of worksheet, butcher paper, markers

**Location:** Indoor or outdoor; for a large group reflection, having a space for all participants to sit or stand in a circle would be best.

**Number of students:** 5-30

**Objective:** To provide a tool for participants to think critically about public lands conflicts and solutions.

## Participant Read/Digest (10 min)

Divide participants into groups of 2-4 people. Provide groups with a land management case study and allow time for the group to read the information. Instruct students to only read the front of their case study sheet. If participants have access to the internet, consider allowing groups to do some searching for more information on their case study (articles, maps etc).

## Worksheet Completion (20-30 minutes)

Allow time for participants to complete the case study worksheet. Participants should be prepared to present a brief overview of their case study and proposed management strategy and may utilize butcher paper and markers for their presentation if desired.

After each group presents their land management proposals, encourage participants to challenge each other's proposals and allow presenters to defend their decisions. The following questions may help groups constructively processes their proposals:

1. Which interest groups received the most of what they wanted? Which received the least? Why do you think that this is an equitable way of settling this disagreement?
2. How does history play into the management decision that you are proposing/support? How do you think land managers should consider the historical context of the lands they manage in making decisions?
3. When should your management decision/proposal be revisited? What is a condition for changing the management decision in the future?
4. Which interest groups might be invisible? (For an example of an "invisible interest group" in history, you can use the example of Native peoples during the creation of the National Parks and National Forests; while not recognized at the time, they have a clear and direct interest in management today.)
5. What challenges will exist after your management plan goes into effect? Do you think that your solution will be durable and conclusive?

## Real-Time Land Management Solutions and Reflection (15 minutes)

Once participants have completed their presentations, allow each group 10 minutes to read the back of their case study sheet for information on how the issue is being addressed by land managers. In small groups, ask them to discuss the following questions:

1. How similar is your proposed management plan to the actual events that you read about?
2. Based on the user groups that you identified, was any group given preference over another in the real-time management plan? If so, why do you think that is?
3. Do you agree with the management plan/solution? If your case study doesn't have a management plan identified, in what ways can you be involved in determining the outcome? Why should you care about the outcome?

As a large group, ask participants to summarize the real-time management plans/solutions that accompany their case study and their discussion.

As a group reflection exercise, ask participants to summarize their impressions after completing this lesson in one word—you should hear words like 'confusing' or 'complicated'. Note that managing public lands for maximum benefits of the land and people is a tough job, and we can help guide decision-makers by engaging in the process along the way as discussed in Module 6.

### Adapt the Lesson

Apply this lesson to a small scale public lands parcel, a city park or greenway that students are familiar with.

Consider using this lesson as a longer-term project framework for students to engage in research and stakeholder engagement.



### Devils Tower National Monument

Devils Tower, known to some tribal communities as Bear's Lodge or Mato Tipila, is a tower of igneous rock rising 1,267 feet over the Belle Fourche River on the traditional lands of the Lakota, Tsistsistas/Cheyenne, and Kiowa tribes in what is today northeastern Wyoming. Devils Tower has the distinction of being the first National Monument designated under the Antiquities Act of 1906. Today, it is a popular tourist destination. As rock climbing grew in popularity in the late 1980s and early 1990s, thousands of climbers journeyed to Devils Tower with the intent to climb the formation. The rock is a unique geologic feature offering routes ranging from 5.6 (fairly easy) to 5.13 (very hard). Intense interest in climbing Devils Tower continues to this day.

However, long before Devils Tower became popular with rock climbers, various tribal groups visited the area annually to pray and conduct ceremonies connected to the summer solstice. Each tribal group has their own stories of the place, but pipe ceremonies, sun dances, and vision quests are all held near (and in relation to) the tower in order to renew life and spirituality. The tribes consider rock climbing during these ceremonies disturbing and sacrilegious. Devils Tower is also a nesting area for peregrine falcons, a raptor species once classified as Endangered but removed from Endangered status in 1999 due to stable population sizes. Climbing during nesting season can disturb the falcons' reproductive cycle.

In an effort to balance these disparate interests, the National Park Service has imposed two limitations on rock climbing on Devils Tower. The first limitation is a complete, mandatory ban on climbing every April to protect peregrine falcons during their nesting season. The second limitation, imposed in 1995, is a voluntary ban that discourages but does not completely prohibit climbing during the month of June, which is one of the most important months for tribal ceremonies. Since these climbing limitations have been implemented, several lawsuits have been filed both in support of and against Indigenous religious rights and climbers' access. The overwhelming majority of climbing organizations today support closure during the voluntary limitation period and prominent voices in the climbing community have written articles about how climbing should not occur during that time. Despite this fact, each June a few hundred climbers travel to Devils Tower to climb during the voluntary ban.



### Arctic National Wildlife Refuge

The Arctic National Wildlife Refuge is a 19.3 million-acre area of land located in the northeastern corner of Alaska. It is the ancestral and modern-day homeland of the Indigenous Gwich'in and Iñupiat peoples and is managed by the U.S. Fish and Wildlife Service (USFWS). The Gwich'in and Iñupiat depend on the Arctic Refuge and its resources to sustain their communities, cultures and ways of life. The Porcupine Caribou Herd, in particular, is a primary source of food for the Gwich'in, who identify themselves as caribou people and base many of their cultural practices on their relationship with the herd. The caribou migrate each summer to the coastal plain of the refuge to birth and nurse their calves, so there is much fear that oil drilling there would negatively impact the caribou. The coastal plain—a 1.5 million-acre strip of land between the Brooks Range and the Arctic Ocean—also provides important habitat for moose, wolves, eagles, lynx, wolverine, three species of bears, and many other animals. The refuge includes a large area of designated wilderness, but the coastal plain is outside the wilderness boundary.

Since the 1970s, there has been debate about whether to allow energy companies to drill for oil and gas in the Arctic Refuge. Under the law that created the refuge, drilling for oil on the coastal plain has been illegal for decades, and only Congress could vote to change that rule. Despite the fact that extractive industries provide thousands of jobs in northern Alaska, nearly all Gwich'in oppose drilling in the Arctic Refuge— a view shared by many Iñupiat and other Alaska Native tribes.

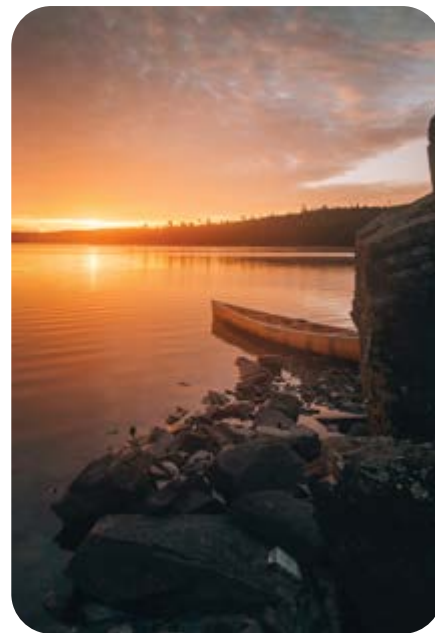
In the 1980s, USFWS recommended that the coastal plain be opened to oil and gas development in the interests of national security and economic development. However, Congress did not grant permission for drilling. Later, in the 1990s and 2000s, Congress several times debated whether to preserve the coastal plain or allow oil and gas extraction. Then, in 2017, Congress passed and President Trump signed legislation that opened the area to drilling.

As a result of 2017 legislation, the United States government auctioned off nine oil and gas leases in 2020. Knowing that drilling on the coastal plain would be risky, expensive and highly controversial, major oil companies decided to not enter a single bid. Seven of the leases were purchased by an economic development corporation owned by the state of Alaska; another was purchased by a real-estate investment firm; and one lease was purchased by an Australian oil and gas company. But in June 2022, that company canceled the lease and requested a refund. This lack of interest on the part of energy companies may be attributable to a public outcry in opposition to drilling in the refuge, especially that of the Gwich'in and Iñupiat peoples. In addition, America's six largest banks announced they will refuse to finance oil and gas extraction in the refuge and a number of insurance companies around the world have policies that prohibit financing and underwriting extraction work in the Arctic Refuge.

Shortly after President Biden took office in 2021, Interior Secretary Deb Haaland suspended all of the leases sold in the 2020 lease sale, insisting that additional review was needed on how drilling would impact the landscape. As a result of that suspension, there has been no further movement toward drilling in the Arctic Refuge as of Spring 2022. Unless Congress acts to protect the coastal plain—the 2017 Tax Cuts and Jobs Act, which contained a provision to open the refuge to drilling—will require another lease sale to be held before the end of 2024.

## The Boundary Waters Canoe Area Wilderness

The Boundary Waters Canoe Area Wilderness (BWCAW) is approximately one million acres of federally designated Wilderness located in the traditional homelands of the Anishinaabe (Ojibwe) people. Today, these lands and waters are part of the Superior National Forest in Northern Minnesota and are the most visited wilderness in the National Wilderness Preservation System. With over 2000 miles of pristine rivers and streams and over 1,000 lakes, the BWCAW is highly-valued for recreation, scientific study, and habitat for several endangered species. The recreation industry that has grown up around the Boundary Waters provides thousands of jobs in the area and is estimated to produce nearly \$100 million in revenue in the region.



In addition to the ecological and recreation value of the region, the lands of Northern Minnesota are rich with taconite, the raw material used to produce iron, and sulfide ore, the raw material used to produce copper. The U.S. Forest Service has allowed mining in areas near the BWCAW since the 1940s. However, the overwhelming majority of this mining has been for taconite and iron production rather than sulfide and copper production. Sulfide ore mining brings new risks including acid mine drainage and other heavy metal pollution to the abundant and interconnected waters of the area. These risks are unlike those from taconite mining. Taconite mining has not had a major impact on the Wilderness to date.

Mining also provides economic benefits to northern Minnesota. In the Iron Range to the west of the Boundary Waters, the mining industry has historically provided thousands of jobs and is still a major employer in the region today. Proponents of mines near the Boundary Waters claim that mining could produce jobs for this region as well, although some economic studies question whether a mining-based economy would outperform the existing recreation-based economy.

In 2012, a Chilean mining company purchased two old mining leases in the Superior National Forest. These parcels are located five miles from the boundary of the BWCAW and are upstream of a large portion of the Boundary Waters watershed. The company would like to mine copper-sulfide ore using a process that is likely to leach toxic minerals and chemicals into the water, posing a significant threat to the pristine waters in the Wilderness area.

The mining proposal sparked the formation of a coalition known as Save the Boundary Waters, consisting of a number of environmentalists, hunters and anglers, and recreation-focused businesses and user groups. Some Indigenous groups and Tribes have also supported the campaign. Save the Boundary Waters is proposing protections for the entire BWCAW watershed. The debate over the mine has pitted some traditional allies against one another. Recreation and conservation interests are against the mine, whereas some organized labor unions are supporting the mine in the hopes that it will provide jobs in the area.

During the Obama administration in 2016-2017, the U.S. Forest Service determined that the mine would cause irreversible damage to the region. The agency canceled the mining leases and proposed a 20-year mining ban around the BWCAW. In 2018 and 2019, the Trump Administration reversed this decision and reinstated the leases to allow the mine. However, the Bureau of Land Management was legally required to carry out official environmental reviews and permitting processes before mining operations could begin.

In early 2022, the Biden Administration again canceled the two active leases, saying the Trump administration's renewal of the leases was unlawful because it did not comply with applicable laws and regulations. The Biden Administration also announced that it plans to pursue the 20-year mining ban first issued during the Obama administration. The mining company has stated that it will challenge the Biden Administration's actions in court.

# CASE STUDY WORKSHEET

What land/water is being discussed?

What unique geographic features are involved (rivers, mountains, etc)?

What federal agency manages the land?

User/Interest Group Name	Desired outcome for Land/Water use? Is this use exclusive?	Benefits to this use?	Drawbacks to this use?

\* If more user groups/interest groups are identified, complete this same process on extra paper.



**Answer the following questions with the user groups and specific area above in mind:**

<p><b>What is the managing agency's mission and designation of the land?</b></p>	
<p><b>Based on mission and designation, which groups should be given priority consideration and why?</b></p>	
<p><b>Thinking globally and long term, what are appropriate land, water, and air protections for this land?</b></p>	
<p><b>Questions to Research</b></p>	

*How can this land be managed to reduce user conflict and ensure that all user needs are met?*

**On another sheet of paper, describe what a proposal for the best use of this land would be. Include which groups would benefit, what advantages/drawbacks would be for the management decision, and your reasons why you think this is the best management decision for the area.**

