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CRS Report for Congress

Water Resources Development Act (WRDA): Corps of Engineers Authorization Issues

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Nicole T. Carter, Coordinator
Resources, Science, and Industry Division

H. Steven Hughes, Pervaze A. Sheikh, and Jeffrey A. Zinn
Resources, Science, and Industry Division

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Water Resources Development Act (WRDA): Corps of Engineers Authorization Issues

Summary

Congress generally authorizes the water resources studies and projects of the U.S. Army Corps of Engineers in a Water Resources Development Act (WRDA) before appropriating funds to them. The 110th Congress seems likely to consider a WRDA. Like the 107th and 108th Congress, the 109th Congress considered but did not enact WRDA legislation. WRDA enactment previously had loosely followed a biennial schedule, but the most recent WRDA was enacted in 2000.

Issues that shaped WRDA debates in recent Congresses are expected to receive attention during the 110th Congress. WRDA issues likely will include the specifics of Corps reform measures (such as independent review and fish and wildlife mitigation provisions), as well as general concerns about the overall level of new authorizations in light of a backlog of authorized projects awaiting construction and maintenance funding. Different opinions about which projects to authorize, the cost-share for large authorizations, and other specifics also are anticipated. The Administration has expressed concerns about the level of authorizations in WRDA bills, as well as about various policy changes and specific projects.

Policy Changes. The proposed policy change that received the most attention in the 109th Congress was the independent review of Corps projects. Which projects to review (i.e., the scope of the review), which projects to exempt from review, who should perform and direct reviews, and how to treat recommendations resulting from the reviews are all likely components of review discussions during the 110th Congress. The Administration supports the general concept of independent peer review of proposed projects.

Coastal Louisiana. Authorization of activities to restore wetlands in coastal Louisiana are likely to be debated in a WRDA in the 110th Congress. On its last day, the 109th Congress passed legislation providing potentially significant sums of money from offshore oil and gas activities that could affect the scope of state wetland restoration efforts. In addition, the 110th Congress may consider other provisions authorizing Louisiana hurricane protection and navigation projects. The Administration objected to a number of provisions in the coastal Louisiana language of the WRDA bills considered by the 109th Congress.

Upper Mississippi River-Illinois Waterway (UMR-IWW). Authorization of spending for navigation improvements and ecosystem restoration on the UMR-IWW also is a likely component of WRDA discussions. Some environmental and taxpayer advocacy groups oppose the navigation improvements. Navigation and agricultural interests insist that these improvements are needed to reduce lock delays and maintain global competitiveness. Whether and how to link UMR-IWW navigation improvements and ecosystem restoration also are part of the debate.

Everglades Restoration. Authorization of federal projects planned as part of a larger effort to restore the Florida Everglades, which began with WRDA 2000, may also be part of the WRDA debate.

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Most Recent Developments

The 110th Congress seems likely to consider a Water Resources Development Act (WRDA) to authorize Corps water resources activities. During the 109th Congress, the House and Senate each passed a version of a WRDA bill (H.R. 2864), and conferees were named, but no further action was taken. The conference committee was faced with numerous differences between the House and Senate versions. Issues that have shaped the WRDA debates in recent Congresses are expected to receive attention during WRDA consideration by the 110th Congress.

Background and Analysis

The U.S. Army Corps of Engineers is a federal agency in the Department of Defense with military and civilian responsibilities. At the direction of Congress, the Corps plans, builds, operates, and maintains a wide range of water resources facilities in U.S. states and territories. The agency's traditional civil responsibilities have been creating and maintaining navigable channels and controlling floods; in the last two decades, Congress has increased the Corps' responsibilities in ecosystem restoration, municipal water and wastewater infrastructure, disaster relief, and other activities. The agency's regulatory responsibility for navigable water extends to issuing permits for private actions that might affect wetlands and other waters of the United States.

Congressional direction comes primarily through authorization and appropriations legislation and oversight activities. WRDA is the main legislative vehicle for Corps civil works authorizations. After background and discussion of WRDAs in recent Congresses, this report considers the current status of WRDA and major issues shaping WRDA consideration in the 110th Congress: changes to Corps project development practices and policies; coastal Louisiana wetlands restoration activities; UMR-IWW investments; and Everglades restoration projects.

WRDAs: Authorizing Corps Studies and Projects

WRDA legislation provides the Corps with authority to study water resource problems, construct projects, and make major modifications to projects. The provisions and contents of a WRDA are cumulative and new acts do not supersede or replace previous acts unless explicit language modifies, replaces, or terminates previous authorizations. A new WRDA adds to the original language and often amends provisions of previous acts.

Congress generally authorizes Corps water resources studies as part of a periodic consideration of a WRDA, or in a survey resolution by an authorizing committee — the House Transportation and Infrastructure Committee or the Senate Environment and Public Works Committee. Authorization to construct projects and changes to the policies guiding the Corps civil works program, such as project cost-share requirements, are typically in WRDAs.

Authorization of Corps projects generally does not expire; however, there is a process to deauthorize projects that have not received appropriations for seven years. Although Congress has historically authorized Corps projects as part of a WRDA, authorizations also have been included in appropriations bills, especially in years when a WRDA has been delayed or not enacted at all. Corps authorizing committees generally discourage authorizations in appropriations bills; authorization in appropriations bills may be subject to a point of order on the House floor.

Authorization establishes a project's essential character, which is seldom substantially modified during appropriations. The appropriations process, however, plays a significant role in realizing a project; appropriations determine which studies and projects receive federal funds.[1] Many authorized activities never receive appropriations. During the last 15 years, Congress has authorized not only navigation and traditional flood control projects, but also ecosystem restoration, environmental infrastructure assistance, beach nourishment, and other activities, increasing competition for construction funds. The Corps now has a "backlog" of more than 800 authorized projects, with more than 500 not consistently receiving construction appropriations.

WRDAs in Recent Congresses

WRDA 1986 (P.L. 99-662) marked the end of a decade-long stalemate between Congress and the executive branch regarding authorizations. In addition to authorizing numerous projects, WRDA 1986 resolved long-standing disputes related to cost-sharing, user fees, and environmental requirements. A cycle of biennial consideration of a WRDA has been loosely followed. Biennial *enactment* has been less consistent, with WRDAs enacted in 1988 (P.L. 100-676), 1990 (P.L. 101-640), 1992 (P.L. 102-580), 1996 (P.L. 104-303), 1999 (P.L. 106-53), and 2000 (P.L. 106-541). Many of these WRDAs authorized or modified the authorization of more than a hundred projects. Pressure to authorize new projects, increase authorized funding levels, and modify existing projects is often intense, thus promoting a fairly regular (if not always biennial) consideration of WRDA. WRDA legislation was considered, but not enacted, during the 107th, 108th, and 109th Congresses.

There is considerable support among some stakeholders for the 110th Congress to enact a WRDA bill because of the number of projects awaiting authorization and the length of time since Congress enacted the last WRDA in 2000. A number of factors that complicated WRDA passage in recent Congresses remain unresolved. For example, independent review of Corps projects is likely to be raised in the debate

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[1] For more information on the Corps' appropriations, see CRS Report RL33346, *Energy and Water Development*: *FY2007 Appropriations*, coordinated by Carl Behrens.

over a WRDA bill in the 110th Congress. The performance of the Corps-constructed hurricane protection infrastructure in New Orleans heightened concerns about the quality of the agency's work and increased support for changing the agency's processes and for stronger oversight of its projects. Provisions in the WRDA bills in the 109th Congress (often labeled "Corps reform" provisions) would have required independent review of most Corps project proposals.

Multi-billion dollar project authorizations also are likely elements of a WRDA debate. Project authorizations given attention in the 109th Congress that may continue to be the subject of debate during the 110th Congress include:

- Coastal Louisiana: actions to restore coastal wetlands over the next decade, and conditional pre-authorization of hurricane protection measures (no cost estimate available).
- Upper Mississippi River-Illinois Waterway (UMR-IWW): $2.0 billion for navigation improvements and $1.58 billion for ecosystem restoration.
- Everglades: $1.3 billion for the Indian River Lagoon-South project for wetlands and estuarine restoration and $0.36 billion for the Picayune Strand ecosystem restoration project.

Other controversial authorizations are for "environmental infrastructure" projects, which focus on either municipal water supply and wastewater treatment facilities or surface water resource protection and development. Before 1992, the Corps had not been involved in these types of projects.

Authorization of environmental infrastructure projects and billions of dollars in new activities is part of the debate about what the central missions of the agency are, and how best to focus the agency's resources and budget on projects that address those missions. The Bush Administration's position has been to recommend new authorizations only for priority projects in the agency's core mission areas of navigation, flood control, and ecosystem restoration, and to control the federal financial commitment through lower federal responsibility in the cost-share for projects. The Administration — in Statements of Administration Policy on WRDA bills of the 109th Congress written by the Office of Management and Budget (OMB) and in a September 22, 2006, letter from the Assistant Secretary of the Army to the Chairman of the House Committee on Transportation and Infrastructure — expressed concerns about the authorization levels in the bills considered by the 109th Congress, which ranged from approximately $11 billion to $15 billion.

Current Issues

Corps Reform

Support for changing the Corps' practices gained momentum in 2000 in the wake of a series of critical articles in the *Washington Post*, whistleblower allegations, and ensuing investigations. The failure of Corps-constructed floodwalls in New Orleans and the findings of subsequent investigations have strengthened support for some Corps reform measures.

Many advocates for change, primarily environmental groups, seek to modify Corps project planning (e.g., by changing the cost-benefit analysis and consideration of environmental impacts and benefits), to require additional review of Corps projects (e.g., through external review of Corps feasibility reports), and to strengthen environmental protection (e.g., through modifications to fish and wildlife mitigation requirements); these kinds of changes often are referred to as "Corps reform." Although Corps reforms were discussed in the 106th,[2] 107th, 108th, and 109th Congresses, no significant changes were enacted. The Corps argues that it has transformed itself by policies it has implemented since 2000; these include refinements in consideration of environmental benefits during planning, internal peer review, and guidance about optional external review.[3]

Other stakeholders argue that any changes should move the agency in a different direction than the measures pursued by environmental groups. Supporters of streamlining Corps practices, which include many of the nonfederal project sponsors for Corps projects, argue that the provisions supported by the environmental groups are unnecessary and add delay, cost, and uncertainty to an already lengthy project development and construction process. They want to increase the predictability of the Corps planning process by making changes such as standardizing planning procedures, models, and data; limiting the length of studies; and requiring tracking of the agency's construction backlog.

Independent Review. Independent review of Corps projects is likely to remain a central issue in the WRDA debate because of differences over not only the need for review, but also other aspects of a review process. The 110th Congress is likely to confront different opinions on whether to limit review to technical issues or to include policy issues; which projects, documents, and planning tools to exempt from review; who should perform and direct the reviews; what responses to review recommendations would be required; and whether review would be conducted on projects under construction. The Administration supports some independent peer review.

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[2] Although the 106th Congress did not enact Corps changes, it asked the National Academy of Sciences to review Corps planning in §216 of WRDA 2000. In April 2004, the Academy's National Research Council (NRC) published four reports from this review. Each report recommended changes in Corps practices and the larger federal water resources management and organizational context. The four 2004 National Research Council reports (Washington, DC: National Academy Press) were *Adaptive Management for Water Resources Planning; Analytic Methods and Approaches for Water Resources Project Planning; River Basins and Coastal Systems Planning Within the U.S. Army Corps of Engineers;* and *U.S. Army Corps of Engineers Water Resources Planning: A New Opportunity for Service.*

[3] The Corps released five new policy documents in 2005 to be tested as guidance for the agency's planning activities, which are available at [http://www.usace.army.mil/publications/eng-circulars/ec-cw.html]. One, on collaborative planning of Corps projects, is an update to the agency's planning guidance. Another set out processes for the peer review of scientific, engineering, and economic information and assessments used to inform decision-making. Another established a Civil Works Review Board that approves the final planning reports before submitting them to the Chief of Engineers.

Coastal Louisiana

The Corps has a prominent role in New Orleans and southeast Louisiana hurricane recovery efforts, including repairing damaged floodwalls and levees and strengthening hurricane resiliency through infrastructure fortification and long-term wetlands restoration. The Corps is repairing and strengthening much of the area's hurricane protection levees and floodwalls using authority and funding provided in supplemental appropriations legislation.

The 109th Congress, on the last day of the session (December 9, 2006), passed the Gulf of Mexico Energy Security Act of 2006 (P.L. 109-432); it shares 37.5% of certain offshore oil and gas revenues with four specified Gulf coast states, including Louisiana. These funds, which may be almost $350 million over the next decade and more than $25 billion over the next 45 years, according to a July 2006 OMB projection, are to be used for projects and activities to provide coastal protection, including conservation, coastal restoration, hurricane protection, and infrastructure directly affected by coastal wetland losses, as well as fish and wildlife mitigation. The law increases funding available in Louisiana to commit to the nonfederal portion of restoration and hurricane protection efforts that may be considered for authorization within the context of WRDA during the 110th Congress.

Wetlands Restoration and Protection. Coastal wetlands in Louisiana have been disappearing at a high rate, as a result of both human activities and natural processes. Those losses are forecast to continue if no actions are taken to reverse current trends. Federal agencies, led by the Corps and in coordination with the state, developed several versions of plans to slow the rate of loss and restore some of these wetlands. The current Corps feasibility report was released in November 2004, before Hurricanes Katrina and Rita. It received a favorable recommendation in January 2005 in a report by the Corps' Chief of Engineers. The report recommended measures totaling an estimated $1.997 billion — $1.123 billion for projects and programs for immediate authorization, $0.145 billion for investigations of "large-scale concepts" that have already been authorized, and $0.728 billion for future authorization of ten restoration features. The Corps' feasibility report proposed activities to divert water from the Mississippi River to convey sediments into nearby wetlands, and to help stabilize the coastline. The federal government would pay about 64% of the total estimated cost. In the diversions, wetlands would gradually reestablish themselves on newly deposited sediments.

Hurricanes Katrina and Rita altered the debate over wetlands restoration proposals and the cost-share for restoration investments. Many restoration proponents are calling for more extensive efforts than were in the versions of WRDA passed by the House and Senate during the 109th Congress; generally, their support has centered on a $14 billion proposal developed by a team of state and federal agencies in the *Coast 2050 Plan* from 1998.[4] Decisions facing Congress include whether to authorize any coastal Louisiana restoration effort, the extent of the

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[4] Louisiana Coastal Wetlands Conservation and Restoration Task Force and the Wetlands Conservation and Restoration Authority, *Coast 2050: Toward a Sustainable Coastal Louisiana* (Baton Rouge, LA, 1998), available at [http://www.lacoast.gov/Programs/2050].

authorized effort, and how to prioritize and find synergies between wetlands restoration and hurricane protections. These decisions may take place in the context of WRDA or other legislation.

While generally supporting coastal Louisiana wetlands restoration language in the 109th Congress WRDA bills, the Administration's position differed from the legislative language in many respects. For example, an OMB Statement of Administration Policy on the a version of the Senate bill recommended a single generic (programmatic) authorization covering all studies, construction, and science activities, rather than the separate authorizations provided in the pending legislation. The Administration argued that this would provide more flexibility and expediency. The OMB Statements of Administration Policy for the 109th Congress WRDA bills recommended a cost-share of 50% federal-50% nonfederal.

Hurricane Protection and Navigation. In addition to provisions authorizing coastal wetlands restoration efforts, the 109th Congress WRDA bills also contained numerous provisions related to Corps hurricane protection and navigation projects in Louisiana. Both versions would have authorized the $0.9 billion Morganza to the Gulf of Mexico project; this hurricane protection project had been recommended by the Corps' Chief of Engineers in 2002.

Specific measures proposed after Hurricane Katrina to fortify the structural elements of the hurricane protection system protecting New Orleans and other portions of southeast Louisiana may require congressional authorization. H.R. 5461 — Meeting Authorization Requirements for the Coast Act of 2006 — from the 109th Congress provides examples of some of these measures. These specific measures were absent from the Senate-passed version of a WRDA bill in the 109th Congress, and the pre-Katrina House-passed bill. Although the Senate-passed H.R. 2864 did not address these specific authorizations, it included general provisions related to authorizing hurricane protection projects for coastal Louisiana. The Senate version contained a provision that would require a report on comprehensive hurricane protection to the Senate Environment and Public Works Committee and the House Transportation and Infrastructure Committee, based on the results of an ongoing study (which was authorized in the Energy and Water Development Appropriations Act for FY2006, P.L. 109-103). The Senate version would have provided the Secretary of the Army authority to construct the projects identified in the report following committee resolutions by the two committees. This would have differed from the typical Corps process of projects requiring specific authorization by Congress in enacted legislation before appropriations are directed to the Corps for construction activities. The Administration in its Statement of Administration Policy on the Senate version objected to conditional pre-authorization of projects; its statement noted that the projects were yet to be identified, and the costs were likely to measure in the tens of billions.

The Senate version included provisions for financial assistance for moving deep-draft navigation facilities that may be affected by the possible permanent closure of the Mississippi River Gulf Outlet (MRGO). For more information on the MRGO, see CRS Report RL33597, *Mississippi River Gulf Outlet (MRGO): Issues for Congress*, by Nicole T. Carter and Charles V. Stern.

Upper Mississippi River-Illinois Waterway

The Upper Mississippi River and Illinois Waterway (UMR-IWW) is at the center of a debate over the future of inland navigation, the restoration of rivers used for multiple purposes, and the reliability and completeness of the Corps analyses justifying investments. Consequently, authorization of investments in navigation and ecosystem restoration of the UMR-IWW is likely to have a role in WRDA debates in the 110th Congress; topics being debated include the urgency, necessity, and national benefit of expanded UMR-IWW navigation capacity and ecosystem restoration.

The UMR-IWW is a 1,200-mile, 9-foot-deep navigation channel created by 37 lock-and-dam sites and thousands of channel structures. The UMR-IWW makes commercial navigation possible between Minneapolis and St. Louis on the Mississippi River, and along the Illinois Waterway from Chicago to the Mississippi River. It permits upper midwestern states to benefit from low-cost barge transport. Since the 1980s, the system has experienced increasing traffic delays, purportedly reducing competitiveness of U.S. products in some global markets. The river is also losing the habitat diversity that allowed it to support an unusually large number of species for a temperate river system. This loss is partially attributable to changes in the distribution and movement of river water caused by navigation structures and operation of the 9-foot navigation channel.

The Corps' feasibility report failed to significantly reduce the debate over the urgency, necessity, and national benefit of expanded navigation capacity.[5] Following the Corps' Chief of Engineers approval of the completed feasibility report on UMR-IWW improvements in December 2004,[6] the Assistant Secretary of the Army (Civil Works) requested that an economic reevaluation of the navigation investments be made available by the end of September 2007.

The Corps' ecosystem restoration plan has been less controversial than the navigation plan. General agreement exists that the ecosystem is declining, and general support exists for the 15-year increment of the Corps' 50-year ecosystem restoration plan. Debate over the restoration proposal focuses primarily on

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[5] For a 2004 CRS analysis of key factors affecting the attractiveness of these navigation investments, see CRS Report RL32470, *Upper Mississippi River-Illinois Waterway Navigation Expansion: An Agricultural Transportation and Environmental Context*, coordinated by Randy Schnepf. The National Research Council (Washington, DC: National Academy Press) has reviewed and reported on the UMR-IWW proposals in *Inland Navigation System Planning: The Upper Mississippi River-Illinois Waterway* (2001); *Review of the U.S. Army Corps of Engineers Upper Mississippi-Illinois Waterway Restructured Study: Interim Report* (2003); and *Review of the U.S. Army Corps of Engineers Restructured Upper Mississippi River-Illinois Waterway Feasibility Study: Second Report* (2004).

[6] U.S. Army Corps of Engineers, *Final Integrated Feasibility Report and Programmatic Environmental Impact Statement for the UMR-IWW System Navigation Feasibility Study* (Rock Island District, St. Louis District, St. Paul District, Sept. 24, 2004), pp. 230 and 490. Available at [http://www2.mvr.usace.army.mil/umr-iwwsns/documents/FINAL_FES_EIS_Report_Cover(2004).pdf].

implementation strategies, including linkages between the ecosystem restoration and navigation investments, and the federal-nonfederal cost-share for restoration activities.[7] OMB's Statements of Administration Policy have been critical of the WRDA bills considered by the 109th Congress because of the estimated 91% federal-9% nonfederal cost-share for ecosystem restoration for the Upper Mississippi River Basin. The Administration recommended a 50%-50% cost-share.

Everglades Restoration

The largest Corps ecosystem restoration effort to date is in the Florida Everglades, with a three-decade, $10.9 billion restoration program. Congress approved the Corps' implementation of the Comprehensive Everglades Restoration Plan (CERP) as a framework for Everglades restoration in WRDA 2000. The principal objective of CERP is to redirect and store freshwater currently diverted away from the Everglades to the ocean, and to use the retained water to restore the natural hydrologic functions of the south Florida ecosystem. WRDA 2000 authorized an initial set of CERP restoration projects, as well as $700 million in federal funds to implement them, and established a process for additional projects contemplated in the 1999 CERP plan to be developed and authorized. Authorization language for two of these additional projects — Indian River Lagoon-South (IRL-S) wetlands and estuarine restoration and the Picayune Strand ecosystem restoration (also known as Southern Golden Gates Estates ecosystem restoration) — was considered in WRDA bills in the 109th Congress. These two projects are the first to be developed under the process established in WRDA 2000; consequently, some view their fate as a test case of the CERP framework. Consideration of WRDA in the 110th Congress will likely include these two projects.

Indian River Lagoon. The Indian River Lagoon is a 156-mile-long estuary located at the mouth of the St. Lucie River in eastern Florida. The IRL-S has been altered by unnaturally large and poorly timed freshwater discharges arriving from the St. Lucie Canal and other elements of the Central and Southern Florida drainage project. These discharges have altered water quality and may have contributed to depleted water supplies in the Everglades ecosystem. The significance of these ecosystem problems is exacerbated by the high biodiversity found in the IRL-S.

A project for estuarine and wetland ecosystem restoration for the IRL-S has been submitted to Congress and recommended for authorization following a favorable review by various levels of the Administration. The recommended plan would divert canal discharges to storage reservoirs and for dispersal throughout the IRL-S ecosystem. Storage areas would improve native habitat (which is a goal of the larger Everglades restoration plan) and reduce phosphorus and nitrogen loads into the IRL-S. The recommended project has evolved since the activities proposed in CERP; in that document, the estimated cost for the activities that now make up the recommended IRL-S project was less than $1 billion and consisted primarily of

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[7] For more information, see CRS Report RL32630, *Upper Mississippi River System: Proposals to Restore an Inland Waterway's Ecosystem*, by Kyna Powers and Nicole T. Carter.

artificial storage reservoirs. The 2006 cost estimate for this project is $1.3 billion. The federal share would be approximately $650 million.

Some supporters of the Indian River Lagoon restoration project argue that the project will improve estuarine and wetlands resources in the lagoon and water quality in the larger Everglades ecosystem. Others, however, suggest that even though the project will help the estuarine ecosystem, it will not completely attenuate the damaging freshwater flows. Critics of the project also argue that IRL-S restoration benefits are largely local, with little impact on the larger Everglades ecosystem. Another concern that has been raised is increasing project costs.

Picayune Strand Restoration. The Picayune Strand restoration project (also known as the Southern Golden Gates Estates project), if authorized, is designed provide freshwater flows to natural areas, lower freshwater surges to the ocean, and improve water quality. The project is awaiting a favorable review by OMB before being submitted by the Administration to Congress for authorization. The nonfederal project sponsor (the State of Florida) has spent nearly $100 million on land acquisition; most of the remaining project expenses are for design and construction of the project. The 2004 cost estimate for the project is $362 million; the federal share would be approximately $181 million. Nearly 98% of the land needed for the project is in public ownership and all 1,800 parcels (representing almost 1,500 landowners) have been acquired, some through eminent domain. Some stakeholders are concerned that the accessibility of Picayune Strand for recreation will be lowered due to restoration activities. The state has responded that it will provide areas for off-road vehicles and other recreational activities.

Concluding Remarks

Recent debates about authorizations for the Corps' water resources activities have taken place in the context of omnibus WRDA bills. Like WRDA debates in recent Congresses, the debate in the 110th Congress likely will be dominated by different opinions over the desirability and need for changing the agency's policies, practices, and accountability, and for authorizing multi-billion dollar investments in ecosystem restoration, navigation, and flood and storm damage reduction measures. The growing backlog of Corps construction and maintenance activities, constraints on federal water resources funds, the nation's aging water resources infrastructure, failure of the Corps-constructed floodwalls in New Orleans during Hurricane Katrina, and increased attention to the flood risks of urban areas have raised concerns about continuing the practice of adding billions of dollars in authorizations to the Corps' portfolio of activities through omnibus WRDA legislation. However, many factors maintain the popularity of this vehicle among legislators, and nonfederal project sponsors create demand for its passage, prompting its likely continued use.

Water resources management and policy issues facing the Corps and the nation may arise outside of consideration of a WRDA bill. These issues may receive legislative action in other vehicles, be the subject of amendments proposed to WRDA bills or appropriations legislation, or be the subject of congressional oversight. An example of an ongoing water resource issue affecting the Corps and the nation that

may receive congressional attention outside of WRDA is multi-use river management. An array of interests are questioning current river management practices across the nation and how management can balance benefits (and harm) across multiple river uses, including in-stream uses. How the nation uses and values its rivers has changed over time. Rivers now are seen as providing not only economic benefits but also recreational opportunities and species habitat. This shift has resulted in a reexamination by the courts, agencies, and stakeholders of the distribution of economic and other benefits of management alternatives. For example, Missouri River management raises some fundamental questions about water resources management, such as whether some river uses should take priority over others (e.g., threatened and endangered species protection over inland waterway transportation, or vice versa) and how precedence should be decided (e.g., balancing competing uses versus maximizing economic benefits). The river's management is a prime example of the complex issues in which the Corps is embroiled that often result in congressional consideration through oversight or legislative language in WRDA or other bills.

A broad water resource issue that is unlikely to be directly addressed by WRDA, but is significant to the agency and the nation, is the federal role in water resources. Hurricane Katrina raised questions about this role; in particular, the disaster brought attention to the trade-offs in benefits, costs, and risks of the current division of responsibilities among local, state, and federal entities for flood mitigation, preparedness, response, and recovery. The question of the federal role also is raised by increasing competition over water supplies, not only in the West but also for urban centers in the East (e.g., Atlanta), which have resulted in a growing number of communities seeking financial and other federal assistance, actions, and permits related to water supply development (e.g., desalination and water reuse projects, reservoir expansions and reoperations). Congress rarely chooses to pursue broad legislation on federal water resources policies for many reasons, including the challenge of enacting changes that affect such a wide breadth of constituencies. Instead, Congress traditionally has pursued incremental changes through WRDA bills and other legislation, and this pattern seems likely to continue.

For Additional Reading

Background

CRS Report RS20866, *The Civil Works Program of the Army Corps of Engineers: A Primer*, by Nicole T. Carter and Betsy A. Cody.

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

Authorizations and WRDA

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Coastal Louisiana

CRS Report RS22110, *Coastal Louisiana Ecosystem Restoration: The Recommended Corps Plan*, by Jeffrey Zinn.

CRS Report RS22467, *Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA): Effects of Hurricanes Katrina and Rita*, by Jeffrey A. Zinn.

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

CRS Report RL33597, *Mississippi River Gulf Outlet (MRGO): Issues for Congress*, by Nicole T. Carter and Charles V. Stern.

CRS Report RL33188, *Protecting New Orleans: From Hurricane Barriers to Floodwalls*, by Nicole T. Carter.

Upper Mississippi River-Illinois Waterway

CRS Report RL32470, *Upper Mississippi River-Illinois Waterway Navigation Expansion: An Agricultural Transportation and Environmental Context*, Coordinated by Randy Schnepf.

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

CRS Report RL32915, *Upper Mississippi River-Illinois Waterway Investments: Legislation in the 109th Congress*, by Nicole T. Carter.

Everglades Restoration

CRS Report RS20702, *South Florida Ecosystem Restoration and the Comprehensive Everglades Restoration Plan*, by Pervaze A. Sheikh and Nicole T. Carter.

CRS Report RS22048, *Everglades Restoration: The Federal Role in Funding*, by Pervaze A. Sheikh and Nicole T. Carter.