Federal Lands and Related Resources: Overview and Selected Issues for the 117th Congress

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Summary

The Property Clause in the U.S. Constitution (Article IV, §3, clause 2) grants Congress the authority to acquire, dispose of, and manage federal property. The 117th Congress faces multiple policy issues related to federal lands and natural resources. These issues include how much and which land the government should own and how federal lands and resources should be used and managed. These issues affect local communities, industries, ecosystems, and the nation.

There are approximately 640 million surface acres of federally owned land in the United States. Four agencies administer 606.5 million surface acres (~95%) of federal lands: the Forest Service (FS) in the Department of Agriculture and the Bureau of Land Management (BLM), U.S. Fish and Wildlife Service, and National Park Service, all in the Department of the Interior (DOI). The federal estate also extends to energy and mineral resources located below ground and offshore. BLM manages the 710 million acres of the onshore subsurface mineral estate. The Bureau of Ocean Energy Management, also in DOI, manages access to almost 2.5 billion offshore acres in federal waters on the U.S. outer continental shelf for energy leasing and other purposes. DOI, primarily through the Bureau of Indian Affairs, also is responsible for the administration and management of 55 million surface acres and 57 million acres of subsurface mineral estate held in trust by the United States for Indian tribes and individual tribal members.

This report introduces some of the broad themes and issues Congress has considered when addressing federal and tribal land policy and resource management. These include questions about the extent and location of the federal estate. For example, Congress typically considers measures to authorize and fund the acquisition of additional lands as well as measures to convey some land out of federal ownership or management. Other issues for Congress include whether certain lands or resources should have additional protections, for example, through designation as wilderness or national monuments, or protection of endangered species and their habitat.

Other policy questions involve how federal land should be used and managed. Congress has specified in statute the management mission and authorized uses across the different types of federal lands. For example, the dominant-use mission of the National Wildlife Refuge System is the conservation of fish, wildlife, and plant resources and associated habitats for the benefit of current and future Americans. The dual-use mission of the National Park System is to conserve unique resources and provide for their use and enjoyment by the public. BLM and FS lands, however, have a statutory mission to balance multiple uses: recreation, grazing, timber, habitat and watershed protection, and energy production, among others. Conflicts arise as users and land managers attempt to balance these uses. Congress often addresses bills to clarify, prioritize, and alter land uses, such as timber harvesting, livestock grazing, and recreation (motorized and nonmotorized). With respect to energy uses, in addition to questions about balancing energy production against other uses, some questions include how to balance traditional and alternative energy production on federal lands.

Additional issues of debate include whether or how to charge for access and use of federal resources and lands, how to use any funds collected, and whether or how to compensate local governments for the presence of untaxed federal lands within their borders. Congress also faces questions about wildfire management on both federal and nonfederal lands, including questions of risk management and funding suppression efforts. Another recent concern has been the impact of the Coronavirus Disease 2019 (COVID-19) pandemic on federal and tribal land and resource management.

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Introduction

Federal land management decisions influence the U.S. economy, environment, and social welfare. These decisions determine how the nation's federal lands will be acquired or disposed of, developed, managed, and protected. Their impact may be local, regional, or national. This report discusses selected federal land policy issues that the 117th Congress may consider through oversight, authorizations, or appropriations. The report also identifies CRS products that provide more detailed information.

The federal government manages roughly 640 million acres of surface land, approximately 28% of the 2.27 billion acres of land in the United States.[1] Four agencies (referred to in this report as the federal land management agencies, or FLMAs) administer a total of 606.5 million acres (~95%) of these federal lands:[2] the Forest Service (FS) in the Department of Agriculture (USDA), and the Bureau of Land Management (BLM), U.S. Fish and Wildlife Service (FWS), and National Park Service (NPS), all in the Department of the Interior (DOI). Most of these lands are in the West and Alaska, where the percentage of federal ownership is significantly higher than elsewhere in the nation (see **Figure 1**). In addition, the Department of Defense administers approximately 9 million acres in military bases, training ranges, and more; and numerous other agencies administer the remaining federal acreage.[3]

The federal estate also extends to energy and mineral resources located below ground and offshore. BLM manages the 710 million acres of the federal onshore subsurface mineral estate. The Bureau of Ocean and Energy Management (BOEM), also in DOI, manages access to almost 2.5 billion offshore acres located beyond state coastal waters, referred to as the U.S. outer continental shelf (OCS).

DOI, primarily through the Bureau of Indian Affairs (BIA), is also responsible for the administration and management of 55 million surface acres and 57 million acres of subsurface mineral estate held in trust by the United States for Indian tribes and individual tribal members. The federal trust responsibility includes a duty on the part of the United States to protect treaty rights, lands, assets, and resources on behalf of tribes and tribal members. This unique relationship is a key difference between the *federal management of tribal lands* and the *management of federal lands*.[4] Therefore, this report includes a separate section on tribal lands and resources.

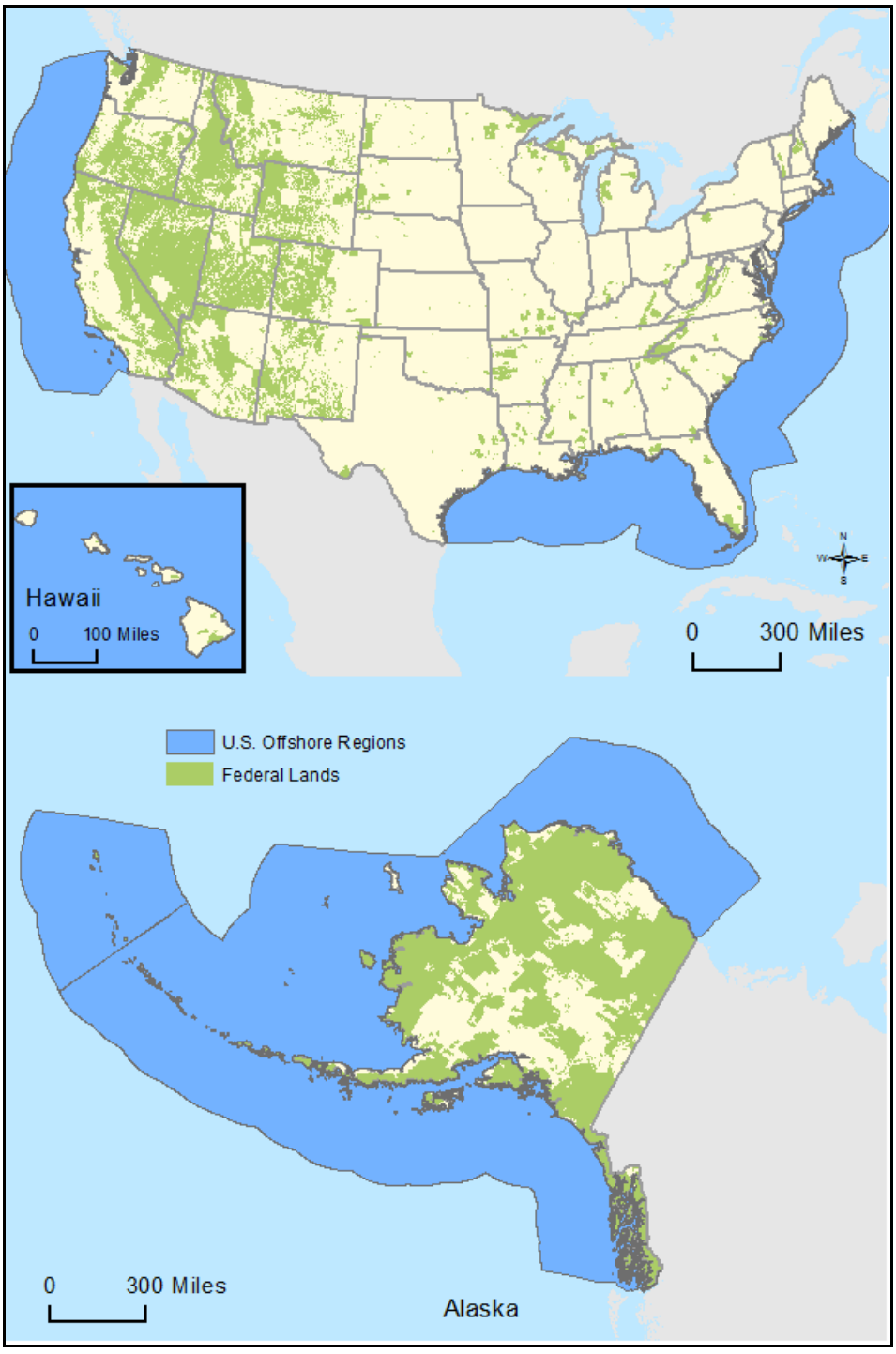
[1] Total federal land acreage in the United States is not definitively known. As of September 30, 2018, the four major federal land management agencies (FLMAs) managed a total of 606.5 million acres in the 50 states, District of Columbia, and U.S. territories. Estimates in this paragraph generally exclude lands in marine protected areas and ownership of interests in lands (e.g., subsurface minerals, easements). For additional information on acres managed by the four FLMAs and the Department of Defense, by state, see CRS Report R42346, *Federal Land Ownership: Overview and Data*, by Carol Hardy Vincent and Laura A. Hanson.

[2] In this report, the term *federal land* is used to refer to any land owned (fee simple title) and managed by the federal government, regardless of its mode of acquisition or managing agency. Where appropriate, the term may also include submerged federal lands. It does not include tribal lands, and unless otherwise stated, it excludes lands administered by a federal agency under easements, leases, contracts, or other arrangements.

[3] This Department of Defense figure is current as of September 30, 2017. It excludes land managed by the Army Corps of Engineers. This report focuses on federal land managed by the four major FLMAs, plus the submerged lands managed by the Bureau of Ocean and Energy Management, and where appropriate, the management of tribal lands.

[4] For the purposes of this report, *tribal lands* are considered lands or interests in land owned by an Indian tribe or individual tribal member that are held in trust by the federal government or restricted from alienation (sale or transfer). Statutory and regulatory text may use another term instead of tribal land, such as the term *Indian land*. Often, statutory or regulatory text will specifically define what constitutes tribal land or Indian land for its purposes; thus, it is important to consult the particular statute or regulation for exact definitions in specific statutory contexts.

Figure 1. U.S. Federal Onshore and Offshore Lands



Source: CRS, using data from the National Atlas, Marine Regions, and Esri.
Notes: This map shows a generalized image of the U.S. offshore planning regions administered by the Department of the Interior and the surface acres of federal land administered by the federal land management agencies in the 50 states and the District of Columbia (territories are not shown). Tribal lands are not included.

Federal land policy and management issues generally fall into several broad thematic questions: Should federal land be managed to produce national or local benefits? How should current uses

be balanced with future resources and opportunities? Should current uses, management, and protection programs be replaced with alternatives? Who decides how federal land resources should be managed, and how are the decisions made?

Some stakeholders seek to maintain or enlarge the federal estate, while others seek to divest the federal estate to state or private ownership. Some issues, such as forest management and fire protection, involve both federal and nonfederal (state, local, or privately owned) land. In many cases, policy positions on federal land issues do not divide along clear political lines. Instead, they may be split along the lines of rural-urban, eastern-western, and coastal-interior interests.

Several committees in the House and Senate have jurisdiction over federal land issues, and some federal lands issues cross multiple committee jurisdictions. Among the primary authorizing committees are the Committee on Agriculture and the Committee on Natural Resources in the House, and the Committee on Agriculture, Nutrition and Forestry, the Committee on Energy and Natural Resources, and the Committee on Environment and Public Works in the Senate. The Committee on Indian Affairs in the Senate and the Committee on Natural Resources in the House—through its Subcommittee for Indigenous Peoples of the United States—have jurisdiction over most tribal land and resource issues. In addition, federal and tribal land issues often are addressed during consideration of annual appropriations for the FLMAs' and the BIA's and BOEM's programs and activities. These agencies and programs typically receive appropriations through annual Interior, Environment, and Related Agencies appropriations laws.

This report introduces selected federal land issues, many of which are complex and interrelated.[5] The discussions are broad and aim to introduce the range of issues regarding federal land management, while providing references to more detailed and specific CRS products. The issues are grouped into these broad categories:

- Federal Estate Ownership,
- Funding Issues Related to Federal Lands,
- Climate Policy and Federal Land Management,
- Energy and Minerals Resources,
- Forest Management,
- Other Land Designations,
- Range Management,
- Recreation,
- Species Management,
- Tribal Lands and Resources Management, and
- Wildfire Management.

In addition, this report has a section on issues related to the Coronavirus Disease 2019 (COVID-19) pandemic. This report generally contains the most recent available data and estimates.

[5] This report does not address the management of surface or groundwater resources on federal lands. For more information on those issues, congressional clients may access CRS's Water Resources Management reports at http://www.crs.gov/iap/energy-and-natural-resources.

Federal Estate Ownership[6]

Federal land ownership began when the original 13 states ceded title to some of their land to the newly formed central government.[7] The early federal policy was to dispose of federal land to generate revenue and encourage western settlement and development. However, Congress began to withdraw, reserve, and protect federal land through the creation of national parks and forest reserves starting in the late 1800s. This "reservation era" laid the foundation for the current federal agencies, whose primary purpose is to manage natural resources on federal lands. The four FLMAs and BOEM were created at different times, with different missions and purposes, as discussed below.

The ownership and use of federal lands has generated controversy since the late 1800s. One key area of debate is the extent of the federal estate, or, in other words, how much land the federal government should own. This debate includes questions about whether some federal lands should be disposed to state or private ownership, or whether additional land should be acquired for recreation, conservation, open space, or other purposes. For lands retained in federal ownership, discussion has focused on whether to curtail or expand certain land designations (e.g., national monuments proclaimed by the President or wilderness areas designated by Congress) and whether current management procedures should be changed (e.g., to allow a greater role for state and local governments or to expand economic considerations in decisionmaking). A separate issue is how to ensure the security of international borders while protecting the federal lands and resources along the border, which are managed by multiple agencies with their own missions.[8]

At times, some states have initiated efforts to assume title to the federal lands within their borders, echoing efforts of the "Sagebrush Rebellion" during the 1980s. These efforts generally were in response to concerns about the amount of federal land within the state, as well as concerns about how the land is managed, fiscally and otherwise. Debates about federal land ownership—including efforts to divest federal lands—often hinge on constitutional principles such as the Property Clause and the Supremacy Clause. The Property Clause grants Congress authority over the lands, territories, or other property of the United States: "the Congress shall have Power to dispose of and make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States."[9] The Supremacy Clause establishes federal preemption over state law, meaning that where a state law conflicts with federal law, the federal law will prevail.[10] Through these constitutional principles, the U.S. Supreme Court has described Congress's power over federal lands as "without limitations."[11] For instance, Congress could

[6] This report does not address the history between tribes and the United States—dating back centuries—and the historical framework that plays a role in current land issues for tribes.

[7] The method by which the federal government obtained lands contributed to a distinction in law between types of lands. Public domain lands include lands ceded by the original states or obtained from a foreign sovereign (via purchase, treaty, or other means). Acquired lands include those obtained from a state or individual by exchange, purchase, condemnation, or gift. Most federal lands are public domain lands. Many laws were enacted that related only to public domain lands. Even though the distinction has lost most of its underlying significance today, different laws may still apply depending on the original nature of the lands involved.

[8] This report does not address border security issues related to federal land management. For more information on these issues, congressional clients may access CRS's Border Security reports at http://www.crs.gov/iap/homeland-security-and-immigration.

[9] U.S. Const. Article IV, Section 3, cl. 2.

[10] U.S. Const. Article VI, cl. 2.

[11] See United States v. San Francisco, 310 U.S. 16, 29 (1940) and Kleppe v. New Mexico, 426 U.S. 529, 542-43.

choose to transfer to states or other entities the ownership of areas of federal land, among other options.

CRS Products

CRS Report R42346, *Federal Land Ownership: Overview and Data*, by Carol Hardy Vincent and Laura A. Hanson

CRS Report R44267, *State Management of Federal Lands: Frequently Asked Questions*, by Carol Hardy Vincent

Agencies Managing Federal and Tribal Lands

The four FLMAs and BOEM administer most federal lands (onshore and offshore, surface and subsurface).

- **Forest Service (FS)**, in the Department of Agriculture, manages the 193 million acre National Forest System under a multiple-use mission, including livestock grazing, energy and mineral development, recreation, timber production, watershed protection, and wildlife and fish habitat.[12] Balancing the multiple uses across the national forest system has sometimes led to a lack of consensus regarding management decisions and practices.
- **Bureau of Land Management (BLM)**, in the Department of the Interior (DOI), manages 244 million acres of public lands, also under a multiple-use mission of livestock grazing, energy and mineral development, recreation, timber production, watershed protection, and wildlife and fish habitat.[13] Differences of opinion sometimes arise among and between users and land managers as a result of the multiple use opportunities on BLM lands. BLM also manages the 710 million acres of the federal subsurface mineral estate.[14]
- **U.S. Fish and Wildlife Service (FWS)**, in DOI, administers 89 million acres as part of the National Wildlife Refuge System (NWRS) as well as additional surface, submerged, and offshore areas.[15] FWS manages the NWRS through a dominant-use mission—to conserve plants and animals and associated habitats for the benefit of present and future generations.[16] In addition, FWS administers

[12] As authorized by the Multiple-Use and Sustained-Yield Act of 1960 (P.L. 86-517), 16 U.S.C. §§528-531.

[13] As authorized by the Federal Land Policy and Management Act of 1976 (FLPMA; P.L. 94-579), 43 U.S.C. §§1701 et seq.

[14] The Bureau of Land Management (BLM) manages the federal subsurface mineral estate in consultation with the other FLMAs or other private surface owners as needed.

[15] This figure only includes National Wildlife Refuge System (NWRS) federal lands within the 50 U.S. states under the primary jurisdiction of the U.S. Fish and Wildlife Service (FWS), including lands managed as Waterfowl Production Areas (WPAs) and Coordination Areas. It does not include lands and waters in the U.S. territories, areas administered under secondary or shared jurisdiction, marine national monuments outside of national wildlife refuges, or acres administered by the FWS but not owned by the government (e.g., acres administered or managed pursuant to easements or leases). In total, FWS administers, through primary or secondary jurisdiction, co-management, easements, and other agreements, 837 million acres of lands and waters within the NWRS. In addition, FWS administers an additional 19 million acres through other authorities that are not included within the NWRS. For more information, see U.S. Fish and Wildlife Service, *2019 Annual Lands Report*, at https://www.fws.gov/refuges/land/PDF/2019_Annual_Report_Data_Tables(508-Compliant).pdf.

[16] The NWRS mission is established in the National Wildlife Refuge System Administration Act, as amended, 16 U.S.C. §668dd(a)(2).

each unit of the NWRS pursuant to any additional purposes specified for that unit.[17] Other uses are permitted only to the extent that they are compatible with the conservation mission of the NWRS and any purposes identified for individual units. Determining compatibility can be challenging, but the FWS's stated mission generally has been seen to have helped reduce disagreements over refuge management and use.

- **National Park Service (NPS)**, in DOI, manages 80 million acres in the National Park System.[18] The NPS has a dual mission—to preserve unique resources and to provide for their enjoyment by the public.[19] NPS laws, regulations, and policies emphasize the conservation of park resources in conservation/use conflicts. Tension between providing recreation and preserving resources has produced management challenges for NPS.
- **Bureau of Ocean Management (BOEM)**, also in DOI, manages energy resources in areas of the outer continental shelf covering almost 2.5 billion acres located beyond state waters. These areas are defined in the Submerged Lands Act and the Outer Continental Shelf Lands Act (OCSLA).[20] BOEM's mission is to balance energy independence, environmental protection, and economic development through responsible, science-based management of offshore conventional and renewable energy resources. BOEM schedules and conducts OCS oil and gas lease sales, issues leases for deploying renewable energy technologies, and administers existing leases, among other responsibilities.

This report also addresses the management of tribal lands and resources, which are administered primarily through one lead agency.

- **Bureau of Indian Affairs (BIA)**, in DOI, is responsible for the administration and management of 55 million surface acres and 57 million acres of subsurface mineral estate held in trust by the United States for Indian tribes and individual tribal members.[21] In addition to its land management responsibilities, BIA administers programs for tribal government, social services, law enforcement, infrastructure, and probate, among others.[22] The BIA's mission is to uphold the federal trust responsibility to tribes and individual tribal members and to promote tribal self-determination and self-governance.

CRS Products

CRS In Focus IF10585, *The Federal Land Management Agencies*, by Katie Hoover

[17] For example, P.L. 115-97 amended the purpose of the Arctic National Wildlife Refuge to "provide for an oil and gas program on the Coastal Plain." For more information on the Arctic National Wildlife Refuge, see CRS Report RL33872, *Arctic National Wildlife Refuge (ANWR): An Overview*, by Laura B. Comay, Michael Ratner, and R. Eliot Crafton.

[18] An additional 5 million acres lie within the National Park System but are managed by entities other than NPS, including other federal agencies and nonfederal landowners.

[19] The National Park Service Organic Act of 1916, 54 U.S.C. §100101.

[20] 43 U.S.C. §§1301 et seq. and 43 U.S.C. §1331 et seq. Generally, the outer continental shelf (OCS) begins 3-9 nautical miles from shore (depending on the state) and extends 200 nautical miles outward, or farther if the continental shelf extends beyond 200 miles.

[21] Department of the Interior (DOI), Bureau of Indian Affairs (BIA), "About Us," at https://www.bia.gov/about-us.

[22] This report addresses only the BIA's land and resource management responsibilities to tribes and individual tribal members and does not discuss other programs and services administered by the BIA.

CRS Report R42656, *Federal Land Management Agencies and Programs: CRS Experts*, by R. Eliot Crafton

CRS Report R45340, *Federal Land Designations: A Brief Guide*, coordinated by Laura B. Comay

CRS In Focus IF10832, *Federal and Indian Lands on the U.S.-Mexico Border*, by Carol Hardy Vincent and James C. Uzel

CRS Report R45265, *U.S. Fish and Wildlife Service: An Overview*, by R. Eliot Crafton

CRS Report RS20158, *National Park System: Establishing New Units*, by Laura B. Comay

CRS Report R43872, *National Forest System Management: Overview, Appropriations, and Issues for Congress*, by Katie Hoover and Anne A. Riddle

Agency Acquisition and Disposal Authorities

Congress has granted the FLMAs various authorities to acquire and dispose of land. The extent of this authority differs considerably among the agencies. The BLM has relatively broad authority for both acquisitions and disposals under the Federal Land Policy and Management Act of 1976 (FLPMA).[23] By contrast, NPS has no general authority to acquire land to create new park units or to dispose of park lands without congressional action. The FS authority to acquire lands is limited mostly to lands within or contiguous to the boundaries of a national forest, including the authority to acquire access corridors to national forests across nonfederal lands.[24] The agency has various authorities to dispose of land, but they are relatively constrained and infrequently used. FWS has various authorities to acquire lands, but no general authority to dispose of its lands. For example, the Migratory Bird Conservation Act of 1929 grants FWS authority to acquire land for the National Wildlife Refuge System—using funds from sources that include the sale of hunting and conservation stamps—after state consultation and agreement.[25]

The current acquisition and disposal authorities form the backdrop for consideration of measures to establish, modify, or eliminate authorities, or to provide for the acquisition or disposal of particular lands. Congress also addresses acquisition and disposal policy in the context of debates on the role and goals of the federal government in owning and managing land generally.

CRS Product

CRS Report RL34273, *Federal Land Ownership: Acquisition and Disposal Authorities*, by Carol Hardy Vincent et al.

Funding Issues

Funding for federal land and FLMA natural resource programs, BIA, and BOEM presents an array of issues for Congress. The FLMAs, BIA, and BOEM receive discretionary appropriations through Interior, Environment, and Related Agencies appropriations laws. In addition to questions related directly to amounts and terms of appropriations for these agencies, other funding

[23] 43 U.S.C. §§1701 et seq.

[24] 43 U.S.C. §1715(a).

[25] 16 U.S.C. §§715 et seq. The Migratory Bird Conservation Act permanently authorized and appropriated a fund supported through the sale of hunting and conservation stamps, import duties on arms and ammunition, and a portion of certain refuge entrance fees.

questions pertain to the Land and Water Conservation Fund (LWCF). The LWCF provides funds for land acquisition by federal agencies, outdoor recreation needs of states, and other purposes. Of focus is implementation of new mandatory spending authority in the Great American Outdoors Act (GAOA).[26] A second set of questions relates to the maintenance of assets by the agencies. Issues include the implementation of new mandatory spending in GAOA and how to address the backlog of maintenance projects while achieving other government priorities. A third set of questions relates to the compensation of states or counties for the presence of nontaxable federal lands and resources, including the distribution of revenues derived from those lands and resources and whether to revise or maintain existing payment programs.

CRS Products

CRS Report R46519, *Interior, Environment, and Related Agencies: Overview of FY2021 Appropriations*, by Carol Hardy Vincent

CRS In Focus IF11590, *Bureau of Land Management: FY2021 Appropriations*, by Carol Hardy Vincent

CRS In Focus IF11470, *U.S. Fish and Wildlife Service: FY2021 Appropriations*, by R. Eliot Crafton

CRS In Focus IF11661, *National Park Service: FY2021 Appropriations*, by Laura B. Comay

CRS Report R42757, *National Park Service Appropriations: Ten-Year Trends*, by Laura B. Comay

CRS In Focus IF11638, *Forest Service: FY2021 Appropriations*, by Katie Hoover

CRS Report R46557, *Forest Service Appropriations: Ten-Year Data and Trends (FY2011-FY2020)*, by Katie Hoover

CRS Report R45994, *Federal Land Management Agencies' Mandatory Appropriations Accounts*, coordinated by Carol Hardy Vincent

Land and Water Conservation Fund

The Land and Water Conservation Fund Act of 1965 was enacted to help preserve, develop, and assure access to outdoor recreation facilities to strengthen the health of U.S. citizens.[27] The law created the Land and Water Conservation Fund in the U.S. Treasury as a funding source to implement its outdoor recreation purposes. The LWCF has been the principal source of monies for land acquisition for outdoor recreation by the four FLMAs. The LWCF also has funded a matching grant program to assist states with outdoor recreational needs and other federal programs with purposes related to lands and resources.

The 116th Congress made major changes to the operation of the LWCF. Congress permanently extended the provisions of the LWCF Act that provide for $900 million in specified revenues to be deposited in the fund annually.[28] Nearly all of the revenues are derived from oil and gas leasing on the OCS. Congress also changed the appropriations under the LWCF Act from

[26] P.L. 116-152.

[27] P.L. 88-578; 54 U.S.C. §§200301, et seq.

[28] John D. Dingell, Jr. Conservation, Management, and Recreation Act (P.L. 116-9, §3001). Hereinafter referred to as the *Dingell Conservation Act*.

discretionary to mandatory spending and provided for the allocation of $900 million in mandatory appropriations for FY2021.[29] In the past, Congress determined the level of discretionary appropriations each year, and yearly appropriations had fluctuated widely since the origin of the program. Currently, as in the past, the outdoor recreation state grant program receives additional mandatory appropriations under the Gulf of Mexico Energy Security Act of 2006 (GOMESA).[30]

Of focus is the implementation of the 116th Congress changes, especially the allocation of the mandatory appropriations. Some issues center on the authority of the President and Congress to allocate monies among accounts, programs, and projects. Others pertain to the division of monies among federal programs (i.e., land acquisition) and state grant programs (e.g., outdoor recreation grants to states).

CRS Products

CRS In Focus IF11636, *The Great American Outdoors Act, P.L. 116-152*, by Carol Hardy Vincent, Laura B. Comay, and Bill Heniff Jr.

CRS Report R46563, *Land and Water Conservation Fund: Processes and Criteria for Allocating Funds*, coordinated by Carol Hardy Vincent

CRS Report RL33531, *Land and Water Conservation Fund: Overview, Funding History, and Issues*, by Carol Hardy Vincent

Deferred Maintenance

The FLMAs have maintenance responsibility for their buildings, roads and trails, recreation sites, and other infrastructure. Congress continues to focus on the agencies' *deferred maintenance and repairs*, defined as "maintenance and repairs that were not performed when they should have been or were scheduled to be and which are put off or delayed for a future period."[31] The agencies assert that continuing to defer maintenance of facilities accelerates their rate of deterioration, increases their repair costs, and decreases their value and safety.

Congressional and administrative attention has centered on the NPS backlog, which has continued to increase from an FY1999 estimate of $4.3 billion in nominal dollars.[32] For FY2018, DOI estimated deferred maintenance for NPS at $11.9 billion. More than half of the backlogged maintenance is for roads, bridges, and other transportation infrastructure. The other FLMAs also have maintenance backlogs. DOI estimated that deferred maintenance for FY2018 for FWS was $1.3 billion, and the BLM backlog was $1.0 billion. FS estimated its backlog for FY2018 at $5.2

[29] The change from discretionary to mandatory spending was included in the Great American Outdoors Act (GAOA; P.L. 116-152, §3). The allocation of the $900 million in mandatory spending for FY2021 was set out in the Consolidated Appropriations Act, 2021 (P.L. 116-260, Division G) and the accompanying explanatory statement.

[30] P.L. 109-432.

[31] This definition is taken from the Statement of Federal Financial Accounting Standards 42: Deferred Maintenance and Repairs, p. 1463 (pdf) of the *FASAB Handbook of Federal Accounting Standards and Other Pronouncements, as Amended*, available on the website of the Federal Accounting Standards Advisory Board at http://files.fasab.gov/pdffiles/2018_fasab_handbook.pdf.

[32] The FY1999 estimate is $6.5 billion in inflation-adjusted estimated FY2021 constant dollars using the GDP Chained Price Index from the White House Office of Management and Budget, Table 10.1, "Gross Domestic Product and Deflators used in the Historical Tables—1940-2025," in *Historical Tables*.

billion, with approximately 70% for roads, bridges, and other transportation infrastructure.[33] Thus, the four agencies together had a combined FY2018 backlog estimated at $19.4 billion.

A perennial issue for Congress is the sufficiency of funding for capital improvement projects. The 116th Congress established a new fund with mandatory spending—the National Parks and Public Land Legacy Restoration Fund—to augment funding for deferred maintenance needs of FLMAs (and the Bureau of Indian Education).[34] For each of FY2021-FY2025, the fund is to receive up to $1.9 billion from specified energy revenues. Most of the money (70%) is for the NPS, with at least 65% of the monies for "non-transportation" projects.

Issues of focus center on the amounts of revenue deposited in the fund, the authority of the President and Congress to allocate monies from this fund, and the processes for prioritizing projects. A separate issue involves determining the total funding provided for deferred maintenance each year, because annual presidential budget requests and appropriations documents have not identified and aggregated funds for FLMA deferred maintenance. Other issues pertain to the balance of maintenance of existing infrastructure with the acquisition of new assets and the priority of maintaining infrastructure relative to other government functions.

CRS Products

CRS In Focus IF11636, *The Great American Outdoors Act, P.L. 116-152*, by Carol Hardy Vincent, Laura B. Comay, and Bill Heniff Jr.

CRS Report R43997, *Deferred Maintenance of Federal Land Management Agencies: FY2009-FY2018 Estimates and Issues*, by Carol Hardy Vincent

CRS Report R44924, *National Park Service Deferred Maintenance: Frequently Asked Questions*, by Laura B. Comay

Federal Payment and Revenue-Sharing Programs

As a condition of statehood, most states forever waived the right to tax federal lands within their borders. Some assert that states or counties should be compensated for services related to the presence of federal lands, such as fire protection, police cooperation, or longer roads to skirt the federal property. Under federal law, state and local governments receive payments through various programs due to the presence of federally owned land.[35] The basis, distribution, recipients, and authorized uses of these payments vary greatly between programs. Some of these programs are run by specific agencies and apply only to that agency's land. Many of the payment programs are based on revenue generated from specific land uses and activities, while other payment programs are based on acreage of federal land and other factors. The adequacy, coverage, equity, and sources of the payments for all of these programs are recurring issues for Congress.

[33] The estimates of deferred maintenance of DOI agencies were provided to CRS by DOI on March 25, 2019. The estimate of deferred maintenance of the Forest Service was provided to CRS by the Forest Service on June 17, 2019.

[34] GAOA (P.L. 116-152, §2), 54 U.S.C. §§200401 et seq.

[35] For example, a program commonly referred to as Impact Aid supports local schools based on the presence of children of federal employees, including military dependents. It provides some support to local governments, however, and to some extent it compensates for lost property-tax revenue when military families live on federally owned land. For more information, see CRS Report R45400, *Impact Aid, Title VII of the Elementary and Secondary Education Act: A Primer*, by Rebecca R. Skinner.

The most widely applicable onshore program, administered by DOI, applies to many types of federally owned land and is called Payments in Lieu of Taxes (PILT).[36] Each eligible county's PILT payment is calculated using a complex formula based on five factors, including federal acreage and population. Counties containing eligible lands administered by the four FLMAs, as well as eligible federal lands managed by certain other agencies, may receive PILT payments. Counties with NPS lands receive payments primarily under PILT. Counties containing certain FWS lands are eligible to receive PILT payments, and FWS has an additional payment program for certain refuge lands, known as the Refuge Revenue Sharing program. Payments made under PILT may be offset if counties receive payments under certain other federal payment and revenue-sharing programs. In addition to PILT payments, counties containing FS and BLM lands also receive payments based primarily on receipts from revenue-producing activities on their lands. Some of the payments from these other programs will be offset in the county's PILT payment in the following year. One program (Secure Rural Schools, or SRS) compensates counties with FS lands or certain BLM lands in Oregon for declining timber harvests. The authorization for the SRS program expired after FY2020, and the last authorized payments are to be disbursed in FY2021.

The federal government shares the revenue from mineral and energy development, both onshore and offshore, according to statutory formulas. The allocations vary based on a number of factors. For example, revenue collected (rents, bonuses, and royalties) from onshore mineral leases is shared 50% with the states under the Mineral Leasing Act (MLA) of 1920.[37] Alaska generally receives 90% of revenues collected on federal onshore leases under the MLA, but some statutes specific to certain areas—including the National Petroleum Reserve in Alaska (NPR-A) and the Coastal Plain of the Arctic National Wildlife Refuge (ANWR)—provide for a 50% revenue share with the state.[38] As another example, revenues from geothermal resources developed on federal lands are shared 50% with states and 25% with counties.[39] Revenues from other mineral resources and energy developments (e.g., solar, wind, biomass, mineral materials) generally follow other allocation schemes.

Revenue collected from offshore mineral and energy development on the OCS is shared in many cases with the coastal states, albeit at a lower rate. The OCSLA allocates 27% of the revenue generated from certain near-shore federal leases to the coastal states.[40] Separately, GOMESA provided for revenue sharing from qualified Gulf of Mexico leases at a rate of 37.5% for four coastal states, up to a collective cap.[41] Some coastal states have advocated for a greater share of the OCS revenues based on the impacts oil and gas projects have on coastal infrastructure and the environment, while other states and stakeholders have contended that more of the revenue should go to the general fund of the Treasury or to other federal programs.

[36] As authorized by the Payments in Lieu of Taxes Act (P.L. 94-565), 31 U.S.C. §§6901-6907. For more information, see CRS Report R46260, *The Payments in Lieu of Taxes (PILT) Program: An Overview*, by R. Eliot Crafton.

[37] 30 U.S.C. §191. Disbursements are subject to an administrative fee and sequestration.

[38] 42 U.S.C. §6506a(*l*); 16 U.S.C. §3143 note.

[39] 30 U.S.C. §1019. Disbursements from geothermal resources to states are subject to a 2% administrative fee and sequestration; disbursements to counties are subject to sequestration.

[40] 43 U.S.C. §1337(g). The shared revenues are those from leases on tracts that lie within 3 nautical miles of the seaward boundary of a coastal state.

[41] P.L. 109-432. The four states are Alabama, Louisiana, Mississippi, and Texas. The cap is $500 million annually through FY2055, except in FY2020 and FY2021, when the cap is $650 million (P.L. 115-97).

CRS Products

CRS Report R46260, *The Payments in Lieu of Taxes (PILT) Program: An Overview*, by R. Eliot Crafton

CRS Report R41303, *The Secure Rural Schools and Community Self-Determination Act: Background and Issues*, by Katie Hoover

CRS Report R42404, *Fish and Wildlife Service: Compensation to Local Governments*, by R. Eliot Crafton

CRS Report R42951, *The Oregon and California Railroad Lands (O&C Lands): Issues for Congress*, by Katie Hoover

CRS Report R46537, *Revenues and Disbursements from Oil and Natural Gas Production on Federal Lands*, by Brandon S. Tracy

CRS Report R46195, *Gulf of Mexico Energy Security Act (GOMESA): Background, Status, and Issues*, by Laura B. Comay and Marc Humphries

CRS Report R42439, *Compensating State and Local Governments for the Tax-Exempt Status of Federal Lands: What Is Fair and Consistent?*, by Katie Hoover

Climate Policy and Federal Land Management

Scientific evidence shows that the United States' climate has been changing in recent decades.[42] This poses several interrelated and complex issues for the management of federal lands and their resources, including efforts related to mitigation, adaptation, and resiliency. Overall, climate change is introducing uncertainty about conditions previously considered relatively stable and predictable. Given the diversity of federal lands and resources, concerns are wide-ranging and include invasive species, sea-level rise, wildlife habitat changes, and increased vulnerability to extreme weather events, as well as uncertainty about the effects of these changes on tourism and recreation. Some specific observed effects of climate change include changes to the timing, duration, and intensity of wildfire seasons; warmer winter temperatures, which allow for a longer tourism season but also for various insect and disease infestations to persist in some areas; and habitat shifts, which affect the status of sensitive species but may also increase forest productivity.[43] Another concern is how climate change may affect some iconic federal lands, such as the diminishing size of the glaciers at Glacier National Park in Montana and several parks in Alaska, or the flooding of some national wildlife refuges.[44]

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[42] For more discussion of climate change science, see D.J. Wuebbles et al., eds., *Climate Science Special Report: Fourth National Climate Assessment*, U.S. Global Change Research Program, vol. I, Washington, DC, 2017.

[43] See for example, A. L. Westerling et al., "Warming and Earlier Spring Increase Western U.S. Forest Wildfire Activity," *Science*, vol. 313 (August 18, 2006), pp. 940-943; C.J. Fettig et al., "Changing Climates, Changing Forests: A Western North American Perspective," *Journal of Forestry*, vol. 111, no. 3 (2013), pp. 214-228; C. Moritz et al., "Impact of a Century of Climate Change on Small-Mammal Communities in Yosemite National Park," *Science*, vol. 322, no. 5899 (October 2008), pp. 261-264; C. Boisvenue and S. Running, "Impacts of Climate Change on Natural Forest Productivity - Evidence Since the Middle of the 20th Century," *Global Change Biology*, vol. 12, no. 5 (May 2006), pp. 862-882; and B. Jones and D. Scott, "Climate Change, Seasonality, and Visitation to Canada's National Parks," *Journal of Park & Recreation Administration*, vol. 24, no. 2 (2006), pp. 42-62.

[44] See for example, Patrick Gonzalez et al., "Disproportionate Magnitude of Climate Change in United States National Parks," *Environmental Research Letters*, vol. 13, no. 10 (2018); Gregory T. Pederson, Stephen T. Gray, and Daniel B. Fagre, *Long-Duration Drought Variability and Impacts on Ecosystem Services: A Case Study from Glacier National*

The role of the FLMAs in responding to climate change is an issue under debate. Some stakeholders are concerned that a focus on climate change adaptation may divert resources and attention from other agency activities and near-term challenges. Others see future climate conditions as representing an increased risk to the effective performance of agency missions and roles, including the implications of agencies' multiple-use mandates.

A related debate concerns the impact of energy resources and production on federal lands. Both traditional sources of energy (nonrenewable fossil fuels such as oil, gas, and coal) and alternative sources of energy (such as solar, wind, and geothermal) are available on some federal lands (see the "Energy and Mineral Resources" section of this report for more information). A 2018 report from the U.S. Geological Survey estimated that greenhouse gas emissions resulting from the extraction and use of fossil fuels produced on federal lands and waters account for, on average, approximately 24% of national emissions for carbon dioxide, 7% for methane, and 1.5% for nitrous oxide.[45] This, along with other factors, has contributed to questions among observers about the extent to which the agencies should provide access to and promote different sources of energy production on federal lands based on the effects on climate from that production. Since fossil fuel emissions contribute to climate change, some stakeholders concerned about climate change assert that the agencies should prioritize renewable energy production on federal lands over traditional energy sources. Others assert that, even with renewable energy growth, conventional sources will continue to be needed in the foreseeable future, and that the United States should pursue a robust traditional energy program to ensure U.S. energy security and remain competitive with other nations, including continuing to make fossil fuel production available on federal lands.

On January 27, 2021, President Biden issued Executive Order (E.O.) 14008, stating the Administration's policy "to organize and deploy the full capacity of its agencies to combat the climate crisis."[46] The executive order calls on agencies—including the FLMAs—to implement an approach that, among other things, "increases resilience to the impacts of climate change; protects public health; conserves our lands, waters, and biodiversity; delivers environmental justice."[47] This includes, for example, directing the Secretary of the Interior—in consultation with the Secretary of Agriculture and other agency heads—to recommend steps for the United States to take to achieve a goal of conserving at least 30% of our lands and waters by 2030 and to develop a strategy for establishing a Civilian Climate Corps Initiative to, among other tasks, "conserve and restore public lands and waters."[48] E.O. 14008 also directs the Secretary of the Interior to pause all "new oil and natural gas leases" on federal lands and waters and review and reconsider these in regard to potential climate impacts (see the "Energy and Mineral Resources" section of this report for more information).[49]

Park, Montana, U.S. Geologic Survey, Earth Interactions, vol. 10, paper 4, January 2006.

[45] See for example, Matthew D. Merrill, Benjamin M. Sleeter, and Philip A. Freeman, et al., *Federal Lands Greenhouse Gas Emissions and Sequestration in the United States: Estimates for 2005-14*, United States Geological Survey, 2018-5131, 2018.

[46] Executive Order 14008, "Tackling the Climate Crisis at Home and Abroad," 86 *Federal Register* 7619, January 27, 2021. Hereinafter referred to as *E.O. 14008*.

[47] E.O. 14008, §201.

[48] E.O. 14008, §§216, 215. For more information on conservation corps programs, see CRS Report R46513, *Federal Conservation Corps Programs: Options for Congress in Response to COVID-19*, by Mark K. DeSantis.

[49] E.O. 14008, §208.

CRS Products

CRS Report R43915, *Climate Change Adaptation by Federal Agencies: An Analysis of Plans and Issues for Congress*, coordinated by Jane A. Leggett

CRS Report R46454, *Climate Change Adaptation: U.S. Department of Agriculture*, coordinated by Genevieve K. Croft

Energy and Mineral Resources

Much of the onshore federal estate has been open to energy and mineral exploration and development, including many BLM and FS lands, under these agencies' multiple use missions. This includes both traditional (nonrenewable) and alternative (renewable) energy production. However, many NPS lands and designated wilderness areas, as well as certain other federal lands, have been specifically withdrawn from exploration and development. Most federal areas offshore also have been available for exploration and development, although leases have been offered only in selected areas.[50] DOI is responsible for mineral resource developments on all federal lands: BLM manages the onshore federal mineral estate, and BOEM manages the offshore federal estate. The rest of this section introduces the general statutory framework for energy and mineral resource development; three subsections then provide more information and specific issues related to traditional and renewable energy and mineral resources.

Statutory authorities for developing minerals on federal lands vary by mineral category and other factors. For onshore development, statutory authorities create three general mineral categories: leasable minerals, mineral materials, and locatable minerals. Leasable minerals, such as oil, natural gas, coal, phosphate, potassium, and sodium, among others, are governed by the Mineral Leasing Act of 1920.[51] The development of leasable minerals requires an approved lease and royalty payments. Mineral materials (or salable minerals) are defined by the Materials Act of 1947 and include low-value minerals and materials, such as sand, gravel, stone, and clay, among others.[52] Mineral materials removed from federal lands are sold (or disposed) at market value for the quantity purchased. Locatable (or hardrock) minerals are defined by the General Mining Law of 1872 and are those minerals not defined by other statutes; typical examples include gold, silver, copper, and gemstones.[53] Mining of locatable minerals on onshore federal lands is not subject to royalties or a leasing process. Offshore, the Outer Continental Shelf Lands Act (OCSLA) governs all mineral development on the OCS, consisting primarily of oil and gas development.[54]

Many federal lands and waters also are open for the development of renewable energy resources pursuant to various laws and authorities. BLM and FS manage land that is considered suitable for

[50] For more information, see CRS Report R44504, *Five-Year Program for Offshore Oil and Gas Leasing: History and Program for 2017-2022*, by Laura B. Comay, Marc Humphries, and Adam Vann.

[51] Mineral Leasing Act (MLA; P.L. 66-146, 30 U.S.C. §§181 et seq.). The MLA applies only to public domain lands; the Mineral Leasing Act for Acquired Lands generally extends the MLA to acquired lands (P.L. 80-382, 30 U.S.C. §§351 et seq.).

[52] P.L. 80-291.

[53] 17 Stat. 91. If locatable minerals are found on acquired lands, they are defined as *leasable minerals* and are covered by the Mineral Leasing Act for Acquired Lands of 1947 (P.L. 80-382, codified at 30 U.S.C. §§351 et seq.).

[54] 43 U.S.C. §§1331-1356b. Although the primary offshore mineral commodities are oil and gas, operators also have produced salt and sulphur from offshore leases, and BOEM also manages a sand and gravel leasing program (BOEM, "Competitive Leasing of OCS Marine Minerals," at https://www.boem.gov/Leasing-C-Marine-Minerals).

renewable energy generation and have authorized projects for geothermal, wind, solar, and biomass developments.[55] BOEM has issued leases for offshore wind development in the Atlantic region of the OCS.

Traditional and renewable energy development on federal lands contributes to total U.S. energy production. For example, in 2019, as a percentage of total U.S. production, approximately 22% of crude oil and 13% of natural gas production came from federal lands (onshore and offshore combined).[56] In 2019, coal produced on federal leases contributed 41% to total domestic coal production.[57] Another example is geothermal electricity generation; its capacity on federal lands in 2018 represented over 40% of U.S. total geothermal electricity generation capacity.[58]

Issues related to the availability of onshore and offshore federal lands for energy and mineral development are of perennial interest to Congress. Debates include how to balance energy and mineral development with environmental protection and other uses of federal lands. Some seek to open more federal lands for traditional and/or renewable energy development, whereas others have sought to increase restrictions for areas they consider too sensitive or inappropriate for development. Some oppose fossil fuel extraction as incompatible with goals for environmental protection and climate change mitigation, while others support extraction of these fuels as a source of economic activity and U.S. energy security. Some see existing markets as providing fair market value, while others note that some public concerns (e.g., related to greenhouse gas emissions) stem from the production of these resources but are not included in their market prices. Other issues that may be of interest to Congress include optimal royalty rates, state administration of federal resources, revenue sharing, improving leasing processes, and leasing lands in the Arctic National Wildlife Refuge in northeastern Alaska. More specific issues related to traditional and renewable energy resources and other mineral resources are discussed in the following sections.

CRS Products

CRS Report R46537, *Revenues and Disbursements from Oil and Natural Gas Production on Federal Lands*, by Brandon S. Tracy

CRS Report R44504, *Five-Year Program for Offshore Oil and Gas Leasing: History and Program for 2017-2022*, by Laura B. Comay, Marc Humphries, and Adam Vann

CRS Report R44692, *Five-Year Offshore Oil and Gas Leasing Program for 2019-2024: Status and Issues in Brief*, by Laura B. Comay

CRS Report R46195, *Gulf of Mexico Energy Security Act (GOMESA): Background, Status, and Issues*, by Laura B. Comay and Marc Humphries

[55] This report does not cover hydroelectric resources on federal lands. Of the total U.S. installed hydroelectric capacity, approximately 49% (39,000 MW) is federally owned and operated, primarily by the U.S. Army Corps of Engineers and the Bureau of Reclamation (U.S. Department of Energy, *Hydropower Vision*, 2016, p. 11). For more information on this topic, see CRS Report R42579, *Hydropower: Federal and Nonfederal Investment*, by Kelsi Bracmort, Adam Vann, and Charles V. Stern.

[56] CRS calculations using production data from the Office of Natural Resources Revenue (ONRR), at https://revenuedata.doi.gov/query-data, and the U.S. Energy Information Administration (EIA), at https://www.eia.gov/dnav/pet/pet_crd_crpdn_adc_mbbl_a.htm and https://www.eia.gov/dnav/ng/ng_prod_sum_a_epg0_fgw_mmcf_a.htm. Excludes production data from ONRR's category "Native American" lands.

[57] CRS calculations using production data from ONRR and EIA, *Monthly Energy Review*, July 2020. Excludes production data from ONRR's category "Native American" lands.

[58] BLM, "Renewable Energy: Geothermal," fact sheet, March 2018, at https://www.blm.gov/sites/blm.gov/files/Geothermal%20Fact%20Sheet.pdf. Data for 2018 are the most recent available.

CRS Report R44922, *The U.S. Coal Industry: Historical Trends and Recent Developments*, by Marc Humphries

CRS Report RL33872, *Arctic National Wildlife Refuge (ANWR): An Overview*, by Laura B. Comay, Michael Ratner, and R. Eliot Crafton

CRS Report R42579, *Hydropower: Federal and Nonfederal Investment*, by Kelsi Bracmort, Adam Vann, and Charles V. Stern

CRS Report R46278, *Policy Topics and Background Related to Mining on Federal Lands*, by Brandon S. Tracy

Traditional (Nonrenewable) Energy Resources

Traditional energy resources developed on federal lands include oil, gas, and coal onshore and oil and gas offshore. In FY2019, BLM administered 24,127 onshore oil and natural gas leases in producing status, covering 12.4 million acres, primarily on BLM and FS lands.[59] In FY2020, federal revenues from oil and natural gas leases on onshore federal lands totaled $2.4 billion, representing 83.8% of total federal revenues from energy and mineral leases on onshore federal lands.[60] At the end of FY2019, BLM managed 287 coal leases covering 437,039 acres, and in FY2020, coal leases resulted in $327.6 million of federal revenues.[61] Offshore, BOEM administered approximately 2,300 active oil and gas leases on roughly 12 million acres on the OCS as of December 2020.[62] Federal revenues from offshore oil and gas leasing totaled $3.7 billion in FY2020, representing 99.9% of total federal revenues from offshore energy.[63]

President Biden's January 2021 executive order, discussed above in the section on "Climate Policy and Federal Land Management," contained a provision directing the Secretary of the Interior to

> pause new oil and natural gas leases on public lands or in offshore waters pending completion of a comprehensive review and reconsideration of Federal oil and gas permitting and leasing practices in light of the Secretary of the Interior's broad stewardship responsibilities over the public lands and in offshore waters, including potential climate and other impacts associated with oil and gas activities on public lands or in offshore waters.[64]

[59] BLM, *Public Land Statistics 2019*, 2020, Table 3-17, p. 108. FY2019 data are the most recent available for the acreage and number of oil and gas and coal leases on onshore federal lands. Some leases occur on FWS and NPS lands (see CRS Report R45192, *Oil and Gas Activities Within the National Wildlife Refuge System*, by R. Eliot Crafton, Laura B. Comay, and Marc Humphries).

[60] CRS calculations using data from ONRR, including commodity categories of "Oil," "Gas," "Oil & Gas," and "Natural Gas Liquids," and excluding the land category "Native American" (ONRR, at https://revenuedata.doi.gov/downloads/revenue/fiscal_year_revenue.xlsx). Fees for Applications for Permit to Drill (APD), collected by BLM, are not yet available for FY2020; in FY2019, APD fees totaled $32 million.

[61] BLM, *Public Land Statistics 2019*, 2020, Table 3-18, pp. 111-113; and CRS calculations using ONRR revenue data, excluding revenues from ONRR's category "Native American" lands.

[62] BOEM, *Combined Leasing Status Report*, as of December 1, 2020, at https://www.boem.gov/oil-gas-energy/leasing/combined-leasing-status-report. BOEM defines an "active lease" as one that has been executed by the lessor and lessee, has an effective date, and has not been relinquished, expired, or terminated. Not all active leases are producing oil and gas.

[63] CRS calculations using data from ONRR.

[64] E.O. 14008, §208.

The scope and duration of the pause required by the executive order are not fully clear as of the date of this CRS report. The pause applies specifically to "new oil and natural gas leases."[65] The executive order also directed the Secretary to consider "whether to adjust royalties associated with coal, oil, and gas resources extracted from public lands and offshore waters, or take other appropriate action, to account for corresponding climate costs."

Congress may consider multiple issues related to oil, gas, and coal exploration on federal lands, including issues treated in President Biden's executive order and other issues. Congress may debate access to federal areas for oil, gas, and coal development, weighing factors such as regional economic needs, U.S. energy security, the vulnerability of lands or oceans to environmental damage, and the contribution of fossil fuel extraction to climate change. Some support permanently reducing or ending fossil-fuel exploration and development on federal lands through congressional legislation or administrative withdrawals, while others contend that continued or increased development can be done safely and would strengthen the nation's domestic energy portfolio. Other issues include how to ensure collection of fair market value for the disposition of fossil-fuel resources and whether to change the current distribution of revenues from federal leases to states, federal programs, and the Treasury (see "Federal Payment and Revenue-Sharing Programs" section).

Renewable Energy Resources

Onshore, renewable energy resources developed on BLM and FS lands include geothermal, solar, wind, and biomass.[66]

- **Geothermal Energy.** Development of geothermal resources on onshore federal lands follows a leasing process similar to that for oil and natural gas, pursuant to the Geothermal Steam Act of 1970.[67] Geothermal leases require the payment of rents and royalties. In FY2019, BLM managed 317 geothermal leases on onshore federal lands, covering 484,204 acres.[68] Revenues from geothermal leases on federal lands totaled $18 million in FY2020.[69]
- **Solar and Wind Energy.** Solar and wind projects on onshore federal lands require issuance of rights-of-way (ROWs) pursuant to FLPMA.[70] Holders of ROWs for solar and wind energy facilities and associated transmission lines pay rent on the acres of land encumbered and capacity fees.[71] In FY2019, BLM administered 88 ROWs for solar and wind energy activities, collecting $28,058 in rental fees; comprehensive data from FS are not available.[72]

[65] According to the White House, the order "does not restrict energy activities on lands that the United States holds in trust for Tribes." White House, "FACT SHEET: President Biden Takes Executive Actions to Tackle the Climate Crisis at Home and Abroad, Create Jobs, and Restore Scientific Integrity Across Federal Government," January 27, 2021.

[66] Also see footnote 55 for discussion of hydropower.

[67] P.L. 91-581, 30 U.S.C. §§1001 et seq.

[68] BLM, *Public Land Statistics 2019*, 2020, Tables 3-31 and 3-14, pp. 92-100. FY2019 data are the most recent available.

[69] CRS calculations using data from ONRR.

[70] 43 U.S.C. §§1761 et seq.

[71] 43 C.F.R §2800.

[72] BLM, *Public Land Statistics 2019*, 2020, Table 3-4, p. 61. As of June 2020, FS indicates that it had authorized one wind project via a special use permit; fees collected for 2020 were $260,554 (email with Congressional Liaison, FS, June 24, 2020).

- **Woody Biomass.** Another potential source of renewable energy production is the utilization of forest-derived biomass—or *woody biomass*—removed from federal lands.[73] Using woody biomass as an energy feedstock has received attention from stakeholders in the biomass supply chain because of its potential widespread availability and potential for landscape-related co-benefits (e.g., reduced forest density and associated risks to insect and disease infestations and wildfires). Specific issues include whether to include woody biomass removed from federal lands in the Renewable Fuel Standard or the extent the federal government should consider woody biomass a carbon-neutral energy source.[74]

Offshore, wind energy is the only renewable resource currently under commercial development in U.S. waters, although research is being conducted in other areas, such as ocean wave and ocean current energy.[75]

- **Offshore Wind.** BOEM is responsible for managing leases, easements, and rights-of-way to support development of offshore wind energy. BOEM has issued more than 15 wind energy leases, all in the Atlantic region.[76] In September 2020, the first offshore wind project in federal waters—a pilot project off the coast of Virginia—began operations.[77] President Biden's E.O. 14008 included a goal of "doubling offshore wind by 2030."[78] The interpretation of this goal, and the activities BOEM might undertake in pursuit of it, are unclear as of the date of this CRS report. Specific issues related to offshore wind include how to balance development with other ocean activities, such as fishing, Department of Defense testing and training, and oil and gas development.

More broadly, issues regarding renewable energy resource development may include discussions of the tradeoffs between the proposed development and other uses of the federal land or waters and questions about the environmental impacts of developing these resources as weighed against potential environmental benefits from increasing renewable energy capacity. Other issues for Congress include whether to take steps to facilitate and expedite the development of these resources or their markets, such as through research and development, project loan guarantees, extension of federal tax credits for renewable energy production, job training programs, or oversight of regulatory issues for these emerging industries. Also of interest have been questions of how to distribute revenues from renewable energy leasing and how to obtain fair market value for the federal government.

[73] *Woody biomass* is defined by FS and BLM as the trees and woody plants, including limbs, tops, needles, leaves, and other woody parts, grown in a forest, woodland, or rangeland environment that are the byproducts of forest management.

[74] For more information on the renewable fuel standard, see CRS Report R43325, *The Renewable Fuel Standard (RFS): An Overview*, by Kelsi Bracmort.

[75] P.L. 109-58, §388(a). For more information about offshore renewable energy projects, see https://www.boem.gov/renewable-energy/renewable-energy-program-overview.

[76] See BOEM, "Renewable Energy Programs: Lease and Grant Information," at http://www.boem.gov/Lease-and-Grant-Information/.

[77] Separately, the Block Island Wind Farm, a five-turbine project off of Rhode Island, is operating in state waters.

[78] E.O. 14008, §207.

Mineral and Material Resources

Issues related to mineral and material resource development on federal lands commonly include debates regarding royalties and other charges or fees. For example, a common issue regarding locatable minerals relates to the absence of royalties. Some see the current royalty-free system as facilitating development of mineral resources and promoting employment in the mining industry. Others advocate for assessing royalties on the disposition of these federal assets as a means of generating federal revenue (and state revenue, if disbursements were similar to other mineral laws). Sales of mineral materials resulted in federal revenues of approximately $20 million in FY2019.[79]

Other issues relate to mine reclamation, including concerns about the environmental condition of abandoned mines and the amount required for reclamation bonds for mines on federal lands. For example, some argue that greater bond requirements could ensure proper mine reclamation, while others argue that increases to bond requirements could reduce mining activity.

Forest Management

Management of federal forests presents several policy questions for Congress. For instance, there are questions about the appropriate level of timber harvesting on federal forest lands, particularly FS and BLM lands, and how to balance timber harvesting against the other statutory uses and values for these federal lands. Further, Congress may debate whether or how the agencies use timber harvesting or other forest management activities to achieve various resource-management objectives, such as improving wildlife habitat or improving a forest's resistance and resilience to *disturbance events* (e.g., wildfires, timber harvests, ice storms). Congress also may debate the role of federal forests in mitigating climate impacts, such as whether and how to balance forest carbon sequestration considerations against other statutory uses and whether post-disturbance reforestation activities on federal lands are sufficient.

FS manages 144.9 million acres of forests and woodlands in the National Forest System (NFS) under the principles of multiple use and sustained yield.[80] In FY2019, approximately 2.6 billion board feet of timber and other forest products were harvested from NFS lands, at a value of $166.8 million.[81] BLM manages approximately 37.6 million acres of forest and woodlands.[82] The vast majority are public domain forests, managed under the principles of multiple use and sustained yield as established by FLPMA.[83] The 2.6 million acres of Oregon & California (O&C) Railroad Lands and Coos Bay Wagon Road lands in western Oregon, however, are managed under a statutory direction for permanent forest production, as well as watershed protection, recreation, and contributing to the economic stability of local communities and industries.[84] In FY2019, approximately 206.3 million board feet of timber and other forest products were harvested from BLM lands, at a value of $50.3 million.[85] The NPS and FWS have limited

[79] BLM, *Public Land Statistics 2019*, 2020, Table 3-20, p. 126.

[80] 16 U.S.C. §§528-531. Statistics from Sonja Oswalt et al., *Forest Resources of the United States, 2017: A Technical Document Supporting the Forest Service 2020 Update of the RPA Assessment*, USDA, FS, 2017.

[81] Forest Service, *Cut and Sold Reports, FY2019*, at http://www.fs.fed.us/forestmanagement/products/sold-harvest/cut-sold.shtml.

[82] *Forest Resources of the United States*, 2017.

[83] 43 U.S.C. §§1701 et seq.

[84] 43 U.S.C. §§2601 et seq.

[85] Timber harvested from BLM lands generates a higher per unit value than timber harvested from NFS land due to a

authorities to cut, sell, or dispose of timber from their lands and have established policies to do so only in certain cases, such as controlling for insect and disease outbreaks.

One issue of concern for Congress is the ecological condition of the federal forests. Many contend that federal forests are ecologically degraded and that decades of wildfire suppression and other forest-management decisions have created overgrown forests overstocked with biomass (*fuels*) that are susceptible to insect and disease outbreaks and can serve to increase the spread or intensity of wildfires. Though most agree that action is needed, there is debate about the nature, scale, and implementation of actions required to improve or restore forest conditions. Some have identified administrative process barriers as impeding the agencies' progress toward forest restoration goals. Past Congresses have enacted provisions intended to expedite specific forest management projects on federal land and encourage forest restoration projects across larger areas, including projects which involve nonfederal landowners.[86] Others contend that the process established for expediting projects reduces public oversight of government actions or that expanding the application of some types of forest management activities may result in environmental impacts that exacerbate forest health concerns. Other forest health concerns relate to the extent federal forests are vulnerable to climate-related impacts.

CRS Products

CRS Report R45688, *Timber Harvesting on Federal Lands*, by Anne A. Riddle

CRS Report R43872, *National Forest System Management: Overview, Appropriations, and Issues for Congress*, by Katie Hoover and Anne A. Riddle

CRS Report R42951, *The Oregon and California Railroad Lands (O&C Lands): Issues for Congress*, by Katie Hoover

CRS In Focus IF11179, *Stewardship End Result Contracting: Forest Service and Bureau of Land Management*, by Anne A. Riddle

CRS In Focus IF11658, *The Good Neighbor Authority*, by Anne A. Riddle

CRS Report R46312, *Forest Carbon Primer*, by Katie Hoover and Anne A. Riddle

CRS Report R46313, *U.S. Forest Carbon Data: In Brief*, by Katie Hoover and Anne A. Riddle

CRS Report R45696, *Forest Management Provisions Enacted in the 115th Congress*, by Katie Hoover et al.

Other Land Designations

Congress, the President, and some executive branch officials may establish individual designations on federal lands. Although many designations are unique, some have been more commonly applied, such as national recreation area, national scenic area, and national monument. Congress has conferred designations on some nonfederal lands, such as national heritage areas, to commemorate, conserve, and promote important natural, scenic, historical, cultural, and recreational resources. Congress and previous Administrations also have designated certain

variety of factors, including the mix of timber types managed by each agency and the markets in which they operate. BLM, *Bureau Wide Timber Data Fourth Quarter Transactions, FY2019*, https://www.blm.gov/programs/natural-resources/forests-and-woodlands/timber-sales/bureau-wide-timber-data.

[86] These provisions were enacted as part of the Agriculture Improvement Act of 2018 (P.L. 115-334, also known as the 2018 farm bill, Title VIII) and the Consolidated Appropriations Act, 2018 (P.L. 115-141, Division O).

offshore areas as marine national monuments or sanctuaries. Controversial issues involve the types, locations, and management of such designations, which could include restrictions on some uses within the designated area. Other issues include the extent to which some designations should be altered, expanded, or reduced.

In addition, Congress has created three cross-cutting systems of federal land designations to preserve or emphasize particular values or resources, or to protect the natural conditions for biological, recreation, or scenic purposes. These systems are the National Wilderness Preservation System, the National Wild and Scenic Rivers System, and the National Trails System. The units of these three systems can be on federal lands under the jurisdiction of one or more agencies' lands. In addition, units of the National Wild and Scenic Rivers System and the National Trails System may be designated on nonfederal lands. Administering agencies manage them within parameters set in statute. Congress has debated establishing additional cross-cutting land systems, which could consist of new or existing designations.

CRS Products

CRS Report R45340, *Federal Land Designations: A Brief Guide*, coordinated by Laura B. Comay

CRS Report RL33462, *Heritage Areas: Background, Proposals, and Current Issues*, by Mark K. DeSantis

Wilderness and Related Designations

In 1964, the Wilderness Act created the National Wilderness Preservation System, with statutory protections that emphasize preserving certain areas in their natural states. Units of the system can be designated only by Congress. Many bills to designate wilderness areas have been introduced in each Congress. As of January 3, 2021, there were 803 wilderness areas, totaling approximately 112 million acres in 44 states (and Puerto Rico) and managed by all four of the FLMAs.[87] A wilderness designation generally prohibits commercial activities, motorized access, and human infrastructure from wilderness areas, subject to valid existing rights. Advocates propose wilderness designations to preserve the generally undeveloped conditions of the areas. Opponents see such designations as preventing certain uses and potential economic development in rural areas where such opportunities are relatively limited.

Designation of new wilderness areas can be controversial, and questions persist over the management of areas being considered for wilderness designation. FS reviews the wilderness potential of NFS lands during the forest planning process and recommends any identified potential wilderness areas for congressional consideration.[88] Management activities or uses that may reduce the wilderness potential of a recommended wilderness area may be restricted.[89]

BLM manages approximately 12 million acres of lands identified as *wilderness study areas* (WSAs).[90] Many WSAs were designated under Section 603 of FLPMA, which required BLM to review its lands for wilderness potential and make recommendations to Congress regarding the

[87] The 116th Congress enacted one bill that designated new wilderness areas or additions, the Dingell Conservation Act (P.L. 116-9).

[88] 36 C.F.R. §219.7(c)(v).

[89] 36 C.F.R. §219.10(b)(iv).

[90] BLM, "Public Land Statistics 2019," June 2020. P.L. 94-579.

lands' suitability for designation as wilderness.[91] BLM is required by FLPMA to protect the wilderness characteristics of these WSAs until they are acted upon by Congress, meaning that many uses in these areas are restricted or prohibited. Congress has designated some WSAs as wilderness, and has also included legislative language releasing BLM from the requirement to protect the wilderness characteristics of other WSAs. Questions persist over the management and designation of the remaining WSAs.

FS also manages approximately 58 million acres of lands identified as *inventoried roadless areas*.[92] Inventoried roadless areas are not part of the National Wilderness Preservation System, but road construction, road reconstruction, and timber harvesting are restricted on these lands, with some exceptions. The Clinton and George W. Bush Administrations each promulgated different roadless area regulations. Both were heavily litigated; however, the Clinton policy (*Roadless Rule*) to prohibit many activities on roadless areas remains applicable to most states after the Supreme Court refused to review a lower court's 2012 decision striking down the Bush rule.[93] In 2020, the Forest Service excepted the Tongass National Forest in the state of Alaska from the Roadless Rule.[94] Critics of the exception contend that allowing timber harvesting or road works may harm the Tongass's unique ecological qualities or regional industries, such as tourism and commercial fishing. Proponents of the exception contend it will help rural economies, particularly the timber industry, and allow more local decisionmaking regarding forest management.

CRS Products

CRS Report RL31447, *Wilderness: Overview, Management, and Statistics*, by Anne A. Riddle and Katie Hoover

CRS Report R41610, *Wilderness: Issues and Legislation*, by Anne A. Riddle, Katie Hoover, and Sandra L. Johnson

CRS Report R46504, *Forest Service Inventoried Roadless Areas (IRAs)*, by Anne A. Riddle and Adam Vann

CRS Report R46505, *The Alaska Roadless Rule: Eliminating Inventoried Roadless Areas (IRAs) in the Tongass National Forest*, by Anne A. Riddle

The National Wild and Scenic Rivers System and the National Trails System

Congress established the National Wild and Scenic Rivers System with the passage of the Wild and Scenic Rivers Act of 1968.[95] The act established a policy of preserving designated free-

[91] 43 U.S.C. §1782. BLM also has identified WSAs under other authorities, such as through its ongoing land planning process, and Congress has established some WSAs through statute on BLM, FWS, and FS lands.

[92] Forest Service, "Special Areas; Roadless Area Conservation; National Forest System Lands in Alaska," 86 *Federal Register* 68688, October 29, 2020.

[93] Wyoming v. Department of Agriculture, 133 S.Ct. 417 (2012). The Roadless Rule does not apply to Colorado or Idaho; roadless areas within the national forests within those states are subject to statewide regulations developed pursuant to the Administrative Procedures Act (P.L. 79-404).

[94] Forest Service, "Roadless Area Conservation; National Forest System Lands in Alaska," 83 *Federal Register* 169, August 30, 2018.

[95] P.L. 90-542; 16 U.S.C. §1271 et seq.

flowing rivers for the benefit and enjoyment of present and future generations. Under the act, the federal government cannot permit, fund, or otherwise assist projects that would cause specified negative impacts to a designated river's free flow or values. River units designated as part of the system are classified and administered as wild, scenic, or recreational rivers, based on the condition of the river, the amount of development in the river or on the shorelines, and the degree of accessibility by road or trail at the time of designation. The system contains both federal and nonfederal river segments. Typically, rivers are added to the system by an act of Congress, but may also be added by state nomination with the approval of the Secretary of the Interior. As of January 3, 2021, there are more than 200 river units with roughly 13,400 miles in 40 states and Puerto Rico, administered by all four FLMAs, or by state, local, or tribal governments.[96]

Designation and management of lands within river corridors has been controversial in some cases. Issues include concerns about private property rights and water rights within designated river corridors. Controversies have arisen over projects that were prohibited within a corridor, such as construction of major highway crossings, bridges, or other activities that were deemed to affect the flow or character of the designated river segment. The extent of local input in developing river management plans is another recurring issue.

The National Trails System Act of 1968 authorized a national system of trails, across federal and nonfederal lands, to provide additional outdoor recreation opportunities and to promote access to the outdoor areas and historic resources of the nation.[97] The system today consists of four types of trails and can be found in all 50 states, the District of Columbia, and Puerto Rico. This includes 11 national scenic trails and 19 national historic trails that cover roughly 66,000 miles.[98] In addition, almost 1,300 national recreation trails and 7 connecting-and-side trails have been established administratively as part of the system.[99] National trails are administered by NPS, FS, and BLM, in cooperation with appropriate state and local authorities. Most recreation uses are permitted, as are other uses or facilities that do not substantially interfere with the nature and purposes of the trail. Motorized vehicles are prohibited on many trails.

Ongoing issues for Congress include whether to designate additional trails, whether or how to balance trail designation with other potential land uses, what activities should be permitted on trails, and what portion of trail funding should be from federal versus nonfederal sources. Issues related to interagency trail management have also been the subject of congressional interest and litigation in recent years.[100] Some Members have expressed interest in new types of trails for the system, such as "national discovery trails," which would be interstate trails connecting representative examples of metropolitan, urban, rural, and backcountry regions.

[96] These figures were calculated by CRS using figures reported in legislative text and river management plans, as available, and reflect additions to the system added by as part of the Dingell Conservation Act (P.L. 116-9).

[97] P.L. 90-543; 16 U.S.C. §1241 et seq.

[98] Personal communication between CRS and NPS, April 11, 2019. According to NPS, these data are based on GIS analysis of centerline data for all 30 national scenic trails and national historic trails and are not reflective of legislative language designating the trails.

[99] Congress has, at times, designated national recreation trails (NRTs) through the legislative process. For example, P.L. 110-229 §102 established a 19.6 mile trail within Willamette National Forest as an NRT. However, the vast majority of the nearly 1,300 NRTs are established administratively.

[100] For example, in 2020, the U.S. Supreme Court ruled that the FS had the authority to grant a right-of-way for the construction of a natural gas pipeline to cross the Appalachian National Scenic Trail (NST) under the Mineral Leasing Act of 1920 (MLA) even though the overall administration of the Appalachian NST was delegated to NPS as a unit of the National Park System (see *United States Forest Serv. v. Cowpasture River Pres. Ass'n*, 140 S. Ct. 1837 (2020)).

CRS Products

CRS Report R45890, *Wild and Scenic Rivers: Designation, Management, and Funding*, by Anne A. Riddle

CRS Report R46369, *Section 7 of the Wild and Scenic Rivers Act: In Brief*, by Anne A. Riddle

CRS Report R43868, *The National Trails System: A Brief Overview*, by Mark K. DeSantis and Sandra L. Johnson

National Monuments and the Antiquities Act[101]

The Antiquities Act of 1906 authorizes the President to proclaim national monuments on federal lands that contain historic landmarks, historic and prehistoric structures, or other objects of natural, historic, or scientific interest.[102] The President is to reserve "the smallest area compatible with the proper care and management of the objects to be protected."[103] Seventeen of the 21 Presidents since 1906 have used this authority to establish, enlarge, diminish, or make other changes to proclaimed national monuments. Congress has modified many of these proclamations, abolished some monuments, and created monuments under its own authority.

Since the enactment of the Antiquities Act, presidential establishment and modification of monuments sometimes has been contentious. The Trump Administration proclaimed a new monument and reviewed and modified the boundaries and management of other proclaimed national monuments.[104] On January 20, 2021, President Biden issued an executive order calling for a review of monument boundaries and conditions changed by presidential proclamations issued during the Trump Administration.[105]

Congress continues to address the role of the President in proclaiming monuments. Some seek to impose restrictions on the President's authority to proclaim monuments. Among the bills considered in recent Congresses are those to block monuments from being declared in particular states; limit the size or duration of withdrawals; require the approval of Congress, the pertinent state legislature, or the pertinent governor before a monument could be proclaimed; or require the President to follow certain procedures prior to proclaiming a new monument.

Others promote the President's authority to act promptly to protect valuable resources on federal lands that may be vulnerable, and they note that Presidents of both parties have used the authority for over a century. They favor the Antiquities Act in its present form, asserting that the courts have upheld monument designations and that large segments of the public support monument designations for the recreational, preservation, and economic benefits that such designations can bring.

[101] For information specific to marine national monuments, see the section of this report entitled " National Marine Sanctuaries and Marine National Monuments."

[102] 54 U.S.C. §320301.

[103] 54 U.S.C. §320301(b).

[104] On December 5, 2017, DOI released a final report of the Secretary of the Interior on a review of certain national monuments. A link to the final report is in a DOI press release at https://www.doi.gov/pressreleases/secretary-zinke-recommends-keeping-federal-lands-federal-ownership-adding-three-new.

[105] "Executive Order on Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis," January 20, 2021.

CRS Products

CRS Report R41330, *National Monuments and the Antiquities Act*, by Carol Hardy Vincent

CRS Report R45718, *The Antiquities Act: History, Current Litigation, and Considerations for the 116th Congress*, coordinated by Erin H. Ward

National Marine Sanctuaries and Marine National Monuments[106]

The National Marine Sanctuaries Act (NMSA) authorizes the National Oceanic and Atmospheric Administration (NOAA) to designate specific areas for protection of their ecological, aesthetic, historical, cultural, scientific, or educational qualities.[107] The NOAA Office of National Marine Sanctuaries serves as the trustee for the 14 national marine sanctuaries (NMSs) designated under NMSA. Sanctuaries are located in waters under state or federal jurisdiction. Most NMSs are located in marine and coastal areas but exceptions include Thunder Bay NMS (Lake Huron) and Mallows Bay-Potomac River NMS. Sites are designated for specific reasons, such as protecting cultural artifacts (e.g., sunken vessels), particular species (e.g., humpback whales), or unique areas and entire ecosystems (e.g., Monterey Bay). On September 3, 2019, Mallows Bay-Potomac River, MD, become the most recent NMS designation.[108] The Wisconsin Shipwreck Coast NMS (Lake Michigan, WI) is under review for a future designation.[109]

The NMSA requires the development and implementation of management plans for each sanctuary, which provide the basis for managing or limiting incompatible activities. For most NMSs, questions related to developing or amending management plans have focused on identifying and limiting incompatible activities.

Five large marine national monuments have been designated by the President under the Antiquities Act, the most recent being the Northeast Canyons and Seamounts Marine National Monument in 2016,[110] the first designated in the Atlantic Ocean.[111] All five marine national monuments are managed cooperatively by DOI (FWS) and the Department of Commerce (NOAA).[112] Within the monuments, the removing, taking, harvesting, possessing, injuring, or damaging of monument resources is prohibited except as provided under regulated activities. Some designations have made exceptions for certain activities, such as recreational fishing and subsistence use, within certain marine national monuments. The Trump Administration modified

[106] For additional information on national monument designations, see the section of this report entitled "National Monuments and the Antiquities Act."

[107] 16 U.S.C. §1431 et seq.

[108] National Oceanic and Atmospheric Administration, "Community celebrates Mallows Bay-Potomac River National Marine Sanctuary," press release, November 2019, at https://sanctuaries.noaa.gov/news/nov19/community-celebrates-new-mallows-bay-potomac-river-national-marine-sanctuary.html.

[109] See NOAA, "Sanctuary Nomination Process," at https://www.nominate.noaa.gov/nominations/; and NOAA, "Sanctuary Designation Process," at https://sanctuaries.noaa.gov/management/designations.html.

[110] U.S. President (Barack Obama), "Proclamation 9496, Northeast Canyons and Seamounts Marine National Monument," 81 *Federal Register* 65161-65167, September 21, 2016.

[111] For more information on the Antiquities Act, see the section of this report entitled "National Monuments and the Antiquities Act."

[112] The Department of Defense, Department of State, American Samoa, State of Hawaii, and the Commonwealth of the Northern Mariana Islands are also management partners for some specific monuments.

an existing marine national monument designation by opening the monument to commercial fishing.[113]

One of the main differences between NMSs and marine national monuments is their designation process. While monuments are designated by presidential proclamation or through congressional legislation, the NMS designation process is an administrative action, requiring nomination, public scoping, public comment, and congressional and state review prior to the Secretary of Commerce's approval of the designation. Some stakeholders from extractive industries, such as the fishing industry, have voiced concerns that the national monument designation process does not provide opportunities to examine the tradeoffs between resource protection and resource use. On the other hand, some environmentalists have voiced concerns with the low number of NMS designations and what they see as inadequate protection of some sanctuary resources, such as fish populations. Some observers question whether the overriding purpose of the NMSA is to preserve and protect marine areas or to create multiple use management areas.[114] Most agree that the designation and management of national marine sanctuaries and marine national monuments will continue to inspire debate over the role of marine protected areas.

Range Management

Livestock Grazing

Management of federal rangelands, particularly by BLM and FS, presents an array of policy matters for Congress. Several issues pertain to livestock grazing. There is debate about the appropriate fee that should be charged for grazing private livestock on BLM and FS lands, including what criteria should prevail in setting the fee. Today, these federal agencies charge fees under a formula established by law in 1978, then continued indefinitely through an executive order issued by President Reagan in 1986.[115] The BLM and FS are generally charging a 2021 grazing fee of $1.35 per animal unit month (AUM) for grazing on their lands.[116] Conservation groups, among others, generally seek increased fees to recover program costs or approximate market value, whereas livestock producers who use federal lands generally want to keep fees low to sustain ranching and rural economies.

The BLM and FS issue to ranchers permits and/or leases that specify the terms and conditions for grazing on agency lands. Permits and leases generally cover a 10-year period and may be renewed. Congress has considered whether to extend the permit/lease length (e.g., to 20 years) to strengthen the predictability and continuity of operations. Longer permit terms have been opposed because they potentially reduce the opportunities to analyze the impact of grazing on lands and resources.

[113] Executive Office of the President, "Modifying the Northeast Canyons and Seamounts Marine National Monument," 85 *Federal Register* 35793-35795, June 5, 2020.

[114] William L. Chandler and Hannah Gillelan, "The History and Evolution of the National Marine Sanctuaries Act," *Environmental Law Reporter*, vol. 34 (2004), pp. 10506-10565.

[115] P.L. 95-514, 92 Stat. 1803; 43 U.S.C. §§1901, 1905. Executive Order 12548, 51 *Federal Register* 5985. February 19, 1986.

[116] This fee is in effect from March 1, 2021, through February 28, 2022. The agencies also charged the same fee for 2020, which fee year ends February 28, 2021. BLM defines an AUM, for fee purposes, as a month's use and occupancy of the range by one animal unit, which includes one yearling, one cow and her calf, one horse, or five sheep or goats. The FS uses head-month (HD-MO) as its measurement for use and occupancy of FS lands. AUM is used in this report to cover both HD-MO and AUM.

The effect of livestock grazing on rangelands has been part of an ongoing debate on the health and productivity of rangelands. Due to concerns about the impact of grazing on rangelands, some recent measures would restrict or eliminate grazing, for instance, through voluntary retirement of permits and leases and subsequent closure of the allotments to grazing. These efforts are opposed by those who assert that ranching can benefit rangelands and who support ranching on federal lands for not only environmental but lifestyle and economic reasons. Another focus of the discussion on range health and productivity is the spread of invasive and noxious weeds. (See "Invasive Species" section, below.)

Wild Horses and Burros

There is continued congressional interest in management of wild horses and burros, which are protected on BLM and FS lands under the Wild Free-Roaming Horses and Burros Act of 1971.[117] Under the act, the agencies inventory horse and burro populations on their lands to determine appropriate management levels (AMLs). Most of the animals are on BLM lands, although both BLM and FS have populations exceeding their national AMLs. BLM estimates the maximum AML at 26,770 wild horses and burros, and it estimates population on the range at 95,114.[118] Furthermore, off the range, BLM provides funds to care for 53,477 additional wild horses and burros in short-term corrals, long-term (pasture) holding facilities, and ecosanctuaries.[119] FS estimates AML at about 2,300 and population at about 8,400 wild horses and burros for lands managed by the agency.[120]

The agencies are statutorily authorized to remove excess animals from the range and in practice use a variety of methods to meet AML. This includes programs to adopt and sell animals, to care for animals off-range, to administer fertility control, and to establish ecosanctuaries. Questions for Congress include the sufficiency of these authorities and programs for managing wild horses and burros. Another controversial question is whether the agencies should humanely destroy excess animals, as required under the 1971 law, or whether Congress may continue to prohibit the agencies from using funds to slaughter healthy animals.[121] Additional topics of discussion center on the costs of management, particularly the relatively high cost of caring for animals off-range.[122] Other options focus on keeping animals on the range, such as by expanding areas for herds and/or changing the method for determining AML.

CRS Products

CRS Report RS21232, *Grazing Fees: Overview and Issues*, by Carol Hardy Vincent

CRS In Focus IF11060, *Wild Horse and Burro Management: Overview of Costs*, by Carol Hardy Vincent

[117] 16 U.S.C. §§1331 et seq.

[118] These figures are current as of March 1, 2020. See BLM, *Latest On-Range Population Estimates*, at https://www.blm.gov/programs/wild-horse-and-burro/about-the-program/program-data.

[119] BLM, *Populations of Wild Horses and Burros in BLM's Off-Range Facilities (as of December 2020)*, at https://www.blm.gov/programs/wild-horse-and-burro/about-the-program/program-data.

[120] This estimate was provided to CRS by the FS and reflects animals on FS lands in 2020.

[121] See, for example, the prohibition on FY2021 funding in the Consolidated Appropriations Act, 2021 (P.L. 116-260, Division G, §419).

[122] For example, in FY2019, about two-thirds of BLM's overall expenditures for wild horses and burros were used to care for animals off-range.

Recreation

The abundance and diversity of recreational uses of federal lands and waters have increased the challenge of balancing different types of recreation with each other and with other land uses. One issue is how—or whether—fees should be collected for recreational activities on federal lands. The Federal Lands Recreation Enhancement Act (FLREA) established a recreation fee program for the four FLMAs and the Bureau of Reclamation.[123] The authorization has been extended by a series of laws and currently ends on October 1, 2022.[124] FLREA authorizes the agencies to charge, collect, and spend fees for recreation on their lands, with most of the money remaining at the collecting site. The 117th Congress faces issues including whether to let lapse, extend, make permanent, or amend the program. Current oversight issues for Congress relate to various aspects of agency implementation of the fee program, including the determination of fee changes, use of collected revenue, and pace of obligation of fee collections. Supporters of the program contend that it sets fair and similar fees among agencies and keeps most fees on-site for improvements that visitors desire. Some support new or increased fees or full extension of the program to other agencies, especially the U.S. Army Corps of Engineers. Among critics, some oppose recreation fees in general. Others assert that fees are appropriate for fewer agencies or types of lands, that the fee structure should be simplified, or that more of the fees should be used to reduce agency maintenance backlogs.

Other issues are specific to commercial guides and outfitters operating on federal lands. A focus is whether and how to modify the permitting framework under which guides and outfitters generally obtain permits to operate. Some stakeholders view the differing policies across the four FLMAs as an administrative and financial hindrance, particularly to small businesses and entities whose operations cross multiple federal jurisdictions. Others view fostering guide and outfitter operations through permit adjustments as potentially detrimental to noncommercial visitor use. Issues include whether to establish multi-jurisdictional permits, adjust permit fees and cost-recovery calculations, or modify various procedural requirements, such as those required by the National Environmental Policy Act.[125]

Access to opportunities on federal lands for hunting, fishing, and recreational shooting (e.g., at shooting ranges) is of perennial interest to Congress. Hunting and fishing are allowed on the majority of federal lands, but some contend they are unnecessarily restricted by protective designations, barriers to physical access, and agency planning processes. Others question whether opening more FLMA lands to hunting, fishing, and recreational shooting is fully consistent with good game management, public safety, other recreational uses, resource management, and the statutory purposes of certain lands. Other issues for Congress include whether or how to balance hunting and fishing against other uses and the extent to which lead in hunting ammunition and fishing tackle should be regulated.

Another contentious issue is the use of off-highway vehicles (OHVs)—all-terrain vehicles, snowmobiles, personal watercraft, and others—on federal lands and waters. OHV use is a popular recreational activity on BLM and FS land, while NPS and FWS have fewer lands allowing them. OHV supporters contend that the vehicles facilitate visitor access to hard-to-reach natural areas and bring economic benefits to communities serving riders. Critics raise concerns about disturbance of nonmotorized recreation and potential damage to wildlife habitat and ecosystems.

[123] Federal Lands Recreation Enhancement Act (FLREA; P.L. 108-447), 16 U.S.C. §§6801-6814.

[124] The most recent extension was provided in P.L. 116-260.

[125] 42 U.S.C. §§4321 et seq. For more information on the National Environmental Policy Act, see CRS Report RL33152, *The National Environmental Policy Act (NEPA): Background and Implementation*, by Linda Luther.

Issues for Congress include broad questions of OHV access and management, as well as OHV use at individual parks, forests, conservation areas, and other federal sites.

CRS Products

CRS In Focus IF10151, *Federal Lands Recreation Enhancement Act: Overview and Issues*, by Carol Hardy Vincent

CRS Report R45103, *Hunting and Fishing on Federal Lands and Waters: Overview and Issues for Congress*, by R. Eliot Crafton

CRS Report R46380, *Guides and Outfitters on Federal Lands: Background and Permitting Processes*, by Mark K. DeSantis

CRS Report R46381, *Guides and Outfitters on Federal Lands: Issues and Legislation in the 116th Congress in Brief*, by Mark K. DeSantis

Species Management

Each FLMA has a responsibility to manage the plant and animal resources under its purview. An agency's responsibilities may be based on widely applicable statutes or directives, including the Endangered Species Act, the Migratory Bird Treaty Act, the Fish and Wildlife Coordination Act, executive orders, and other regulations. Species management could also be based on authorities specific to each FLMA, such as the National Wildlife Refuge System Administration Act. In addition, each FLMA must work closely with state authorities to address species management issues.

In the case of the National Wildlife Refuge System (administered by FWS), the conservation of plants and animals is the mission of the system, and other uses are allowed to the extent they are compatible with that mission and any specific purposes of an individual system unit.[126] While most refuges are open for public enjoyment, some refuges or parts of refuges (such as island seabird colonies) might be closed to visitors to preserve natural resources. For the National Park System, resource conservation (including wildlife resources) is part of the National Park Service's dual mission, shared with the other goal of public enjoyment.[127] The FS and BLM have *multiple use* missions, with species management being one of several agency responsibilities.[128]

The federal land management agencies do not exercise their wildlife authorities alone. Often, Congress has directed federal agencies to share management of their wildlife resources with state agencies.[129] For example, where game species are found on federal land and hunting or fishing is generally allowed on that land, federal agencies work with states on wildlife censuses and

[126] National Wildlife Refuge System Administration Act of 1966, as amended, 16 U.S.C. §668dd et seq. Preexisting rights that were not acquired (e.g., in a split estate where FWS acquires surface rights but not mineral rights) may also affect what may occur on FWS lands.

[127] 54 U.S.C. §100101.

[128] For BLM, see 16 U.S.C. §§1701-1702. For FS, see 16 U.S.C. §§528-531.

[129] For example, the National Wildlife Refuge System Administration Act states "Nothing in this Act shall be construed as affecting the authority, jurisdiction, or responsibility of the several States to manage, control, or regulate fish and resident wildlife under State law or regulations in any area within the System. Regulations permitting hunting or fishing of fish and resident wildlife within the System shall be, to the extent practicable, consistent with State fish and wildlife laws, regulations, and management plans" (16 U.S.C. §668dd(m)).

typically require appropriate state licenses to hunt and fish on the federal lands.[130] In addition, federal agencies often cooperate with states to enhance wildlife habitat for the benefit of both jurisdictions.

The four FLMAs do not consistently report specific data on how many acres of land are open to hunting, fishing, and recreational shooting. However, both BLM and FS are generally required to open lands under their administration to hunting, fishing, and recreational shooting, subject to any existing and applicable law, unless the respective Secretary specifically closes an area.[131] Both agencies estimate that nearly all of their lands are open to these activities.[132] FWS is required to report the number of refuges open to hunting and fishing as well as the acreage available for hunting on an annual basis.[133] As of FY2018, there were 278 refuges open to fishing and 340 refuges open to hunting, providing access to 86 million acres for these activities.[134] Congress frequently considers species management issues, such as balancing land and resources use, providing access to hunting and fishing on federal lands, and implementing endangered species protections.

Endangered Species

The protection of endangered and threatened species—under the 1973 Endangered Species Act (ESA)—can be controversial due to balancing the needs for natural resources use and development and species protection.[135] Under the ESA, all federal agencies must "utilize their authorities in furtherance of the purposes of this Act by carrying out programs for the conservation of endangered species and threatened species listed pursuant to … this Act."[136] As a result, the FLMAs generally consider species listed as threatened or endangered in their land management plans, timber sales, energy or mineral leasing plans, and all other relevant aspects of their activities that might affect listed species. They consult with FWS (or NMFS, for most marine species and for anadromous fish such as salmon) about those effects.

Congress has considered altering ESA implementation in various ways. For example, bills introduced in previous Congresses would have modified the process for listing a species, defined the types of data used to evaluate species, amended the relationship between states and the federal government under the ESA, and changed the types of species that can be listed under ESA, among others. Debate has also centered on certain listed and proposed species, particularly where

[130] While state licenses are generally required to hunt and fish on federal lands, there are some exceptions. For example, select NPS units do not require state licenses for fishing.

[131] This requirement was added by the Dingell Conservation Act (P.L. 116-9, §4102). However, the requirement is prospective and does not retroactively open any lands that are closed as of the date of enactment (February 26, 2019). P.L. 116-9, §4103 outlines the required procedures for closing lands to these activities.

[132] BLM estimates that 99% of its lands are open to hunting, fishing and recreational shooting (BLM, *Recreation Programs*, https://www.blm.gov/programs/recreation/recreation-programs/recreational-shooting). FS estimates that 99% of its lands are open to hunting, and at least 99% of FS administered rivers, streams, and lakes are open to fishing (personal communication between CRS and FS, February, 2018). For more information on hunting and fishing on federal lands, see CRS Report R45103, *Hunting and Fishing on Federal Lands and Waters: Overview and Issues for Congress*, by R. Eliot Crafton.

[133] P.L. 113-264 amended the Migratory Bird Hunting and Conservation Stamp Act (16 U.S.C. §718d) to mandate that the FWS annually publishes the number of acres open to hunting and fishing within the NWRS.

[134] FWS, *FY2018 Status of Hunting and Fishing on National Wildlife Refuge System Land*, at https://www.fws.gov/refuges/realty/pdf/2018_Hunting_Status.pdf. The numbers provided herein do not include hunting and fishing opportunities in wetland management districts that are also part of the NWRS.

[135] P.L. 93-205, as amended; 16 U.S.C. §§1531-1543.

[136] 16 U.S.C. §1536(a).

conservation of species may potentially be in conflict with other resource use. Examples of such species include sage grouse (energy and other resources in sage brush habitat), gray wolves (ranching), and polar bears (energy development in northern Alaska), among others. Proposals aimed at addressing these potential conflicts include granting greater authority to states over whether a species may be listed, changing the listing status of a species, and creating special conditions for the treatment of a listed species. Congress may also consider administrative changes that have been made related to the implementation of the ESA.[137]

CRS Products

CRS Report R46677, *The Endangered Species Act: Overview and Implementation*, by Pervaze A. Sheikh, Erin H. Ward, and R. Eliot Crafton

CRS Report RL32992, *The Endangered Species Act and "Sound Science"*, by Pervaze A. Sheikh

CRS Report R40787, *Endangered Species Act (ESA): The Exemption Process*, by Pervaze A. Sheikh

CRS In Focus IF11241, *The Legal Framework of the Endangered Species Act (ESA)*, by Erin H. Ward

CRS Report R46184, *The Gray Wolf Under the Endangered Species Act (ESA): A Case Study in Listing and Delisting Challenges*, by Erin H. Ward

CRS Report R45926, *The Endangered Species Act and Climate Change: Selected Legal Issues*, by Linda Tsang

Invasive Species

While habitat loss is a major factor in the decline of species, invasive species have long been considered the second-most-important factor.[138] Invasive species—nonnative or alien species that cause or are likely to cause harm to the environment, the economy, or human health upon introduction, establishment, and spread—have the potential to affect habitats and people across the United States and U.S. territories, including on federal lands and waters.[139] For example, gypsy moths and hemlock wooly adelgid have been a pest in many eastern national forests as well as Shenandoah National Park. A fungus causing white-nose syndrome has caused widespread mortality in bat populations in the central and eastern states—and was recently identified in western states—including those in caves on national park and national forest lands. Burmese

[137] See for example, DOI, FWS, "Endangered and Threatened Wildlife and Plants; Regulations for Designating Critical Habitat," 85 *Federal Register* 82376, December 18, 2020; DOI, FWS, and Department of Commerce (DOC), NOAA, "Endangered and Threatened Wildlife and Plants; Regulations for Listing Endangered and Threatened Species and Designating Critical Habitat," 85 *Federal Register* 81411, December 16, 2020; DOI, FWS, and DOC, NOAA, "Endangered and Threatened Wildlife and Plants; Regulations for Listing Species and Designating Critical Habitat," 84 *Federal Register* 45020, August 27, 2019; DOI, FWS, and DOC, NOAA, "Endangered and Threatened Wildlife and Plants; Regulations for Interagency Cooperation," 84 *Federal Register* 44976, August 27, 2019; and DOI, FWS, "Endangered and Threatened Wildlife and Plants; Regulations for Prohibitions to Threatened Wildlife and Plants," 84 *Federal Register* 44753, August 27, 2019.

[138] For example, see Randy G. Westbrooks, *Invasive Plants: Changing the Landscape of America*, Federal Interagency Committee for the Management of Noxious and Invasive Weeds, Washington, DC, 1998, p. 5.

[139] The introduction and spread of invasive species also can result in economic impacts, with potential related costs estimated by some as exceeding $100 billion per year. For example, see David Pimentel, Rodolfo Zuniga, and Doug Morrison, "Update on the Environmental and Economic Costs Associated with Alien-invasive Species in the United States," *Ecological Economics*, vol. 52, no. 3 (February 15, 2005), pp. 273-288.

pythons prey on native species of birds, mammals, and reptiles in south Florida, including in the Everglades National Park. Many stakeholders believe the most effective way to deal with invasive species is to prevent their introduction and spread. For species already introduced, finding effective management approaches is important, though potentially difficult or controversial. Control efforts can be complex and expensive, and may require collaboration and coordination between multiple stakeholders.

Addressing invasive species is a responsibility shared by several federal agencies, in addition to the FLMAs.[140] These agencies are required to plan and carry out control activities and to develop strategic plans to implement such activities.[141] Control activities are required to manage invasive populations, prevent or inhibit the introduction and spread of invasive species, and to restore impacted areas. Further, by law, agencies must consider both ecological and economic aspects in developing their strategic plans and implementing control activities, and they must coordinate with state, local, and tribal representatives. The introduction and spread of invasive species as well as the impacts that arise from these species is of perennial interest to Congress.

CRS Product

CRS Report R43258, *Invasive Species: Major Laws and the Role of Selected Federal Agencies*, by Renée Johnson, R. Eliot Crafton, and Harold F. Upton

CRS In Focus IF11011, *Invasive Species: A Brief Overview*, by R. Eliot Crafton and Sahar Angadjivand

Tribal Lands and Resources Management

Indian tribes have a unique relationship with the federal government. One aspect of this special relationship is the doctrine of the *federal trust responsibility*: a legal obligation under which the United States, through treaties, acts of Congress, and court decisions, "has charged itself with moral obligations of the highest responsibility and trust" toward Indian tribes.[142] The federal trust responsibility can include a duty on the part of the United States to protect treaty rights, lands, assets, and resources on behalf of tribes and tribal members.[143] This unique relationship highlights a key difference between the federal management of tribal lands from the management of the lands under the jurisdiction of the FLMAs.

The BIA is the lead agency responsible for the administration and management of land and resources the United States holds in trust for Indian tribes and individual tribal members and land subject to a restriction against alienation (sale or transfer).[144] With a few exceptions, the BIA's approval is required for leases and agreements to develop tribal lands and resources. For example,

[140] Dingell Conservation Act (P.L. 116-9, §7001) adds a general authority and requirement for the FLMAs, BIA, and the Bureau of Reclamation (also in DOI), and the Army Corps of Engineers to address invasive species on the lands in their jurisdiction. Other statutes address management of specific species groups (for example, noxious weeds; 7 U.S.C. §2814 and 7 U.S.C. §§7781-7786) or habitats (for example, aquatic habitats; 16 U.S.C. §§4701-4751). In addition, addressing invasive species has also been considered through administrative mechanisms, including executive orders (for example, Executive Order 13112, "Invasive Species," 64 *Federal Register* 6183, February 8, 1999).

[141] P.L. 116-9, §7001.

[142] Seminole Nation v. U.S., 316 U.S. 286, 296-297 (1942). For a general overview of the trust relationship, see U.S. v. Jicarilla Apache Nation, 564 U.S. 162 (2011).

[143] DOI, BIA, "Frequently Asked Questions," at https://www.bia.gov/frequently-asked-questions.

[144] DOI, BIA, "About Us," at https://www.bia.gov/about-us.

with respect to energy resource development, some of the BIA's actions and decisions include reviewing and approving surface and subsurface leases, drilling permits, rights-of-way, cultural resources surveys, and environmental studies and surveys.[145]

Tribal lands may have different designations and ownership statuses. Common types of land statuses the BIA is responsible for managing include *trust* and *restricted fee land*. Trust lands are lands to which the United States holds title for the benefit of a tribe or an individual tribal member.[146] Restricted fee lands are lands owned by a tribe or a tribal member that are subject to a restriction against alienation or encumbrance (i.e., lien, leases, etc.).[147] Tribal members hold trust or restricted fee parcels in the form of *allotments*.[148] For some purposes, Congress has defined tribal lands to include both trust and restricted fee lands, such as for leasing Indian agricultural lands, rights-of-way, and Indian energy.[149] However, DOI may have certain land management responsibilities to trust lands, due to its federal trust responsibility, but those responsibilities may not pertain to restricted fee lands.[150]

Land can become trust land through a process known as the *land-into-trust*, or *fee-to-trust*, process. This can be done administratively, through the Secretary of the Interior, or Congress can mandate land be brought into trust for a tribe.[151] Notably, a 2009 Supreme Court case, *Carcieri v. Salazar,* decided that only tribes that were federally recognized under the IRA prior to 1934 could petition to reserve land in trust.[152] On January 20, 2021, President Biden issued a list of agency actions under review, which includes *Carcieri* guidance issued by DOI's Office of the Solicitor during the Trump Administration.[153]

Land ownership statuses and the federal-tribal trust relationship can pose unique challenges for Congress to consider when deliberating tribal land and resource management policies. Some of these issues relate to situations when the Secretary's approval is required to encumber trust or restricted lands.[154] Other issues include the administration of allotted lands and reducing *fractionation*, meaning there could be many landowners—sometimes hundreds—on one parcel of

[145] GAO, *Indian Energy Development: Poor Management by BIA Has Hindered Energy Development on Indian Lands,* GAO-15-502, June 8, 2015, p. 4. Other federal agencies, such as BLM, play key roles in energy development on tribal lands. DOI, BIA, Office of Indian Energy and Economic Development, "Working on Indian Lands," at https://www.indianaffairs.gov/as-ia/ieed/division-energy-and-mineral-development/working-indian-lands.

[146] 25 C.F.R. §151.2(d), 25 C.F.R. §169.2; see also Nell Jessup Newton, ed., *Cohen's Handbook of Federal Indian Law, 2012 Edition*, 2017, §15.03 (hereinafter, Newton, *Cohen's Handbook*).

[147] 25 C.F.R. §§151.2(e), 152.1(c); see also DOI, Solicitor's Opinion M-37023, "Applicability of 25 U.S.C. § 2719 to Restricted Fee Lands," January 18, 2009, at https://www.doi.gov/solicitor/opinions. Hereinafter, M-Opinion 37023.

[148] Newton, *Cohen's Handbook*, §16.03.

[149] For leasing of Indian agricultural lands, see 25 U.S.C. §3703. For rights-of-way, see 25 U.S.C. §323. For Indian energy, see 25 U.S.C. §3501.

[150] M-Opinion 37023, pp. 3-4, 6.

[151] The Indian Reorganization Act of 1934 (IRA) authorizes the Secretary of the Interior to bring land into trust on behalf of tribes (25 U.S.C. §5108). See P.L. 116-92, §2870, for an example of Congress mandating a legislative land-into-trust process.

[152] Carcieri v. Salazar, 555 U.S. 379 (2009). For more information on this court case, see CRS Report RL34521, *Carcieri v. Salazar: The Secretary of the Interior May Not Acquire Trust Land for the Narragansett Indian Tribe Under 25 U.S.C. Section 465 Because That Statute Applies to Tribes "Under Federal Jurisdiction" in 1934*, by M. Maureen Murphy.

[153] White House, "Fact Sheet: List of Agency Actions for Review," January 20, 2021.

[154] The Secretary's approval is required, with some exceptions, to encumber lands held in trust or restricted fee status, such as for leasing and rights-of-way. For example, see 25 C.F.R. Part 162 (leases and permits), 25 C.F.R. Part 169 (rights-of-way).

land. The administration of the land-into-trust process also raises several potential issues for Congress. These issues include funding and timeliness concerns, considerations for bringing off-reservation parcels into trust, and the impacts of the Supreme Court's *Carcieri* decision.

CRS Products

CRS Report R46647, *Tribal Land and Ownership Statuses: Overview and Selected Issues for Congress*, by Tana Fitzpatrick

CRS Report R46446, *Tribal Energy Resource Agreements (TERAs): Approval Process and Selected Issues for Congress*, by Tana Fitzpatrick

Wildfire Management

Wildfire is a concern because it can lead to loss of human life, damage communities and timber resources, and affect soils, watersheds, water quality, and wildlife.[155] Management of wildfire—an unplanned and unwanted fire—includes preparedness, suppression, fuel reduction, site rehabilitation, and more.[156] From FY2011 through FY2020, there were an average of 62,693 wildfires annually and an average of 7.5 million acres impacted annually. A record-setting 10.3 million acres were impacted by wildfire in 2020.[157]

The federal government is responsible for managing wildfires that begin on federal land and for coordinating multi-jurisdictional response activities with state and local governments as needed. Federal responsibility for wildfire suppression is intended to protect lives, property, and resources on federal lands. Federal wildfire policy is to evaluate the risks to firefighter and public safety and welfare—and to natural, ecological, and cultural values to be protected—to determine the appropriate response to wildfire. Depending on the risk assessment, the federal response may range from active suppression to monitoring, as supported by the area's land and resource management plans.

Legislative issues for Congress include consideration of the federal roles and responsibilities for wildfire protection, response, damages, and recovery. This includes issues related to the federal government's ability to recruit and retain firefighters; the age, extent, and effectiveness of the aviation fleet; and the use of new technologies for wildfire detection and response, such as unmanned aircrafts, among others. Another issue is the impact of the expanding *wildland-urban interface* (WUI), which is the area where structures (usually homes) are intermingled with or

[155] Wildfires can also have beneficial impacts on some ecosystems. The terms *wildland fire* and *wildfire* often are used interchangeably, although each term has a distinct definition. The National Wildfire Coordinating Group (NWCG) defines *wildland fire* as any nonstructure fire that occurs in vegetation or natural fuels, including prescribed fire and wildfire. NWCG defines *wildfire* as an unplanned, unwanted wildland fire, including unauthorized human-caused fires, escaped prescribed fire projects, and all other wildland fires where the objective is to put out the fire. See NWCG, "Glossary of Wildland Fire Terminology," September 2020, at https://www.nwcg.gov/glossary/a-z.

[156] Preparedness is the range of tasks necessary to build, sustain, and improve the capability to protect against, respond to, and recover from wildfire incidents. Suppression is the work associated with extinguishing or confining a fire. Fuel reduction is manipulation, including combustion, or removal of fuels to reduce the likelihood of ignition and/or to lessen potential damage and resistance to control. Site rehabilitation is efforts undertaken generally within three years of a wildfire to repair or improve fire-damaged lands unlikely to recover to a management-approved condition, or to repair or replace minor facilities damaged by fire.

[157] Historical fire statistics were first reported in 1960. National Interagency Fire Center, *Total Wildland Fires and Acres (1960-2017)*, at http://www.nifc.gov/fireInfo/fireInfo_stats_totalFires.html.

adjacent to vegetated wildlands (forests or rangelands).[158] The proximity to vegetated landscapes puts these areas at a potential risk of experiencing wildfires and associated damage. As such, additional issues for Congress include oversight of the agencies' fire management activities and other wildland management practices that have altered fuel loads over time, as well as consideration of programs and processes for reducing fuel loads and mitigating wildfire risk to communities near or adjacent to federal lands.

Funding also is a perennial concern, particularly for suppression purposes, an activity for which costs are generally rising but vary annually and are difficult to predict. Both FS and DOI generally receive annual discretionary appropriations for wildfire management activities through the Interior, Environment, and Related Agencies appropriations bills.[159] Funding for wildland fire management—including supplemental appropriations—averaged $4.5 billion annually over the last 10 years (FY2011 through FY2020).[160] Starting in FY2020, Congress is authorized to appropriate funding for suppression purposes pursuant to the *wildfire adjustment*, a budgetary mechanism that allows Congress to effectively provide additional funding for wildfire suppression outside of discretionary spending limits, subject to certain conditions.[161] The wildfire adjustment is available annually from FY2020 through FY2027, although the statutory limits for discretionary spending currently—at the time of this report—are in effect only through FY2021.

CRS Products

CRS In Focus IF10244, *Wildfire Statistics*, by Katie Hoover

CRS In Focus IF10732, *Federal Assistance for Wildfire Response and Recovery*, by Katie Hoover

CRS Report R46583, *Federal Wildfire Management: Ten-Year Funding Trends and Issues (FY2011-FY2020)*, by Katie Hoover

CRS In Focus IF11675, *Wildfire Management Funding: FY2021 Appropriations*, by Katie Hoover

COVID-19 Issues

During the COVID-19 pandemic, the FLMAs, BIA, and BOEM have experienced varying degrees of disruption to the continuity of agency operations and activities on their lands and in the programs they administer. The duration, scope, and scale of potential impacts are not yet fully known. As one example, it is possible that some reductions in activities and services could have resulted in less revenue generated on federal lands in FY2020 as compared with previous years (and that such reductions might continue through the duration of the pandemic). Revenue reductions could affect the FLMAs and the federal government broadly in a variety of ways, such as through decreased deposits in special accounts to offset certain agency programs or

[158] C. Radeloff et al., "The Wildland-Urban Interface in the United States," *Ecological Applications*, vol. 15, no. 3 (2005), pp. 799-805.

[159] Wildfire management funding for DOI is provided to the Office of Wildland Fire (a department-level office), which then allocates the funding to BIA, BLM, FWS, and NPS.

[160] Funding for federal wildfire management is generally provided through the Interior, Environment and Related Agencies appropriations bill. Figures reported in inflation-adjusted constant FY2020 dollars.

[161] The wildfire adjustment is also sometimes referred to as the *wildfire funding fix* or the *suppression cap adjustment*. The discretionary spending limit refers to certain procedural and budgetary controls over discretionary spending for each of the fiscal years between FY2012 and FY2021, as established by the Budget Control Act of 2011 (BCA; P.L. 112-25). For more information on discretionary spending limits, see CRS Report R44874, *The Budget Control Act: Frequently Asked Questions*, by Grant A. Driessen and Megan S. Lynch.

implications for revenue-sharing payments to states or local governments. More broadly, the general public, communities near federal lands, and businesses and industries that use or purchase resources from federal lands could feel the effects of such a decrease in activity or revenue.

In addition, the COVID-19 pandemic had and may continue to have impacts to various agency operations. For example, FS and DOI altered wildfire response operations and procedures for the 2020 wildfire season. This is because wildland fire response typically involves activities and conditions that can facilitate the transmission of infectious diseases, such as COVID-19.[162] For instance, wildland firefighters and other support personnel work and live in close proximity to each other during an active fire, and fire crews often travel to and from different states over the course of a fire season. To address these challenges, the agencies developed regionally specific interagency protocols for maintaining a continuity of response and resource availability while providing for the safety and protection of response personnel.[163]

The COVID-19 pandemic raises potential issues for Congress related to federal lands. These issues include whether to counteract any decreases in revenues, payments, or funding or provide for additional flexibilities or direct relief for entities that operate on federal lands or purchase federal resources. Other issues include the adequacy of agency procedural adaptations and whether to provide additional resources—including personal protective equipment—to agency personnel.

CRS Products

CRS Report R46448, *Effect of COVID-19 on Federal Land Revenues*, coordinated by Carol Hardy Vincent and Katie Hoover

CRS In Focus IF11649, *Federal Offshore Oil and Gas Revenues During the COVID-19 Pandemic*, by Laura B. Comay

[162] In addition, exposure to wildfire smoke may increase the occurrence or seriousness of respiratory infections, such as those caused by COVID-19. More information on wildland firefighters and COVID risk is available at CDC, "FAQs and Communication Resources for Wildland Firefighters," last updated January 5, 2021, at https://www.cdc.gov/coronavirus/2019-ncov/community/wildland-firefighters-faq.html.

[163] For more information on the COVID-19 wildfire response protocols, see the COVID-19 page at National Interagency Fire Center, at https://www.nifc.gov/fireInfo/covid-19.htm.

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