

An hourglass-shaped graphic with a globe inside. The top bulb is dark blue, and the bottom bulb is light blue. The globe is a light blue color with darker blue outlines for continents. The hourglass is centered on the page.

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February 2, 2009

Congressional Research Service

Report RL33504

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

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

November 20, 2007

**Abstract.** 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, including changes to Corps project development practices and policies, coastal Louisiana wetlands restoration activities, UMR-IWW investments, and Everglades restoration projects.

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# CRS Report for Congress

## Water Resources Development Act (WRDA) of 2007: Corps of Engineers Project Authorization Issues

**Updated November 20, 2007**

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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**Prepared for Members and  
Committees of Congress**

# Water Resources Development Act (WRDA) of 2007: Corps of Engineers Project Authorization Issues

## Summary

Congress generally authorizes new Army Corps of Engineers water resources studies and projects in a Water Resources Development Act (WRDA) before appropriating funds to them. WRDA 2007 (P.L. 110-114) became law on November 9, 2007. This was the first congressional override of a veto by President George W. Bush. WRDA 2007 authorized approximately 900 Corps projects, studies, and modifications to existing authorizations.

A central issue in the debate over WRDA 2007 was its level of authorizations. A Congressional Budget Office analysis estimated its 15-year impact at \$23 billion. The President returned WRDA 2007 to Congress, citing its lack of fiscal discipline and priorities. The Administration supported limiting authorizations to projects in the Corps' primary missions (navigation, flood and storm damage reduction, and ecosystem restoration) that demonstrate an economic and environmental justification for federal participation. Other issues that shaped the WRDA 2007 debate included different opinions on Corps reform measures (such as independent review and project planning) and the need for prioritizing among authorized projects, increases in the federal cost for some water resources activities and nonfederal cost share credits, and expansion of the Corps' authorizations in municipal water and wastewater infrastructure (called *environmental infrastructure* projects).

WRDA 2007 authorized more than \$2 billion in construction activities to restore wetlands in coastal Louisiana, as well as \$6 billion in actions to improve hurricane protection in New Orleans. Authorizations for navigation improvements (\$2.2 billion) and ecosystem restoration (\$1.7 billion) on the Upper Mississippi River-Illinois Waterway, and Florida Everglades restoration (around \$2 billion), also are included. WRDA 2007 created a Committee on Levee Safety to make recommendations for a national levee safety program. It also established a requirement for independent technical review of plans for Corps projects exceeding \$45 million and a process for determining which flood and storm damage construction activities would undergo a safety review.

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# Water Resources Development Act (WRDA) of 2007: Corps of Engineers Project Authorization Issues

## Most Recent Developments

Congress generally authorizes new Army Corps of Engineers water resources studies and projects before appropriating funds for these activities. Authorization typically occurs in a Water Resources Development Act (WRDA). The 110<sup>th</sup> Congress overrode a presidential veto of WRDA 2007. WRDA 2007 (P.L. 110-114) became law on November 9, 2007, authorizing approximately 900 projects, studies, and modifications to existing authorizations. The President vetoed WRDA 2007, citing “excessive authorizations” and a lack of fiscal discipline and priorities. This was the first congressional override of a veto by President George W. Bush. (For information on the override process, see CRS Report RS22654, *Veto Override Procedure in the House and Senate*, by Elizabeth Rybicki.)

**Authorization Level.** A central issue in the debate over WRDA 2007 was its level of authorizations. A Congressional Budget Office (CBO) analysis of the conference report estimated the 15-year impact at \$23 billion. The conference report’s authorization level exceeded the estimates for the House and Senate versions of the bill, which were around \$14 billion and \$15 billion. Principal among the reasons for the higher authorization levels in the conference report were that

- it included a majority of authorizations in the House and Senate bills, and many of the authorizations were only in one of those bills;
- the Army Corps in August 2007 increased federal cost estimates for New Orleans hurricane protection by approximately \$3.6 billion (previous estimates had been for approximately \$2.2 billion in federal funding beyond the supplemental appropriations already provided for this work);
- and, to a lesser extent, approximately 20 provisions in the conference report were in neither the House bill nor the Senate bill, including a more than \$250 million modification to the Santa Ana (CA) River Mainstem project.<sup>1</sup>

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<sup>1</sup> Senate floor consideration of the conference report was shaped by debate over whether restrictions on adding provisions during conference that were in neither the House nor the Senate bill applied to authorization bills like WRDA.

The Administration supported limiting authorizations to projects in the Corps' primary missions (navigation, flood and storm damage reduction, and ecosystem restoration) that demonstrated an economic and environmental justification for federal participation.

**Agency "Reform" Issues.** Throughout congressional consideration of WRDA 2007, independent review remained a debated policy issue. Conferees were faced with the challenge of reconciling the House and Senate language. The provisions had differed on which projects could be reviewed (i.e., the scope of the review), which projects could be exempted or included for review, who would be performing and directing the reviews, and how recommendations resulting from the reviews would be treated. WRDA 2007 used the technical review approach of the House bill, rather than the Senate's broader policy review. WRDA 2007 did not create a separate office of independent review, which had been part of the Senate language. WRDA 2007 also established a safety assurance review process for hurricane protection and flood damage projects; it gave the Corps' Chief of Engineers discretion regarding when to call for a safety review.

**Regional Project Authorizations.** Other issues that shaped WRDA 2007 included different opinions about the specifics of project authorizations, including the billion-dollar regional authorizations for:

- Coastal Louisiana wetlands restoration, flood and storm protection, and navigation projects (including authorization of the Morgana-to-the Gulf project, and the authorization levels and specifics of wetlands restoration activities for coastal Louisiana);
- Florida Everglades ecosystem restoration projects (including authorization of activities under the Modified Water Deliveries Project); and
- Upper Mississippi River Illinois Waterway (UMR-IWW) navigation and ecosystem restoration projects (including concerns about linking the funding of navigation and restoration activities).

**Other Issues.** WRDA 2007 created a Committee on Levee Safety to make recommendations for a national levee safety program. It also authorized the Corps to participate in more than 200 municipal water and wastewater infrastructure projects (called *environmental infrastructure* at the Corps). Some taxpayer groups spoke out against these authorizations, arguing that other government agencies had existing, competitive programs to assist with these municipal infrastructure needs,<sup>2</sup> and that these projects were outside the scope of the agency's core missions. Proponents of environmental infrastructure argued that these authorizations were necessary to assist projects that were ineligible or unsuccessful at obtaining funds through other programs.

Some new issues entered the WRDA debate during consideration by the 110<sup>th</sup> Congress. For example, some environmental groups raised concerns that WRDA

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<sup>2</sup> For a description of the existing programs, see CRS Report RL30478, *Federally Supported Water Supply and Wastewater Treatment Programs*, by Betsy A. Cody et al.

2007 did not directly address the impact of climate change on flood risk across the nation. Interest in directing the Corps to study the energy and fuel-related consequences of dam removal also was raised.

## 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.

WRDA is the main legislative vehicle for Corps civil works authorizations. After providing background information on WRDA, this report considers the major issues that shaped WRDA 2007 in the 110<sup>th</sup> Congress, including 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 WRDA, or in a resolution by an authorizing committee — the House Transportation and Infrastructure Committee (T&I) or the Senate Environment and Public Works Committee. Authorization for construction 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.<sup>3</sup> 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, and other activities, increasing competition for construction funds. Prior to WRDA 2007, the Corps had an existing “backlog” of more than 800 authorized projects with more than 500 projects not consistently receiving construction appropriations. Before the enactment of WRDA 2007, the Corps estimated the construction backlog at \$39 billion for authorized projects that remained active Corps projects.

## WRDAs in Past Congresses

WRDA 1986 (P.L. 99-662) was a milestone for the Corps; it marked the end of a decade-long stalemate between Congress and the executive branch regarding authorizations, and changed the relationship and cost-sharing requirements between the agency and the nonfederal sponsors of its projects. It also established user fees and environmental requirements. Pressure to authorize new projects, increase authorized funding levels, and modify existing projects is often intense, thus promoting consideration of WRDA. Enactment, however, may be complicated because of a more general debate about the Corps’ missions, and how best to use the agency’s resources and budget. Since 1986, 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). After 2000, the 107<sup>th</sup>, 108<sup>th</sup>, and 109<sup>th</sup> Congresses considered but did not enact WRDA legislation.

## WRDA 2007 Issues

Because of the number of projects awaiting authorization and the length of time since Congress enacted the last WRDA in 2000, there was considerable support among some stakeholders for the 110<sup>th</sup> Congress to enact a WRDA 2007. The Bush Administration did not send Congress a WRDA proposal; instead, it expressed its position through Administration letters and Statements of Administration Policy by the Office of Management and Budget (OMB). A reason cited by the President for vetoing WRDA 2007 was billions in new authorizations (including billions for projects that the Administration considers to be outside the core mission of the agency) that create unrealistic expectations among local communities of likely federal actions and funding. The Administration also opposed provisions that would increase the federal financing of Corps projects.

## Corps “Reform” and Policy Changes

Some stakeholders sought changes to the agency and its procedures like those in S. 564, the Water Resources Planning and Modernization Act of 2007; others

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<sup>3</sup> For more information on the Corps’ appropriations, see CRS Report RL33346, *Energy and Water Development: FY2007 Appropriations*, coordinated by Carl Behrens.



opposed changes to the Corps. 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. Many of the allegations raised were particularly critical of the Corps UMR-IWW navigation studies that were underway in the 1990s. The failure of Corps-constructed floodwalls in New Orleans and the findings of subsequent investigations strengthened support for some Corps reform measures and heightened concerns about the quality of the agency's work.

Many advocates for change, primarily environmental groups, sought to modify Corps project planning (e.g., by changing the benefit-cost 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 were referred to as "Corps reform." Although Corps reforms were discussed in the 106<sup>th</sup>,<sup>4</sup> 107<sup>th</sup>, 108<sup>th</sup>, and 109<sup>th</sup> Congresses, no significant changes were enacted. The Corps argued that it had transformed itself by policies it had implemented since 2000. These included refinements in consideration of environmental benefits during planning, internal peer review, and guidance about optional external review.<sup>5</sup>

Other stakeholders argued that any changes should have moved the agency in a different direction than the measures pursued by environmental groups. Supporters of streamlining Corps practices, which included many of the nonfederal sponsors for Corps projects, argued that the provisions supported by the environmental groups were unnecessary and would add delay, cost, and uncertainty to an already lengthy project development and construction process. They wanted 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.

WRDA 2007 contains a range of provisions that changed Corps policies, including an independent review provision. The House and Senate provisions had differed on which projects could be reviewed (i.e., the scope of the review), which

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<sup>4</sup> Although the 106<sup>th</sup> 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 NRC reports were (1) *Adaptive Management for Water Resources Planning*; (2) *Analytic Methods and Approaches for Water Resources Project Planning*; (3) *River Basins and Coastal Systems Planning Within the U.S. Army Corps of Engineers*; and (4) *U.S. Army Corps of Engineers Water Resources Planning: A New Opportunity for Service* (Washington, DC: National Academy Press).

<sup>5</sup> The Corps released five new policy documents in 2005 for the agency's planning activities, 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. A third established a Civil Works Review Board that approves the final planning reports before submitting them to the Chief of Engineers.

projects could be exempted or included for review, who would be performing and directing the reviews, and how recommendations resulting from the reviews would be treated. The Senate version included requirements for independent safety reviews of the construction of Corps flood and storm damage reduction projects, a requirement prompted by the floodwall failures in New Orleans. No similar safety review was included in the House bill.

WRDA 2007 includes a safety assurance review for hurricane protection and flood damage projects, but gives the Corps' Chief of Engineers discretion regarding when to call for a safety review. Overall, WRDA 2007 adopted the technical review approach of the House bill, rather than the Senate's broader policy review, and did not create a separate office of independent review, which had been part of the Senate language. It also adopted the sunset provision for the independent review requirements from the House bill but extended the deadline from four years to seven years. WRDA 2007 allowed the Chief of Engineers to exempt from review projects considered routine, some projects involving rehabilitation and replacement, and projects that pose minimal loss of life risks.

## Environmental Infrastructure

The Administration, some Members of Congress, and some stakeholders oppose authorizations for projects outside the agency's core mission areas of navigation, flood control, and ecosystem restoration; in particular, they oppose *environmental infrastructure* projects (i.e., municipal water and wastewater projects). Before 1992, the Corps had not been involved in these types of projects. In recent years, appropriations for Corps environmental infrastructure have ranged from \$94 million in the FY2007 work plan for the agency to more than \$200 million in some years, representing between 2% and 4% of the agency's budget. Opponents of Corps involvement in environmental infrastructure argue that other government agencies have existing, competitive programs to assist with these municipal infrastructure needs. Proponents of environmental infrastructure argue that these Corps projects are necessary because existing federal programs are unable to address all the existing needs, either because of program eligibility criteria or constrained resources. WRDA 2007 authorized more than 200 new Corps environmental infrastructure projects.

## 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 continues to repair and strengthen many of the area's hurricane protection levees and floodwalls using authority and funding provided in supplemental appropriations legislation; funding for this work is an ongoing appropriations issue.

The 109<sup>th</sup> 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 may total almost \$350 million over the next decade and more

than \$25 billion over the next 45 years, according to an OMB projection from July 2006. They 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 authorized in WRDA 2007.

**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 \$2.0 billion — \$1.1 billion for projects and programs for immediate authorization, more than \$0.1 billion for investigations of “large-scale concepts” that have already been authorized, and \$0.7 billion for future authorization of 10 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. (It is important to note that even if this plan is fully implemented, losses will continue, but at a much slower rate.) The federal government would pay about 65% of the total estimated cost. In the diversions, wetlands would gradually reestablish themselves on newly deposited sediments.

The Coastal Louisiana title of WRDA 2007, Title VII, used the Corps feasibility report as a starting point. To reflect concerns raised and knowledge gained by Hurricanes Katrina and Rita, additional provisions were added by the House and Senate, and further changes were made in the conference report. The conference report makes a number of adjustments to language on what is to be considered in restoration, often combining language from the two chambers' bills. The enacted title authorizes more projects than were included in either of the passed bills, either directly if the Secretary determines they are feasible, or with the approval by resolution of the two authorizing committees: the House Transportation and Infrastructure Committee and the Senate Environment and Public Works Committee.

More specifically, Title VII authorized the development and periodic update of a comprehensive plan for coastal Louisiana, and listed several planning priorities, including not only wetlands creation but also flood protection. It also created a federal-state task force to participate in developing and implementing the plan, supported by expert working groups. The task force makes recommendations to the Secretary and submits a biennial report to Congress. Title VII also authorized funding for activities in several areas the task force might examine, including \$10 million for modification of existing projects; \$100 million for related scientific and technical work; \$100 million for demonstration projects (with no single project exceeding \$25 million); and \$100 million to explore using dredged materials in restoration.

Title VII authorized a number of specific projects — \$828.3 million for five restoration projects that are close to ready to start (including \$105.3 million for

environmental restoration work that would not have any navigation benefits for the controversial Mississippi River Gulf Outlet). The Corps must provide a report to the authorizing committees describing any modifications before it starts any of these five projects. It also limited cost increases for each of these initial projects to 150% of the current estimated cost. It also authorized the Corps to carry out four additional projects that are in earlier stages of planning with a total estimated cost of \$184.6 million if they are determined to be feasible, and to submit feasibility reports to the authorizing committees by the end of 2009, and to provide feasibility reports on six other projects with a total estimated cost of \$534.6 million by the end of 2008. The Corps can carry out any of these 10 projects if a favorable Chief's report is completed by the end of 2010 and both authorizing committees have approved a resolution. Title VII allows the Secretary to forgo economic evaluations if these projects' environmental benefits to the coastal Louisiana ecosystem are demonstrated. In addition to the reports to Congress listed above, Title VII called for several other status reports on progress of the work, the most significant of which may be a comprehensive overview to be provided six years after the date of enactment.

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 those authorized in WRDA 2007; 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.<sup>6</sup> Decisions that Congress may face in the future include whether to authorize any additional coastal Louisiana restoration efforts beyond those authorized in WRDA 2007, and whether to seek additional synergies between wetlands restoration and hurricane protection. At the state level, the Louisiana Coastal Protection and Restoration Authority released a draft plan in February 2007 titled *Integrated Ecosystem Restoration and Hurricane Protection: Louisiana's Comprehensive Master Plan for a Sustainable Coast*.

**Hurricane Protection and Navigation.** In addition to provisions authorizing coastal wetlands restoration efforts, WRDA 2007 also contains numerous provisions related to Corps hurricane protection and navigation projects in Louisiana. It authorized multiple activities to improve New Orleans-area flood and hurricane storm damage reduction projects, including work to provide a level of protection that would protect the area from a 100-year flood, and thus qualify the area for the National Flood Insurance Program (NFIP). Many of these activities were already appropriated funds through the \$7 billion in supplemental appropriations legislation in FY2005 and FY2006 for coastal Louisiana hurricane storm protection. Since the supplemental funds were appropriated, revised estimates for the work indicate that nearly \$6 billion in additional federal appropriations would be needed to complete the activities.<sup>7</sup>

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<sup>6</sup> 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.coast2050.gov/>].

<sup>7</sup> On August 22, 2007, the Corps announced over \$6 billion in increases in cost estimates for New Orleans hurricane protection since the supplemental appropriations in 2006 (see the (continued...))

WRDA 2007 provided for expedited consideration of measures analyzed as part of a comprehensive hurricane protection study for the larger coastal Louisiana area. WRDA 2007 established that legislative proposals submitted by the President based on the results of the study shall be eligible for expedited consideration by the Senate. Expedited consideration would consist of a 45-legislative-day window for Senate Committee action. WRDA 2007 also authorized other hurricane protection and navigation projects, such as the \$0.9 billion Morganza-to-the Gulf of Mexico project. It also authorized up to \$90 million for the Larose to Golden Meadow project to provide the 100-year level of flood protection, and \$100 million to study and construct a flood damage reduction project in Lower Jefferson Parish. WRDA 2007 also deauthorized the navigational aspects of much of the Mississippi River Gulf Outlet.

## Upper Mississippi River-Illinois Waterway

WRDA 2007 authorized \$2.2 billion in navigation improvements and \$1.7 billion in ecosystem restoration activities on the Upper Mississippi River and Illinois Waterway (UMR-IWW). 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 (primarily agricultural 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' Chief of Engineers approved the completed feasibility report on UMR-IWW improvements in December 2004. The Chief's approval and the Corps' feasibility report failed to significantly reduce the debate over the urgency, necessity, and national benefit of expanded navigation capacity.<sup>8</sup> The Assistant Secretary of the

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<sup>7</sup> (...continued)

press release for more information at

[[http://www.usace.army.mil/cw/hot\\_topics/ht\\_2007/orleans\\_risk\\_maps.pdf](http://www.usace.army.mil/cw/hot_topics/ht_2007/orleans_risk_maps.pdf)].

The August 2007 estimate for federal funding for the work was approximately \$3.6 billion more than the previous estimate; the previous estimate had been for \$2.2 billion in federal funding beyond the supplemental appropriations already provided for this work.

<sup>8</sup> 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, September 24, 2004), pp. 230 and 490, available at [[http://www2.mvr.usace.army.mil/UMRS/NESP/Documents/Final\\_FES\\_EIS\\_Report\\_Cover\(2004\).pdf](http://www2.mvr.usace.army.mil/UMRS/NESP/Documents/Final_FES_EIS_Report_Cover(2004).pdf)]. 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* (continued...)

Army (Civil Works) requested that an economic reevaluation of the navigation investments be made available by the end of September 2007. The reliability and completeness of the Corps' analysis of the UMR-IWW navigation investments previously had been the subject of controversy and investigation. Critics of the investments argued that the economic justification for the navigation locks were decreasing with the use of corn in the region for ethanol production (rather than the corn being shipped on the waterway to international markets). The critics questioned the urgency, necessity, and national benefit of the investments. Supporters of the investments argued that competitiveness of U.S. products was being harmed by the additional cost and travel time incurred during transit through and waiting for availability of the existing shorter locks.

The Corps' ecosystem restoration plan was less controversial than the UMR-IWW navigation investments. General agreement existed that the ecosystem is declining, and general support existed for the first 15-year increment of the Corps' 50-year ecosystem restoration plan. Debate over the restoration proposal focused primarily on implementation strategies, including linkages between the ecosystem restoration and navigation investments, and the federal-nonfederal cost share for restoration activities.

## Everglades Restoration

### Projects Under the Comprehensive Everglades Restoration Plan.

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 with a 50% federal-50% nonfederal cost share for the program. The principal objective of CERP is to store freshwater that currently flows to the ocean, and redirect it back to the Everglades, where it originally was kept. The retained water is expected to help restore the natural hydrologic functions of the Everglades ecosystem. WRDA 2000 authorized an initial set of CERP restoration projects (with total costs estimated at \$1.4 billion, representing \$700 million in federal responsibility). It also established a process for additional projects outlined in CERP to be developed and authorized. WRDA 2007 authorized more than \$1.8 billion in CERP activities (representing \$0.9 billion in federal responsibility).

**Modified Water Deliveries Project.** Prior to CERP, the federal government and the State of Florida had undertaken other Everglades restoration activities, including the Modified Water Deliveries Project (Mod Waters). The project is a controversial ecological restoration effort in south Florida designed to improve water delivery to Everglades National Park.<sup>9</sup> Completion of Mod Waters is required for

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<sup>8</sup> (...continued)

*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).*

<sup>9</sup> This project was authorized by the Everglades National Park Protection and Expansion Act (continued...)

implementation of some CERP projects. The conference report for WRDA 2007 (H.Rept. 110-280) provided multiple directions to the Corps on Mod Waters. For example, it directed the Chief of Engineers to take immediate steps to increase flows to the Everglades National Park, without significantly increasing the risk of roadbed failure. It also directed the Chief of Engineers to reexamine prior reports and environmental documentation associated with modifying water deliveries to the park and to submit to Congress by July 1, 2008, recommendations on practicable alternatives for increasing the flow of water under Tamiami Trail and into the park.

## WRDA in the Federal Water Resources Context

In addition to directing future federal investments in water resources through WRDA authorizations, Congress also is confronted with addressing water resources issues that are not resolved through authorizing new projects. 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, versus maintaining minimum levels of some values). 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.

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<sup>9</sup> (...continued)  
of 1989 (P.L. 101-229).

Instead, Congress traditionally has pursued incremental changes through WRDA bills and other legislation, and this pattern seems likely to continue.

Like WRDA debates in recent Congresses, the WRDA 2007 debate was dominated by different opinions over the desirability and need for changing the agency's policies, practices, and accountability, and for authorizing billions of dollars in investments in ecosystem restoration, navigation, and flood and storm damage reduction measures. The debates surrounding WRDA 2007 illustrated the continuing differences of opinions over the role of authorizations in guiding and prioritizing the agency's activities. 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 the WRDA vehicle among legislators, and nonfederal project sponsors create demand for its passage, prompting its likely continued use.



## 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 Projects: Authorization and Appropriations*, by Nicole T. Carter and H. Steven Hughes.

### Authorizations and WRDA

Congressional Budget Office, *H.R. 1495 Water Resources Development Act of 2007, as reported by the House Committee on Transportation and Infrastructure on March 15, 2007*, [<http://www.cbo.gov/ftpdocs/79xx/doc7974/hr1495.pdf>].

——. Letter to Honorable Barbara Boxer, May 8, 2007, on amendment in nature of a substitute to S. 1248, the Water Resources Development Act of 2007, available at [<http://www.cbo.gov/ftpdocs/80xx/doc8093/s1248am.pdf>].

——. *H.R. 1495 Water Resources Development Act of 2007, Conference Report filed on July 31, 2007*, available at [<http://www.cbo.gov/ftpdocs/86xx/doc8651/hr1495conference.pdf>].

Executive Office of the President, Office of Management and Budget, *Statement of Administration Policy on H.R. 1495 (House)* (made on April 18, 2007), available at [<http://www.whitehouse.gov/omb/legislative/sap/110-1/hr1495sap-r.pdf>].

——. *Statement of Administration Policy on H.R. 1495 (Senate)* (made on May 11, 2007), available at [<http://www.whitehouse.gov/omb/legislative/sap/110-1/hr1495sap-s.pdf>].

Rob Portman (Executive Office of the President, Office of Management and Budget) and John Paul Woodley, Jr. (Assistant Secretary of the Army (Civil Works)), letter to Chairman James Oberstar, August 1, 2007.

### Coastal Louisiana

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

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 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.

## **Everglades Restoration**

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

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