

CRS Report for Congress

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Natural Resources: Selected Issues for the 109th Congress

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Summary

The 109th Congress is considering natural resource management issues involving how the federal government should balance multiple uses and invest in resource development and protection. These issues affect local communities, industries, ecosystems, and the nation. This report introduces 30 key policy issues in five broad categories that the 109th Congress is addressing or may address through authorizations, appropriations, or oversight. While this report will be updated occasionally, many of the cited CRS products are updated more frequently.

Certain themes are common to consideration of many natural resource questions. Many conflicts center on balancing resource use and protection. Other common themes are the desirability of current versus alternative uses and protection programs, whether resources should be managed to produce national or local benefits, and how to balance current uses with future supplies and opportunities. Other questions involve the effect of federal resource management on privately owned lands and the role of scientific data in natural resource decision making.

Federal lands questions before the 109th Congress include how much and which land the government should own, how to prioritize uses (e.g., grazing, timber, habitat, recreation), who should manage federal lands, and whether to designate additional special areas. There are financial questions as well, such as whether and how to collect or change fees for land uses and to dispose of collected funds.

On ocean resources, the 109th Congress is considering recommendations by two commissions for a more coordinated ocean policy and reorganization of the National Oceanic and Atmospheric Administration. Congress also is debating reauthorization of fisheries, marine mammal, and coastal zone management legislation, and the Senate may address the U.N. Convention on the Law of the Sea.

Federal species management and ecosystem protection are receiving much attention during the 109th Congress. Topics include whether to amend the Endangered Species Act, develop legislation to prevent or respond to invasive species, alter protection of international species, and expand or curtail specific large-scale ecosystem restoration and wetlands protection efforts.

Increased competition for water has fostered interest in the federal role in water resources, particularly for water supply and river management. The 109th Congress is considering transboundary water resource management, and assistance for rural water supply, water reclamation and reuse, and aging dams.

The 109th Congress is debating an array of other natural resource policy issues. They include whether to expand availability of federal lands for development of energy and mineral resources, and whether to alter the federal role in natural disaster mitigation. Questions on federal involvement in managing natural resources on private and Indian lands and tribal uses of non-Indian resources also are ongoing.

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Natural Resources: Selected Issues for the 109th Congress

Introduction

Decisions on how to develop, manage, and protect the nation's natural resources have economic, social, and environmental implications. Some impacts are local, others are national or international. This report briefly discusses selected natural resource issues that the 109th Congress is addressing or may consider through oversight, authorizations, or appropriations. This report will be updated occasionally; however, it lists some related CRS products that provide more detailed information. For a complete listing of CRS products on natural resource issues, see the CRS web page at [<http://www.crs.gov/products/browse/is-environment.shtml>].

This report introduces 30 natural resource issues, many of which are complex and interrelated. Some discussions are site- or agency-specific, such as the entry on the Army Corps of Engineers, while others are national or international in scope, such as the section on "Assessing Ocean Policy." The 30 issues have been grouped into five categories, including a miscellaneous "Other" category, as follows:

- Federal Lands and Resources
- Ocean Affairs and Earth Sciences
- Species Management and Ecosystem Protection
- Water Resources
- Other

Certain themes are prevalent during consideration of many resource questions. Common themes include the desirability of current versus alternative uses and protection programs, whether resources should be managed to produce national or local benefits, and how to balance current uses with future supplies and opportunities. Conflicting views reflect different values, needs, and perceptions of the condition of resources and the sustainability of uses. A related debate is over whether natural resources should be managed primarily to produce national benefits or to benefit the localities and states in which they are located.

Who decides how natural resources should be managed and how the decisions are made also have been topics of discussion. Some stakeholders seek to maintain or enhance the federal role in resource management. Others support more local influence or international decision-making in some cases. Conflicts over natural resources in the United States perhaps have intensified as a result of pressures from overall population growth and economic development nationally and worldwide. Another theme in resource discussions is the role of science in multiple areas, such as determining the health and availability of resources and the extent and impact of changing resource conditions. The 109th Congress is weighing whether federal funds

for natural resources issues are adequate and focused on the appropriate resource priorities.

Congress deals with natural resource issues on a number of fronts. Key laws, programs, and issues are handled by several authorizing committees in the House and Senate. Many issues involve several committees, such as those involving wetlands protection and restoration. In addition, natural resource issues often are addressed during consideration of annual appropriations bills for natural resource agencies, programs, and activities.¹ In many cases, natural resource issues do not divide along clear party lines. Instead, they may be split along rural-urban, eastern-western, coastal-interior, or upstream-downstream interests.

A number of the natural resources issues in this report are intertwined with issues in other policy areas. For example, relationships between natural resources management and environmental protection are evident in many issues, such as groundwater contamination's effect on rural water supply. (For information on environmental quality and protection issues, see CRS Issue Brief IB10146, *Environmental Protection Issues in the 109th Congress*, coordinated by Susan Fletcher and Margaret Isler.) Cross-cutting issues are included in this report if the congressional concern revolves principally around resource conditions and supply.

Similarly, debates on energy policy encompass questions of access to energy resources and the impact of energy production on lands and resources. While a few energy resource issues are covered in this report, information on energy policy broadly is contained in CRS Report RL33302, *Energy Policy Act of 2005: Summary and Analysis of Enacted Provisions*, coordinated by Mark Holt and Carol Glover. Many natural resource issues, especially ones dealing with resource conditions and uses on private lands, overlap with agricultural topics. For information on federal conservation programs for agricultural lands, see CRS Issue Brief IB96030, *Soil and Water Conservation Issues*, by Jeffrey A. Zinn. Finally, climate change may have implications for natural resources, including agriculture, forestry, fisheries, water availability, and ecosystem health, and may contribute to changes in the intensity, location, and timing of some natural disasters, such as flooding, drought, and hurricanes. For information on climate change, see CRS Issue Brief IB89005, *Global Climate Change*, by John R. Justus and Susan R. Fletcher.

¹ For information on appropriations bills and issues, and links to CRS reports, see the CRS appropriations page at [<http://www.crs.gov/products/appropriations/apppage.shtml>].

Natural Resource Issues

Federal Lands and Resources

Federal Estate: Ownership and Issues. The federal government manages about 650 million acres of land and resources — about 29% of the 2.27 billion acres of land in the United States. The percentage of federal ownership in some western states is significantly higher. Four agencies administer about 95% of federal lands: the Forest Service (FS) in the Department of Agriculture (USDA), and the Bureau of Land Management (BLM), Fish and Wildlife Service (FWS), and National Park Service (NPS), all in the Department of the Interior (DOI). Some issues, such as forest management and fire protection, involve both federal and private lands.

Ownership of lands by the federal government has long generated controversy and continues to do so in the 109th Congress. A key area of debate is how much land the federal government should own — and hence whether some federal lands should be disposed to state or private ownership, or some land should be acquired for conservation, open space, and other purposes. For lands retained in federal ownership, debates may involve whether to curtail certain land designations (e.g., national monuments proclaimed by the President or special management areas established by Congress) or if current management procedures should be changed (e.g., to allow a greater role for state and local governments or to expand economic considerations in decision-making). Also, the extent to which federal lands should be preserved, made available for development or resource extraction, or opened to recreational uses raises a variety of resources policy matters, especially with respect to preserving wildlife habitat, designating wilderness areas, developing energy resources, grazing livestock, and harvesting timber. Further, federal lands typically are administered under separate statutes, and the 109th Congress is reviewing these statutes and the related issues.

CRS Products

CRS Report RL32393, *Federal Land Management Agencies: Background on Land and Resources Management*, coordinated by Carol Hardy Vincent.

CRS Report RL30126, *Federal Land Ownership: Constitutional Authority; the History of Acquisition, Disposal, and Retention; and Current Acquisition and Disposal Authorities*, by Ross W. Gorte and Pamela Baldwin.

Federal Land Funding. Funding for federal lands continues to be contentious. Federal lands and natural resource programs must compete against other federal priorities (defense, education, etc.) as well as internally among the several land and resource management agencies. Some policy questions relate to setting fees (e.g., recreation and grazing fees, discussed in “Recreation” and “Rangelands” below). One perennial question relates to funding from the Land and Water Conservation Fund (LWCF). This account is credited with deposits of \$900 million annually, but the funds can only be spent when Congress enacts appropriations. Attention to this issue in the 109th Congress has centered on (1) the amount to appropriate annually to each of the four eligible federal land management agencies,

and to the state grant program; (2) which lands should be acquired; and (3) use of LWCF funds for purposes other than land acquisition. The primary context for debating these issues has been the annual Interior appropriations legislation.

Another contentious federal lands funding issue is compensating counties for the tax-exempt status of federal lands. Appropriations for the primary compensation program, Payments in Lieu of Taxes (PILT), have not kept pace with the increasing authorized level. The 109th Congress has addressed PILT funding as part of annual Interior appropriations legislation, and bills have been introduced to provide permanent appropriations for PILT. Another compensation program, the Secure Rural Schools and Community Self-Determination Act (P.L. 106-393), was enacted to offset FS and BLM payments that had declined due to lower timber sales. This act expires at the end of FY2006; Congress is considering legislation to retain the law.

CRS Products

CRS Report RL33399, *Interior, Environment, and Related Agencies: FY2007 Appropriations*, coordinated by Carol Hardy Vincent and Susan Boren.

CRS Report RS21503, *Land and Water Conservation Fund: Current Status and Issues*, by Jeffrey A. Zinn.

CRS Report RL31392, *PILT (Payments in Lieu of Taxes): Somewhat Simplified*, by M. Lynne Corn.

CRS Report RS22004, *The Secure Rural Schools and Community Self-Determination Act of 2000: Forest Service Payments to Counties*, by Ross W. Gorte.

Forests and Fire Management. In recent years, wildfires have killed firefighters, burned homes, threatened communities, and destroyed trees. Reducing fuels in the federal forests has been proposed to reduce the threats from fire, although the threats are not limited to federal forests. In December 2003, Congress enacted the Healthy Forests Restoration Act (P.L. 108-148) to facilitate forest fuel reduction activities and for other purposes indirectly related to wildfire protection. Oversight, authorization, and funding of fire programs are being considered by the 109th Congress. The 109th Congress also is considering legislation to expedite rehabilitation and recovery research and activities following significant forest-altering events, such as major forest fires.

The Bush Administration has made numerous regulatory changes related to forest management, public involvement in FS planning and decision making, environmental impacts of FS activities, and fuel reduction. Changes include:

- categorical exclusions from analysis and documentation under the National Environmental Policy Act (NEPA; 42 U.S.C. §§ 4321-4347), involving various activities, including fuel reduction, post-fire rehabilitation, and “small” timber sales;
- modified review procedures, for example, for administrative review and internal Endangered Species Act consultations; and

- new rules governing national forest uses, such as for issuing special use permits and for protecting roadless areas. These changes necessarily alter forest management, set forth in forest plans prepared under the National Forest Management Act of 1976 (NFMA; 16 U.S.C. §§1600-1616, et al.).

Many of these regulations have been challenged in court. The Bush Administration also has promulgated new regulations governing NFMA planning, and there is substantial uncertainty over management of the national forests. The 109th Congress has conducted oversight of some of the proposed changes and related litigation.

CRS Products

CRS Issue Brief IB10076, *Bureau of Land Management (BLM) Lands and National Forests*, coordinated by Ross W. Gorte and Carol Hardy Vincent.

CRS Report RL30755, *Forest Fire/Wildfire Protection*, by Ross W. Gorte.

National Park Management. The National Park Service mission, to provide for the public enjoyment of parklands while protecting park resources, has fostered continuing management challenges. The NPS is revising the agency's policy management document, which guides park superintendents in day-to-day unit operations. The agency is undertaking the revision to address developments, for instance in recreation and technology; to include coverage of financial issues; and to respond to some support in Congress for policy changes. The revision process and suggested changes have been controversial, with concerns that the revisions could weaken fundamental standards and protections for the parks. The NPS also is working to define and quantify its maintenance needs, but the extent of progress toward eliminating the agency's multibillion dollar backlog of deferred maintenance remains unclear. Questions for Congress include the adequacy of efforts to reduce the backlog; sufficiency of funds for the maintenance backlog; and the balance between eliminating the backlog, maintaining sufficient operational funding, and other NPS priorities.

Congress funds and oversees NPS efforts to enhance security, particularly for Park units near or along U.S. borders and at "symbols of democracy," such as the Washington Monument and Statue of Liberty. Congress also is monitoring the role of "partnership" groups that raise funds for the NPS. There has been some concern that large-scale construction projects financed by partnership groups may increase operation and maintenance funding needs and influence agency priorities. In addition, Congress is debating many park and recreation bills to designate or study sites for particular purposes or uses, or to adjust the boundaries of park units. National Heritage Areas (NHAs), which are designated by Congress, receive technical and financial assistance from the NPS but are not federally owned. In view of the large number (27) of existing NHAs, and the considerable pending legislation to study and designate additional areas, Congress is considering legislation to provide consistent criteria for NHA designation, management, and funding.

CRS Products

CRS Report RL33462, *Heritage Areas: Background, Proposals, and Current Issues*, by Carol Hardy Vincent and David L. Whiteman.

CRS Issue Brief IB10145, *National Park Management*, coordinated by Carol Hardy Vincent.

CRS Issue Brief IB10141, *Recreation on Federal Lands*, coordinated by Kori Calvert and Carol Hardy Vincent.

Rangelands. Federal rangelands management presents an array of matters for Congress. They include proposed Bureau of Land Management changes to grazing regulations to improve grazing administration overall; these changes are supported by some, but criticized by others either as unnecessary or as removing important environmental protections. Another rangelands focus involves the automatic renewal of expiring grazing permits and leases, with one law authorizing temporary renewal without requirements for environmental studies, for those permits and leases expiring through FY2008. Further, the federal grazing fee for private livestock grazing on federal lands has been controversial for decades. Instances of grazing on federal land without a permit or payment of fees, and agency actions to fine and jail owners and impound and sell trespassing cattle, also have been contentious.

Federal rangeland condition is a recurring interest for Congress. Many view invasive and noxious weeds as an expanding threat to the health and productivity of rangelands. (See “Invasive Species,” below.) Restricting or eliminating grazing on some federal land because of environmental and recreational concerns is being considered. These efforts are opposed by those who support ranching on the affected lands for lifestyle, environmental, and economic reasons. Some measures would compensate grazing permittees who voluntarily relinquish their permits, and one would provide compensation when agency decisions reduce or eliminate permitted grazing. In addition, there is continued interest in BLM’s management of wild horses and burros, and efforts to remove them from the range to achieve “appropriate management levels.” The adoption and sales programs and the slaughter of healthy animals have been of particular focus. Some measures would overturn the BLM’s sale authority and other changes enacted in 2004, while other bills seek to foster the sale and adoption of wild horses and burros.

CRS Products

CRS Report RL32244, *Grazing Regulations: Changes by the Bureau of Land Management*, by Carol Hardy Vincent.

CRS Report RS22347, *Wild Horse and Burro Issues*, by Carol Hardy Vincent.

Recreation. The federal land management agencies administer most U.S. government land for multiple purposes, including preservation, recreation, and in some cases natural resources development. The preservation/use dichotomy is a focal point for debate over recreation on federal lands. Key topics include access for recreation generally; motorized off-highway vehicle use and policies for BLM and

FS areas; and the use of personal watercraft, snowmobiles, and aircraft for NPS units. Specific conflicts for NPS units center on snowmobiles in three Yellowstone area parks, air tour overflights and “natural quiet” at Grand Canyon National Park (GCNP), and the proposed Colorado River Management Plan for GCNP to allocate permits for motorized and non-motorized boats. Other matters include the effect of recreation, especially motorized recreation, on natural resources, visitor experience, and local economies.

Debate also is continuing over trails; while trail designation is often popular, questions remain regarding their quantity, quality, and funding. Pending legislative issues include trail measures to designate, study, or extend specific components of the National Trails System; to create a new category of long-distance trails, called National Discovery Trails; and to authorize land acquisitions from willing sellers to complete specified national scenic and historic trails. Recreation debates also arise in areas managed by other federal agencies, such as reservoirs and rivers managed by the Army Corps of Engineers and Bureau of Reclamation. Subjects of congressional oversight include balancing recreational water needs and other purposes, financing maintenance of recreational facilities, and developing policies for recreational development and land use. Congress also is overseeing agency efforts to establish, collect, and distribute fees for recreation at federal lands and waters.

CRS Products

CRS Report RS22171, *Federal Lands Recreation Enhancement Act*, by Carol Hardy Vincent.

CRS Issue Brief IB10141, *Recreation on Federal Lands*, coordinated by Kori Calvert and Carol Hardy Vincent.

Wilderness and Roadless Areas. Federal agencies manage some federal lands to preserve natural conditions for biological, recreational, or scenic purposes. In 1964, the Wilderness Act created the National Wilderness Preservation System, with statutory protections that emphasize preserving areas in their natural state. Although a few exceptions were provided in the act, wilderness areas included in the System generally cannot have permanent roads and structures, and use of machines and mechanized travel generally is limited. Units of the System can only be designated by Congress. Many bills to designate wilderness areas are introduced in each Congress; more than 30 have been introduced in the 109th Congress. Designation of new wilderness areas can be controversial. Many areas currently being considered are managed by BLM under the Federal Land Policy and Management Act (FLPMA). Wilderness Study Areas (WSAs) have raised legal questions, including whether FLPMA allows the BLM to conduct additional wilderness inventories or to create new WSAs, and whether release language is needed to allow multiple use management of WSAs not designated as wilderness. In addition, some BLM lands do not include the headwaters of water sources flowing through the land, which may raise water rights and other issues as part of congressional consideration of designating BLM wilderness areas.

Management for the remaining national forest roadless areas remains a controversial issue. The Clinton Administration promulgated nationwide rules to administratively protect the remaining *inventoried roadless areas* in the National

Forest System by precluding most roads and timber harvesting. These roadless rules have been called de facto wilderness management even though roads and timbering were allowed in more instances than is true for areas in the National Wilderness Preservation System. The validity of the rules was litigated, and enforcement of the rules enjoined. The Bush Administration has finalized new rules (70 Fed. Reg. 25654, May 13, 2005) that eliminate a nationwide approach, return management of roadless areas to the normal planning process for each forest unit, and give governors of the various states the option of making recommendations on the management of roadless areas in their states. The new rules have made moot the litigation over the previous rules. Congress may conduct oversight of agency rulemaking, and bills relating to management of roadless areas have been introduced.

CRS Products

CRS Report RS21917, *Bureau of Land Management (BLM) Wilderness Review Issues*, by Ross W. Gorte and Pamela Baldwin.

CRS Report RL30647, *The National Forest System Roadless Areas Initiative*, by Pamela Baldwin.

CRS Report RL31447, *Wilderness: Overview and Statistics*, by Ross W. Gorte.

Ocean Affairs and Earth Sciences

Assessing Ocean Policy. In 2000, the Pew Oceans Commission, an independent group, was established and funded by the Pew Charitable Trusts to conduct a national dialogue on the policies needed to restore and protect living marine resources in U.S. waters. The Pew Commission released its final report in June 2003 — *America’s Living Oceans: Charting a Course for Sea Change* — with 26 recommendations that outlined a national agenda for protecting and restoring our oceans. Also in 2000, legislation to create a U.S. Commission on Ocean Policy was enacted (P.L. 106-256). Bearing the title *An Ocean Blueprint for the 21st Century*, the U.S. Commission’s final report, with 212 recommendations on a coordinated and comprehensive national ocean policy, was delivered to the President and Congress on September 20, 2004. The reports covered an array of issues, such as Law of the Sea (see “U.N. Convention on the Law of the Sea,” below); national and regional governance; federal organization, regulation, and enforcement; offshore management regimes; funding for sound science and research and for implementing commission recommendations; oceanic education; coastal and watershed management; and ecosystem-based management.

In considering legislative responses to the findings and recommendations of those two ocean policy reports, the 109th Congress is addressing specific legislation relating to ocean exploration; ocean and coastal observing systems; marine debris research, prevention, and reduction; federal organization and administrative structure; and ocean and coastal mapping integration. Comprehensive bills encompassing a broad array of crosscutting concerns also are under consideration. A Joint Ocean Commission Initiative, established in September 2005 and composed of former members of both the Pew Commission and the U.S. Commission, has criticized the lack of progress made by Congress, the Administration, states, and nongovernmental stakeholders in addressing hundreds of the commissions’ recommendations and in

implementing new measures. The February 2006 release of that assessment, *U.S. Ocean Policy Report Card*, was timed to accompany the rollout of the President's FY2007 budget. The *Report Card* highlights where additional efforts are necessary and where opportunities for improvements exist. More information about the Joint Ocean Commission Initiative, and the complete *U.S. Ocean Policy Report Card*, may be found at [<http://www.jointoceancommission.org>].

CRS Products

CRS Issue Brief IB10132, *Ocean Commissions: Ocean Policy Review and Outlook*, by John R. Justus, Eugene H. Buck, Jeffery A. Zinn, and Wayne A. Morrissey.

Atmospheric and Oceanic Research, Operations, and Services.

Atmospheric and oceanic research is conducted for a variety of reasons, such as improving weather forecasts and warnings issued by the National Weather Service, monitoring air quality, assessing water availability, detecting climate change, and improving the health of marine ecosystems. Much of civilian research is done by the National Oceanic and Atmospheric Administration (NOAA), but other federal agencies also contribute. One issue receiving congressional attention is NOAA's research on methyl bromide — an agricultural pesticide that is implicated in stratospheric ozone depletion. Its phaseout is scheduled for some time in 2006. Questions for Congress include whether the United States can continue to obtain production allowances or floor stock use allowances for critical uses in the absence of viable alternatives for this substance. NOAA also performs a variety of other activities ranging from climate outlooks to marine fisheries management.

Funding for NOAA is currently authorized under several laws, because programs from different federal agencies were merged into the agency when it was created in 1970 and placed in the Department of Commerce (DOC). Some lawmakers have proposed a single authorization for all NOAA programs, or a NOAA *organic act*. Although much of the current interest in NOAA authorization is driven by the U.S. Commission on Ocean Policy recommendations, which focus on federal agency-wide coordination of ocean and coastal programs under NOAA, there also is an historical precedent of congressional interest in creating a NOAA organic act. The 109th Congress also may debate related organizational issues, such as whether to establish NOAA as an independent agency, transfer it to another department, or maintain its status quo within the DOC but with enhanced budget authority.

CRS Products

CRS Report RS22410, *The National Oceanic and Atmospheric Administration (NOAA) Budget for FY2007: President's Request, Congressional Appropriations, and Related Issues*, by Wayne A. Morrissey.

CRS Issue Brief IB10132, *Ocean Commissions: Ocean Policy Review and Outlook*, by John R. Justus, Eugene H. Buck, Jeffrey A. Zinn, and Wayne A. Morrissey.

CRS Report RS20863, *Stratospheric Ozone Depletion and Regulation of Methyl Bromide*, by Wayne A. Morrissey.

Coastal Resources. Coastal resource issues almost always involve conflicts between human activities in coastal areas and protection of natural resources. While the country's coastal counties are only 17% of the nation's area, they are home to more than 50% of the country's population and jobs. Conflicts may increase in number and intensity as population and development continue to concentrate in coastal areas. Currently, development is concentrated along the shoreline of most coastal counties, where it can displace or disrupt wetlands, beaches and dunes, estuaries, and other highly productive natural systems. At the same time, the shoreline is exposed to hazardous natural forces, including ocean storms, high winds, and flooding. Where the shoreline is developed, property owners try to stabilize it. This can increase the loss from hazards, and subsequent federal outlays. Numerous hurricane landfalls in recent years, especially Hurricane Katrina in 2005, have brought the public policy challenges of expanding coastal development into sharper focus.

The coastal zone management program is the central federal effort for managing coastal development and resource protection. The authorization of appropriations expired at the end of FY 1999, and the 109th Congress, like earlier ones, is considering reauthorization legislation. The program provides federal grants to assist states and territories in creating and administering federally approved plans for development and protection. Statutory and regulatory guidance for these plans give participants considerable latitude as to which topics they emphasize. The program also gives participants leverage over federal actions in or affecting coastal zones by requiring those actions to be consistent with approved plans. In addition to reauthorization, Congress is considering programs and projects for specific coastal resource topics, such as estuaries, wetlands, beach erosion, or coastal barriers. Many other federal programs that apply more broadly have large coastal components, such as resource protection programs for certain federal lands (e.g., seashore units of the National Park System and units of the National Wildlife Refuge System), and the National Flood Insurance Program. (See "Natural Disaster Mitigation" below.)

CRS Products

CRS Report RS20498, *Coastal Zone Management Reauthorization: An Overview*, by Jeffrey A. Zinn.

Fishery and Marine Mammal Policy. Two recent ocean policy reports, discussed in "Assessing Ocean Policy" above, expressed concern over U.S. management and use of fish and marine mammals. These reports recommend measures to address declining fish stocks, to protect marine mammal populations, and to improve the sustainability and competitiveness of the U.S. commercial fishing industry. The 109th Congress is considering legislation to reauthorize and amend both the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) and the Marine Mammal Protection Act (MMPA), incorporating some of the recommendations of the two ocean policy reports. Authorizations of appropriations for both the MSFCMA and the MMPA have expired. The MSFCMA authorizes federal management of fishing in waters of the U.S. Exclusive Economic Zone beyond state jurisdiction to 200 miles offshore. The MMPA prohibits taking of marine mammals unless permitted under several programs.

Among the topics under discussion in amending the MSFCMA are modifying management of bycatch, managing larger marine ecosystems, and increasing protection for unique habitats, with possible policy questions concerning the legislative designation of marine protected areas. Proposed reforms also include creating user fees and other revenue sources to fund conservation, management, and enforcement. Other proposed changes seek to promote the collection of necessary data and ensure that regional fishery management council decisions are fair and balanced. Other proposals aim to enhance the stability of the fishing industry by implementing programs to reduce fishing capacity and establish national standards (also referred to as limited access privilege programs).

Topics of debate for amending the MMPA include modifying management of commercial fishing interactions, robust wild stocks, and captive marine mammals; actions fostering international cooperation on managing marine mammal populations may also be considered. Discussions of regulatory changes may encompass subsistence use of marine mammals by Native Americans, effects of underwater noise of human origin, and incidental takes of marine mammals.

CRS Products

CRS Report RL33459, *Fishery, Aquaculture, and Marine Mammal Legislation in the 109th Congress*, by Eugene H. Buck.

CRS Report RL30215, *The Magnuson-Stevens Fishery Conservation and Management Act: Reauthorization Issues*, by Eugene H. Buck and Daniel A. Waldeck.

CRS Report RL30120, *The Marine Mammal Protection Act: Reauthorization Issues*, by Eugene H. Buck.

Natural Hazards and Mapping Data Management. The federal government funds natural hazards research through the U.S. Geological Survey (USGS) and other agencies. Federal research is contributing to scientific understanding of the causes of disasters, such as tsunamis, hurricanes, tornadoes, floods, earthquakes, and volcanic activity; identifying potential disaster locations; projecting possible impacts; and assessing post-disaster damages and losses. Disaster-related data and warnings are disseminated electronically to international agencies of concern. Also, disaster decision support has been assisted by federally developed technologies including automated geographic information systems (GIS), satellite remote sensing and locator devices, and detection and warning systems. The federal government also funds preventative approaches to disaster management, such as mitigation funding. (See “Natural Hazards Mitigation” below.) Recent congressional debate about natural hazards includes defining appropriate roles for the federal government, assessing the effectiveness of current approaches for saving lives and property, and determining whether current policies are cost effective at the national level. The December 2004 tsunami in Indonesia and Hurricane Katrina, which struck the U.S. Gulf Coast on August 29, 2005, have posed formidable challenges for disaster mitigation.

The Federal Emergency Management Agency (FEMA), in the Department of Homeland Security, is implementing a Flood Map Modernization Initiative (FMMI)

through which it plans to produce digitally new floodplain maps and digitize paper maps by 2008. FEMA contends these new maps will be more geographically accurate. Congress is concerned about the progress of FMMI, its cost, and related issues such as benefits for homeland security, public access to data, and right-to-privacy. Hurricane Katrina may recast how FEMA designates flood hazard risks on flood maps. One particularly contentious issue concerns multiple federal mapping programs and conflicting regulations in coastal areas. The Coastal Barrier Resources Act (CBRA) would deny some property owners access to federal flood insurance, even if FEMA would otherwise insure them. Also, some communities have been exempted by law from the National Flood Insurance Program (NFIP), and are developing on floodplains and in FEMA-designated regulated floodways. Issues for the 109th Congress include approaches to federal disaster management, modernization of flood maps, access to mapping data, and legislation to exempt some property owners from CBRA and NFIP.

CRS Products

CRS Report RL33264, *FEMA's Flood Hazard Map Modernization Initiative*, by Wayne A. Morrissey.

CRS Report RL32739, *Tsunamis: Monitoring, Detection, and Early Warning Systems*, by Wayne A. Morrissey.

U.N. Convention on the Law of the Sea. The 1982 United Nations Convention on the Law of the Sea and the 1994 Agreement Relating to Implementation of Part XI of the United Nations Convention on the Law of the Sea remain pending before the Senate Committee on Foreign Relations. The Convention established a legal regime governing activities on, over, and under the world's oceans. The Convention and agreement have entered into force, but the United States has not acceded to the treaty or ratified the agreement.

On October 7, 1994, President Clinton transmitted the treaty and agreement to the Senate, and the package was referred to the Senate Committee on Foreign Relations. In October 2003 the committee held hearings on the treaty, and in February 2004 the committee recommended that the Senate give its advice and consent to U.S. adherence. However, the treaty was not considered by the full Senate. If the committee again favorably recommends Senate advice and consent to U.S. adherence, this convention may be an issue for the full Senate in the 109th Congress. The following have been among recent arguments presented in support of U.S. adherence: participation would protect U.S. interests during ongoing deliberations by the Commission on the Limits of the Continental Shelf, which was created by the Convention, and enable the United States to submit its own limits; and participation would enhance U.S. efforts to amend the Convention. Some opponents to U.S. adherence assert that participation in the Convention would be contrary to U.S. national security interests, especially as the United States carries out its counter-terrorism programs. Opponents also maintain that fundamental concerns raised in 1982 by the Reagan Administration were not corrected by the 1994 Agreement, and are concerned about the extent to which adherence would infringe on U.S. sovereignty.

CRS Products

CRS Issue Brief IB95010, *The Law of the Sea Convention and U.S. Policy*, by Marjorie Ann Browne.

CRS Report RL32185, *U.N. Convention on the Law of the Sea: Living Resources Provisions*, by Eugene H. Buck.

CRS Report RS21890, *The U.N. Law of the Sea Convention and the United States: Developments Since October 2003*, by Marjorie Ann Browne.

Species Management and Ecosystem Protection

Endangered Species. The Endangered Species Act of 1973 (ESA) has been one of the more contentious environmental laws. This may stem from its strict substantive provisions, which can affect the use of both federal and nonfederal lands and resources. Under the ESA, species of plants and animals (both vertebrate and invertebrate) can be listed as *endangered* or *threatened* according to assessments of their risk of extinction. Once species are listed, legal tools are available to aid their recovery and protect their habitat. The ESA also may be controversial because dwindling species usually are harbingers of resource scarcity — the most common cause of listing species is habitat loss. The authorization for spending under the ESA expired on October 1, 1992. The prohibitions and requirements of the ESA remain in force, even in the absence of an authorization, and funds have been appropriated to implement the administrative provisions of the ESA in each subsequent fiscal year. The 109th Congress is focusing on various proposals to amend the ESA. Policy questions include changes to the role of science in decision-making; changes to the definition, extent, and process for designating critical habitat; further protections for private property owners' interests; and incentives for increased landowner protection of listed species.

CRS Products

CRS Report RL33468, *The Endangered Species Act (ESA) in the 109th Congress: Conflicting Values and Difficult Choices*, by Eugene H. Buck, M. Lynne Corn, Pervaze A. Sheikh, Pamela Baldwin, and Robert Meltz.

CRS Report RL33309, *Reauthorization of the Endangered Species Act (ESA): A Comparison of Pending Bills and a Proposed Amendment with Current Law*, by Pervaze A. Sheikh, Pamela Baldwin, Erika Lunder, M. Lynne Corn, and Eugene H. Buck.

International Species Protection and Conservation. The United States is involved in the conservation of foreign species and natural areas through various laws and international treaties, such as the ESA and the Convention on International Trade in Endangered Species (CITES). CITES is an international agreement that aims to ensure that the trade in plants and animals does not threaten their survival. The ESA protects foreign endangered species by limiting or banning their import into the United States, and implements CITES. Overall, the ESA has a more comprehensive approach to foreign species protection than CITES. For example, the

ESA protects species based on several criteria that may threaten their survival, whereas CITES protects species based solely on the threat of trade to survival.

The United States also assists in the conservation of some high-visibility foreign species (e.g., tigers and elephants) by providing funds for conserving their populations and habitat through the Multinational Species Conservation Fund. The United States further promotes the conservation of tropical forests in developing countries, most notably through debt-for-nature transactions under the Tropical Forest Conservation Act.

The 109th Congress is considering whether protection for foreign species under the ESA should be modified to more closely follow CITES. Issues for Congress include a proposed FWS policy to allow limited imports of endangered foreign species if the import enhances the species' population (enhancement-of-survival permits). The proposed policy would move ESA protections closer to CITES. Oversight issues for Congress include a proposal to revise regulations for implementing CITES, and the implementation of the Tropical Forest Conservation Act, illegal logging activities, and the conservation of international fisheries.

CRS Products

CRS Report RL32751, *The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES): Background and Issues*, by Pervaze A. Sheikh and M. Lynne Corn.

CRS Report RL31286, *Debt-for-Nature Initiatives and the Tropical Forest Conservation Act: Status and Implementation*, by Pervaze A. Sheikh.

CRS Report RS21157, *Multinational Species Conservation Fund*, by Pervaze A. Sheikh and M. Lynne Corn.

CRS Report RS22420, *Enhancement-of-Survival Permits: Background and Status of Proposed Policy*, by Pervaze A. Sheikh.

Invasive Species. Non-native species, introduced accidentally or intentionally, can cause both ecological and economic damage. The 109th Congress is weighing whether new legislative authorities and additional funding are needed to address issues of non-native species and their increasing economic and ecological impacts. A major unanswered question is who should be responsible for ensuring economic integrity and ecological stability in response to the actual or potential impacts of non-native species. In addition to the possible benefits for natural resources damaged by non-native species, legislation could help or harm many economic interests, including domestic and international trade and tourism, industries dependent on bringing in non-native species, and those dependent on keeping them out. Additional policy considerations include the balance between prevention and response, overlapping jurisdiction of congressional committees, and coordination of the many agencies and levels of government now dealing with invasive species.

The congressional response to problems posed by harmful non-native species generally has been to address specific non-native species, such as brown tree snakes on Guam and impure seed stocks. A few notable efforts have begun to address

specific pathways (e.g., ship ballast water through the Nonindigenous Aquatic Nuisance Prevention and Control Act), but no current law addresses the general concern over non-native species and the wide variety of paths by which they enter this country. In the 109th Congress, while hearings have been held on several invasive species matters, committee action has focused on ballast water and invasive carp species.

CRS Products

CRS Report RL30123, *Invasive Non-Native Species: Background and Issues for Congress*, by M. Lynne Corn, Eugene H. Buck, Jean Rawson, Alex Segarra, and Eric Fischer.

Large-Scale Ecosystem Restoration and Management. In the last 25 years, the United States has devoted substantial effort to, and spent billions of dollars on, restoring some large ecosystems such as the Florida Everglades, the Chesapeake Bay, and the San Francisco Bay and Sacramento and San Joaquin Rivers Delta (California Bay-Delta). Many of these efforts have multiple objectives and benefits, such as improving water supply and conveyance, and managing natural resources and watersheds. The 109th Congress is weighing restoration-related policy issues at these and other locations. Policy issues range from the allocation of natural resources (e.g., agricultural and municipal water), to governance and funding of restoration initiatives, to the science supporting restoration efforts.

The 109th Congress is considering authorizing additional activities for ongoing ecosystem restoration efforts, including efforts for the Upper Mississippi River System, Chesapeake Bay, Great Lakes (also discussed in “Transboundary Water Resources”), and coastal Louisiana (also discussed in “Wetlands Protection and Restoration”). Ongoing restoration initiatives also are receiving congressional direction through oversight, additional authorizations, and appropriations. For instance, the 109th Congress is considering whether to authorize a second set of Everglades restoration projects as part of a general Everglades restoration framework that was approved in 2000 and included an initial set of projects. A regional strategy for restoring the Great Lakes was promulgated in December 2005, and several bills authorizing portions of the strategy have been introduced. Oversight of ecosystem restoration also is occurring in the context of broader water resources activities, such as California Bay-Delta water-related efforts and coordination of Great Lakes restoration.

CRS Products

CRS Report RL31975, *CALFED Bay-Delta Program: Overview of Institutional and Water Use Issues*, by Pervaze A. Sheikh and Betsy A. Cody.

CRS Report RL31621, *Florida Everglades Restoration: Background on Implementation and Early Lessons*, by Pervaze A. Sheikh.

CRS Report RL32630, *Upper Mississippi River System: Proposals to Restore an Inland Waterway’s Ecosystem*, by Kyna Powers and Nicole T. Carter.

Wetlands Protection and Restoration. According to a Fish and Wildlife Service survey published in March 2006, there now are about 108 million acres of wetlands, of an estimated 220 million acres present when Europeans arrived in the area that became the 48 coterminous states. Until the early 1980s, federal policies emphasized converting wetlands to other uses, primarily agricultural production. Since then, these policies have been revised, and now seek to retain wetlands for their resource values. Starting with George H. W. Bush, Presidents have articulated a goal of either no-net-loss or net-gain of wetlands. The current Bush Administration has announced that wetland protection will be a second term priority, with a goal of restoring or improving 3 million acres.

Congress has supported recent wetland protection efforts by altering or eliminating programs that contributed to wetland destruction and by creating new protection programs. Recent Congresses have focused on conflicts between the rights of landowners and protection efforts because almost 75% of all wetlands are on private lands. Issues for the 109th Congress include the implementation of federal protection efforts, such as the permit program of the Army Corps of Engineers under §404 of the Clean Water Act and federal acquisition and easement programs. Other issues involve changes in wetland acreage, including where wetlands are being lost or gained; how different types of wetlands are affected by protection efforts; and the effectiveness of various protection approaches and programs. Ecosystem restoration in coastal Louisiana, which involves restoring existing wetlands and creating additional wetlands, has attracted increased interest due to recent hurricanes. Wetlands are believed to play important roles in mitigating the impacts these storms have on development. (See “Large-Scale Ecosystem Restoration and Management,” above.)

CRS Products

CRS Report RS22276, *Coastal Louisiana Ecosystem Restoration After Hurricanes Katrina and Rita*, by Jeffrey A. Zinn.

CRS Issue Brief IB97014, *Wetland Issues*, by Jeffrey A. Zinn and Claudia Copeland.

Water Resources

Assessing Federal Water Resources Policy and Research. The U.S. government has traditionally deferred to state control over water allocation and use; however, the federal government is directly involved in many activities related to flood control, navigation, hydropower development, and irrigation water supply. While allocation issues (i.e., how much water may be used and where) are primarily an issue of state law, numerous federal statutes and federally constructed and owned facilities affect allocation decisions, and overall management of the nation’s water resources.

Responsibilities for federal water resources planning, management, development, and research are spread among several congressional committees, and among many federal departments, agencies, and bureaus. Interest in evaluating the federal role in water resources stems from several factors. They include recurrent pressures on existing water supplies, population growth, drought, species needs,

changing public views, and concerns about flood control and coastal water-hazards (such as hurricanes, tsunamis, and erosion and other land loss). This interest has manifested itself in several ways during the 109th Congress. Examples include a Senate Committee on Energy and Natural Resources water symposium and legislation to establish a new national water policy commission, periodically assess national water resources, change water resources project planning, create a national levee safety program, and authorize site-specific multi-faceted water supply and ecosystem restoration projects.

CRS Products

CRS Report RS20569, *Water Resource Issues in the 109th Congress*, by Betsy A. Cody and H. Steven Hughes.

Army Corps of Engineers. Congress regularly authorizes U.S. Army Corps of Engineers water resources projects and amends agency policy in a Water Resources Development Act (WRDA), and it appropriates funds annually to the agency in the Energy and Water Development Appropriations Act. The 109th Congress is considering WRDA legislation. A prominent policy issue in the WRDA debate is whether to change the Corps' project planning and review process to include more environmental considerations, or to limit the length and increase the predictability of the process. Also of debate are possible independent review requirements for Corps studies and authorizations of high-profile projects, such as Gulf Coast hurricane protection and coastal Louisiana wetlands restoration, and the Upper Mississippi River navigation lock expansion and ecosystem restoration.

Whether policy and program changes are needed to set priorities among the Corps' backlog of construction projects and maintenance activities is a topic of debate both in the context of WRDA and annual agency appropriations. A recent shift by the Administration to performance-based budgeting has resulted in the budget request for the Corps focusing funds on a smaller set of projects than in the past. Both the House and the Senate in appropriations bills and reports provide the Corps direction on prioritizing projects and distributing funds across the Corps' portfolio of authorized activities. Other Corps appropriations issues in the 109th Congress include agency financial management topics, such as the agency's reliance on reprogramming of funds across projects and the use of multi-year contracts. Also being considered are supplemental appropriations and related authorizations for coastal Louisiana hurricane protection, infrastructure repairs, and strengthening.

CRS Products

CRS Report RL32064, *Army Corps of Engineers Water Resources Activities: Authorization and Appropriations*, by Nicole T. Carter and H. Steven Hughes.

CRS Issue Brief IB10133, *Water Resources Development Act (WRDA): Army Corps of Engineers Authorization Issues in the 109th Congress*, coordinated by Nicole T. Carter, Pervaze A. Sheikh, and Jeffrey A. Zinn.

Bureau of Reclamation. The Bureau of Reclamation operates hundreds of federal dams, reservoirs, and distribution facilities throughout the western United States. As the largest wholesale water supplier (primarily for irrigation) and the

second largest hydroelectric power producer in the country, the Bureau's facilities are intricately involved in myriad western water resource issues. Perennial matters for Congress involve appropriations for authorized construction and maintenance activities and funding levels for newly authorized water reuse (Title 16) and rural water supply projects.

Other topics of congressional debate involve project management and operations — particularly how project operations and water contract renewals may affect federally listed threatened and endangered species, and how requirements to alter project operations to protect such species may affect long-term water users. Long-term contracts for water deliveries are being renewed in several critical areas, many with renegotiated terms. Areas where project operations are particularly controversial include the Klamath River basin (OR and CA); the Trinity River basin (CA); the Sacramento and San Joaquin rivers (CA), including the Bay-Delta area where they converge; and the Middle Rio Grande area (NM). Overarching legislation to address water issues in California (CALFED) was enacted at the end of the 108th Congress. However, activities such as progress on storage projects and federal spending, as well as efforts to increase pumping and renew long-term contracts, have been the subject of congressional oversight and judicial attention during the 109th Congress. Other areas of congressional interest are more programmatic, such as whether the Bureau should continue to invest in water reuse projects and whether a rural water supply program ought to be established. (See “Rural and Municipal Water Supply,” below.)

CRS Products

CRS Report RL31975, *CALFED Bay-Delta Program: Overview of Institutional and Water Use Issues*, by Pervaze A. Sheikh and Betsy A. Cody.

CRS Report RL31098, *Klamath River Basin Issues: An Overview of Water Use Conflicts*, by Betsy A. Cody, Pamela Baldwin, and Eugene H. Buck.

CRS Issue Brief IB10019, *Western Water Resource Issues*, by Betsy A. Cody and Pervaze A. Sheikh.

Dams. While the nation's more than 77,000 federal and nonfederal dams provide multiple benefits, they also pose risks. Although dam failures have been rare, dam safety and security is a concern because approximately 10,000 U.S. dams are considered high-hazard dams, meaning that loss of life and significant property damage is probable in the event of failure. Age, construction deficiencies, inadequate maintenance, and seismic or weather events may contribute to structural integrity issues which fall under the auspices of dam safety programs. As state and municipal budgets remain tight, and more dams reach the end of their projected useful lives, pressures are likely to grow for federal funding to rehabilitate or remove nonfederal dams. Bills have been introduced in and enacted by (P.L. 109-103) the 109th Congress that include provisions to increase federal support for activities to rehabilitate nonfederal dams. The 109th Congress also may reauthorize appropriations for specific dam safety programs. Security — the prevention of deliberate harm to a structure — at most federal dams was assessed after September 11, 2001; investments to reduce risk at these dams are ongoing. For the most part,

security now competes for agency appropriations with longer-standing concerns over safety and other operation and maintenance activities involving federal facilities.

Operating licenses for many nonfederal hydropower facilities are due to expire, and relicensing will define how these facilities are managed for the next 30-50 years. The 109th Congress has enacted hydropower licensing reform through provisions of P.L. 109-58 (the Energy Policy Act of 2005). Before this legislation, certain state and federal agencies had authority to establish conditions as part of Federal Energy Regulatory Commission (FERC) licenses. The new law altered agencies' conditioning authority. It includes provisions for applicants to propose alternatives to license conditions and requires agencies to accept those alternatives as long as the alternatives meet certain environmental and economic requirements. Additionally, under the law, FERC license applicants may challenge issues of material fact in license proceedings by requesting a trial-type hearing.

CRS Products

CRS Report RL32921, *Hydropower Licenses and Alternative Licensing Conditions in H.R. 6, 109th Congress*, by Kyna Powers.

CRS Report RL31903, *Relicensing of Non-Federal Hydroelectric Projects: Background and Procedural Reform Issues*, by Nic Lane.

Rural and Municipal Water Supply. Increased quantity and quality pressures on existing water supplies — due to growing population, environmental regulation, in-stream species and ecosystem needs, water source contamination, agricultural water demand, climate variability, and changing public interests — have resulted in heightened water use conflicts throughout the country, particularly in the West. These factors, coupled with the severity of recent drought in much of the West, have fostered interest in new water supply development, supply augmentation, and security of water supplies. Historically, local, regional, or state agencies generally have been responsible for municipal water supply, and have been wary of federal involvement in allocating water. Small and rural communities, however, increasingly have come to Congress for financial assistance with rural water supply projects. Urban communities have pressed for financial assistance with new technologies to augment water supply, primarily through desalination of seawater and brackish groundwater and municipal wastewater reclamation and reuse.

One congressional response over the last two decades has been authorization for the Bureau of Reclamation (and to a lesser extent other agencies) to construct individual rural water supply projects and participate in desalination and water reuse projects and research. Central questions for the 109th Congress are how these activities mesh with the historical federal role in municipal water supply and existing federal programs to assist communities, and whether a new rural water supply program is needed.

CRS Products

CRS Report RL30478, *Federally Supported Water Supply and Wastewater Treatment Programs*, by Resources, Science, and Industry Division.

CRS Issue Brief IB10019, *Western Water Resource Issues*, by Betsy A. Cody and Pervaze A. Sheikh.

Transboundary Water Resources. U.S. boundary waters — water basins and aquifers shared by the United States and Canada or Mexico — often present contentious resource issues, including water pollution, water withdrawals, and ecosystem restoration. International cooperation sometimes is hindered by competing economic interests, differences in governance, and varying levels of environmental and human health protection. In the Southwest United States, agricultural interests and municipalities depend on the Rio Grande River to satisfy increasing needs, but persistent drought and Mexico's reported failures to deliver water obligated under a 1944 Treaty appear to have caused significant economic losses to the region. In March 2005, the United States and Mexico reached an understanding to eliminate Mexico's Rio Grande water debt. Past Congresses have provided significant monetary support to the region. Congressional interest in Mexico's compliance is likely to continue during the 109th Congress.

Another focus is on the nation's largest shared freshwater resource — the Great Lakes. A concern for the 109th Congress is the potential for water withdrawals from the Great Lakes and their effects on the environment and surrounding population. On December 13, 2005, the Council of Great Lakes Governors — a partnership of the governors of the eight Great Lakes states and the premiers of two Canadian provinces — released a final agreement and a compact to create uniform water withdrawal standards. Some have questioned whether the agreement and compact in practice will limit water withdrawals. The compact needs to be approved by each of the eight state legislatures, as well as the Congress, to achieve full legal force.

CRS Products

CRS Report RL32956, *Great Lakes Water Withdrawals: Legal and Policy Issues*, by Stephen R. Viña and Pervaze Sheikh.

CRS Report RS22085, *The United States — Mexico Dispute over the Waters of the Lower Rio Grande River*, by Stephen R. Viña.

Water Use Challenges and River Management. The nation's surface water and groundwater are used for multiple, sometimes competing, purposes. In addition to being a resource, water can be a hazard to life and property. Existing arrangements for water use are being challenged by natural disasters and related damages, Indian water rights claims, drought conservation and preparedness measures, and judicial decisions affecting water allocation (e.g., decisions requiring management changes to support habitat for federally listed threatened and endangered species).

Coastal development and river and reservoir management, in particular, are receiving congressional and public scrutiny during the 109th Congress. Rivers and coasts provide not only economic benefits — navigation, flood protection, and water supply for agriculture and municipalities — but also recreational opportunities and natural habitat. Increasingly, a central management question is how to balance or prioritize uses and related infrastructure and mitigation investments, while satisfying existing water rights and contractual obligations, especially during drought. In many

cases, Bureau of Reclamation or Army Corps of Engineers facilities and their operation are central to debates over multi-purpose rivers. Water resources management by federal agencies remains controversial on the Middle Rio Grande, Colorado, Klamath, Columbia, Snake, Mississippi, and Missouri Rivers and is frequently challenged in the courts. In contrast, groundwater management has been left primarily to states. The federal role in groundwater monitoring and studies through agencies such as the U.S. Geological Survey, nonetheless, can be controversial. The 109th Congress has discussed federal involvement in surface water issues and some groundwater management topics through oversight, legislative direction, authorizing legislation, and appropriations.

CRS Products

CRS Report RS20569, *Water Resource Issues in the 109th Congress*, by Betsy A. Cody and H. Steven Hughes.

Other

Arctic Oil, Arctic Refuge (ANWR). The future of the rich biological resources, wilderness values, and energy potential of northeastern Alaska has been debated in Congress for more than 40 years. The question for Congress is whether to open a portion of what is now the Arctic National Wildlife Refuge (ANWR) to allow the development of potentially the richest onshore source of oil remaining in the United States, and if so, under what restrictions. Alternatively, Congress might choose to further protect the refuge's biological and wilderness resources through a statutory wilderness designation, or to maintain the current status of the area. Unless Congress chooses to act, the entire refuge will remain closed to development under provisions of the 1980 Alaska National Interest Lands Conservation Act (P.L. 96-487). The 109th Congress rejected inclusion of ANWR development in omnibus energy legislation, but the House approved a separate bill to open the Refuge to development. A commonly discussed scenario for the remainder of the 109th Congress is incorporation of an ANWR development title in a budget reconciliation package, which could help avoid a filibuster by Senate opponents of opening ANWR.

CRS Products

CRS Issue Brief IB10136, *Arctic National Wildlife Refuge (ANWR): Controversies for the 109th Congress*, by M. Lynne Corn, Bernard A. Gelb, and Pamela Baldwin.

CRS Report RL31278, *Arctic National Wildlife Refuge: Background and Issues*, coordinated by M. Lynne Corn.

Energy and Mineral Resources on Federal Lands. A controversial question is whether to increase availability of federal lands, both onshore and offshore, for energy and mineral development. The U.S. Geological Survey estimates that significant oil and gas resources exist below some onshore federal lands that are now off-limits to energy development, particularly in the Rocky Mountain region.

The Outer Continental Shelf (OCS) also contains significant energy resources.² An inventory of OCS oil and natural gas resources, completed by the Minerals Management Service (MMS) in February 2006, updated estimates of the total endowment of technically recoverable oil and gas on the OCS and identified impediments to the development of oil and gas. The industry contends that entry into some of these areas is necessary to ensure future domestic oil and gas supplies. Opponents maintain that there are environmental costs, and the United States could meet its energy needs through increased exploration elsewhere and energy conservation.

Comprehensive energy legislation (P.L. 109-58) affects energy development on onshore federal lands as well as the OCS. Provisions of the law streamline the permitting process for onshore oil and gas development and offer royalty incentives for offshore oil and gas development. BLM recently implemented new management strategies intended to remove impediments and streamline the permitting process for developing resources on onshore federal lands.

With regard to offshore lands, the U.S. Gulf of Mexico is identified by the Energy Information Administration as the most promising region for new additions to U.S. oil reserves. MMS projects Gulf oil production could be as high as 2.25 million barrels per day by 2011, 50% higher than current production. Natural gas production is projected to reach 13 billion cubic feet per day by 2011, more than twice its current level. These forecasts reflect retaining the current leasing moratoria for certain areas, although the industry is interested in accessing areas under moratoria. The moratoria have been imposed in response to economic and environmental concerns over drilling near coastal communities. As in the past, there are congressional efforts to repeal the offshore moratoria, for instance through the Interior appropriations bill for FY2007.

Royalty relief for OCS oil and gas producers has been debated during consideration of FY2007 Interior appropriations. On February 13, 2006, the *New York Times* reported that the MMS would not collect royalties on leases awarded in 1998 and 1999 because no price threshold was included in the lease agreements during those two years. Without the price thresholds, producers may produce oil and gas up to specified volumes without paying royalties no matter what the price. The MMS asserts that placing price thresholds in the lease agreements is at the discretion of the Secretary of the Interior, and that the price thresholds were omitted by mistake during 1998 and 1999.

Another area of congressional interest is in reforming the General Mining Law of 1872, which likely would include some form of royalty paid to the U.S. Treasury. The mining industry also is interested in removing alleged permitting delays, while some environmental groups press for stricter environmental regulations.

² The Outer Continental Shelf (OCS) is defined, on the website of the Minerals Management Service, as the federally administered submerged lands, subsoil, and seabed lying between the seaward extent of the states' jurisdiction and the seaward extent of federal jurisdiction. See [<http://www.mms.gov/aboutmms/ocsdef.htm>] visited on June 14, 2006.

CRS Products

CRS Report RL32315, *Oil and Gas Exploration and Development on Public Lands*, by Marc Humphries.

CRS Report RL31521, *Outer Continental Shelf Oil and Gas: Energy Security and Other Major Issues*, by Marc Humphries.

CRS Issue Brief IB10149, *Outer Continental Shelf: Debate Over Oil and Gas Leasing and Revenue Sharing*, by Marc Humphries.

Indian Lands and Resources. American Indian reservations (trust and non-trust lands), off-reservation trust lands, and Alaska Native corporation (non-trust) lands cover more than 116 million acres (5%) of the United States — about 71 million acres in the lower 48 states and about 45 million acres in Alaska. Indian tribes and individuals also have interests in non-Indian lands, waters, and other natural resources, as subjects of legal rights, objects of legal claims, culturally important areas, or economic resources.

On Indian trust lands (55 million acres), tribes have sought to increase their autonomy to develop energy resources by reducing the trust oversight role of the Department of the Interior. The Energy Policy Act of 2005 (P.L. 109-58) included provisions that allow energy-related leases and business agreements based on tribal approval only, rather than tribal and federal approval, but each tribe's approval of such energy leases would be governed by a Tribal Energy Resource Agreement (TERA) approved by the Secretary of the Interior. Approvals of TERAs must be based on new regulations required by the act, and the Interior Department held public consultations in January 2006 preparatory to drafting the TERA regulations. The act's provisions allowing tribal approval raised fears that tribes might avoid federal environmental reviews and might lose federal trust protections against losses of trust assets. The act contained provisions intended to retain both environmental requirements and a qualified level of trust asset protection.

The Energy Policy Act (in §1813) also required the Departments of the Interior and Energy to study energy rights-of-way across tribal lands, especially the amount of compensation sought by Indian tribes. The energy industry sought the study, while tribes consider it unnecessary. Interior and Energy held public scoping meetings on the study in March and April 2006.

Among significant topics for non-Indian areas, other than land claims, are rights to water and to wildlife resources. Indian tribes have asserted water rights claims in a number of western states, and many tribes are participating in negotiations or adjudications with states, local governments, and other water users. The 109th Congress may be asked to consider Arizona and New Mexico tribal water rights claims, if settlements are reached. Management of fish and wildlife on non-Indian lands and waters — for instance, salmon and other fish in the Klamath and Trinity River basins (CA and OR), marine mammals in the north Pacific, or caribou in ANWR — also has given rise to water rights, fishing, and development controversies that Congress has been asked to address.

CRS Products

CRS Report RS22056, *Native American Issues in the 109th Congress*, by Roger Walke.

CRS Issue Brief IB10019, *Western Water Resource Issues*, by Betsy A. Cody and Pervaze A. Sheikh.

Natural Disaster Mitigation. Efforts have accelerated in recent years to save lives and prevent property losses from natural disasters. Local land use plans, particularly in districts struck by multiple floods (referred to as *repetitive loss* areas), have been and continue to be revised. Development and construction patterns of the past have been altered, resulting in the relocation or elevation of homes and businesses to prevent flood damages. Many buildings susceptible to earthquake damage have been reinforced (*retrofitted*) to reduce the likelihood of damage or loss of life or injury. Homeowners in rural areas at risk from wildfires have been encouraged or required to make landscaping or construction changes to minimize such risks. Hurricane damages have been reduced in some coastal areas through adoption and enforcement of strict building codes.

These and other hazard mitigation actions may help achieve desired goals. At the same time, pressures remain to develop areas and use private property notwithstanding their disaster risk. As a result, considerable debate has developed on specific policies and the federal role in such actions. Areas of congressional debate and related questions include the following.

- The federal government historically has provided disaster assistance after state and local governments are overwhelmed by natural disasters. To what extent does federal disaster relief reduce community and individual incentives to undertake disaster mitigation and invest in vulnerable areas?
- The National Flood Insurance Program (NFIP) mandates that participating property owners and communities undertake specified mitigation actions. What impact will implementation of the Bunning-Bereuter-Blumenauer Flood Insurance Reform Act of 2004 (P.L. 108-264) have on development patterns?
- The federal government provides funds for hazard mitigation activities, including updating and modernizing flood zone maps. (See “Natural Hazards and Mapping Data Management” above.) Are current tools sufficient to help Congress establish priorities and determine the cost effectiveness of federal spending for these mitigation activities?

CRS Products

CRS Report RL32972, *Federal Flood Insurance: The Repetitive Loss Problem*, by Rawle O. King.

CRS Report RL33053, *Federal Stafford Act Disaster Assistance: Presidential Declarations, Eligible Activities, and Funding*, by Keith Bea.

Private Land Conservation. Natural resource questions related to private lands that attract congressional attention are many and varied. Some center on the effects of private land uses on natural resources, especially in rural areas. Agricultural production — including crop and livestock production — occupies about 41% of land in the lower 48 states, according to the National Agricultural Statistics Service of the Department of Agriculture (USDA). Production techniques can contribute to pesticide and nutrient runoff, soil erosion, air pollution, and loss of wildlife habitat. USDA administers many voluntary programs which provide technical assistance, funding, education, and research to help farmers address these problems. Some programs pay producers to retire lands that have high resource values, such as wetlands, while other programs help producers grow crops in ways that protect resources and environmental conditions. About 40 million acres of land (10% of all cropland) is retired through federal conservation programs, using multi-year rental agreements or easements. USDA has initiated a program to more precisely measure the effects of conservation programs on environmental problems, such as soil erosion and nutrient and pesticide runoff. Many of these conservation programs expire in FY2007, and the 109th Congress is discussing them as it holds field hearings and starts to consider alternative policies for the next farm bill.

Another set of resource questions is associated with development as it spreads from established urban centers into less developed areas, including farm land. This development can contribute to declines in habitat and environmental quality. Growth is largely managed by local and state governments, but Congress could limit, guide, or foster growth through federal programs to build roads, sewer and water lines, and public facilities. Growth also could be addressed in measures that designate sites or provide guidance for federal projects or facilities.

A third set of resource questions can occur where private and public ownership abut. At these locations, land use and resource protection goals may be incompatible, leading to conflict over such topics as predator and weed control, and habitat for important species. At the same time, private landowners often contend that public land management is inconsistent and unresponsive to their concerns. Congress has discussed some of these topics, largely on a case-by-case basis, but may look for more systematic responses. Currently, few federal programs apply in the same way to both public and private lands.

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CRS Report RS20011, *Managing Regional Growth: Is There a Role for Congress?*, by Jeffrey A. Zinn.

CRS Issue Brief IB96030, *Soil and Water Conservation Issues*, by Jeffrey A. Zinn.