



Water Resource Issues in the 113th Congress

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Summary

The 113th Congress may face many issues related to water resource development, management, and protection. Such issues include how to make investment decisions in the context of federal fiscal constraints; how to distribute investments between activities to meet new demands for water supplies and aquatic ecosystem restoration and protection; how to maintain and reinvest in an aging portfolio of federal infrastructure (e.g., locks, dams, and levees); and how to effectively respond to and prepare for flood and drought emergencies. These issues often arise at the regional level, but have a federal nexus. For example, Congress may continue to be faced with issues associated with flooding (e.g., Hurricane Sandy response and recovery), navigation and water supply challenges due to drought-induced low river flows, and balancing water supply needs of farm and urban communities with protection of threatened and endangered species.

The water resource issues of the 113th Congress are in part shaped by the actions of past Congresses, including the 112th Congress. In addition to holding numerous oversight hearings on agency policies and activities, the 112th Congress provided regular annual and supplemental appropriations for major federal water research agencies, such as the U.S. Army Corps of Engineers (Corps) and the Bureau of Reclamation (Reclamation). The 112th Congress did not formally consider an omnibus Corps project authorization and policy bill—typically called a Water Resources Development Act (WRDA)—but a draft Senate Environment and Public Works bill was circulated and discussed in the fall of 2012.

The 112th Congress also considered legislation to augment developed water supplies (e.g., water storage, water reuse), settle Indian water rights claims, and facilitate small conduit hydropower development. The 112th Congress considered several bills related to aquatic ecosystem restoration throughout the country (e.g., Everglades, Gulf Coast, Great Lakes, Klamath Basin, and Chesapeake Bay). The 112th Congress also considered legislation related to the energy sector's water use and the water sector's energy use, as well as water research and development legislation, including research related to climate change, water resource availability, drought indicators and streamflow.

The 113th Congress may consider measures similar to those left pending in the 112th Congress (e.g., a farm bill, a WRDA, hydropower development, and water research legislation), as well as other proposals. Because of current water conditions, disasters, or legal or agency developments, certain basin issues are particularly likely to receive congressional attention (e.g., operation of federal reservoirs in the Apalachicola-Chattahoochee-Flint river basin, Sacramento and San Joaquin river basins (Central Valley Project), and Missouri River Basin). Other related legislation may include the energy-water nexus and environmental policy.

This report discusses recent congressional activity and possible topics for the 113th Congress. It provides an overview of the federal role in water resources development, management, and protection, including a discussion of the two major federal water resources agencies and related legislation. It also discusses overarching policy issues, such as flood and drought management and response; project funding and authorization priorities; and aquatic ecosystem restoration.

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Introduction

The 113th Congress is likely to face numerous water resources issues as it conducts oversight and deliberates on authorizations and appropriations related to federal water resource development, management, and protection. Such issues include how to make investment decisions in the context of federal fiscal constraints; how to distribute investments between activities to meet new demands for water supplies and aquatic ecosystem restoration and protection; how to maintain and reinvest in an aging portfolio of federal infrastructure (e.g., locks, dams, and levees); and how to effectively respond to and prepare for flood and drought emergencies. These issues often arise at the regional level, but have a federal nexus. For example, Congress may be faced with responding to coastal flooding issues associated with Hurricane Sandy, addressing navigation and water supply challenges due to drought-induced low river flows, and addressing water supply needs of farm and urban communities while protecting threatened and endangered species. The crux of many of these challenges is how to balance competing demands for water and river management, including how to cope with the effect of federal project operations on the environment and growing fiscal limitations.

This report first discusses recent congressional activity and possible topics for the 113th Congress. Next it provides an overview of the federal role in water resources development, management, and protection, including a discussion of the two major federal water resources agencies and related legislation. The report then provides an overview of overarching policy issues, including flood and drought preparedness and response; project funding and authorization priorities; and aquatic ecosystem restoration.

Recent Congressional Activity

The water resource issues of the 113th Congress are in part shaped by the actions of past Congresses, including the 112th Congress. Legislative activity often is specific to the federal water resource management agencies, such as the U.S. Army Corps of Engineers (hereinafter referred to as the Corps) and the Department of the Interior's Bureau of Reclamation (hereinafter referred to as Reclamation), or is specific to water use by particular sectors, such as energy, agriculture, and municipal and industrial use. Occasionally, Congress takes up broader water resource policy issues, such as coordination of federal water resource activities and programs.

The 112th Congress provided regular annual appropriations and supplemental appropriations for the Corps to conduct its work, and conducted a number of oversight hearings. The 112th Congress did not formally consider an omnibus Corps project authorization and policy bill—typically called a Water Resources Development Act (WRDA)—but a draft Senate Environment and Public Works bill was circulated and discussed in the fall of 2012. Typically, a WRDA authorizes hundreds of site-specific projects and a few regional projects and establishes agency policy and guidelines for project planning and implementation. Because the bulk of past WRDA bills have been composed of geographically specific authorizations, enactment of a bill in the 111th and 112th Congresses was complicated by various moratoria on “earmarks.”¹

¹ In the 112th Congress, the House Republican Conference, Senate Republican Conference, and the Senate Appropriations Committee all adopted moratoria on earmark requests that are significant to how Congress directs these activities. For more on Corps authorization and appropriations issues, see CRS Report R41243, *Army Corps of Engineers Water Resource Projects: Authorization and Appropriations*, by Nicole T. Carter and Charles V. Stern.

The 112th Congress also provided regular annual appropriations for Reclamation to conduct its ongoing activities, and conducted numerous oversight hearings on Reclamation-related activities. The 112th Congress also considered legislation to augment developed water supplies (e.g., water storage, water reuse), settle Indian water rights claims, and facilitate small conduit hydropower development. As with the Corps, legislation enacted for Reclamation during the 112th Congress was less than in prior Congresses, in large part due to earmark moratoria.

The 112th Congress considered several bills related to aquatic ecosystem restoration throughout the country. These bills addressed issues related to water quality and habitat restoration, as well as project construction for restoration and water supply allocation among users and the environment. Bills authorizing comprehensive ecosystem restoration initiatives were introduced for the Gulf Coast, Great Lakes, Klamath Basin, and Chesapeake Bay. These bills addressed governance of ecosystem restoration initiatives and the creation of comprehensive plans to guide restoration efforts, among other things. Other bills addressed specific aspects of ongoing restoration initiatives, such as expediting restoration project approval in the Everglades ecosystem. Ecosystem restoration initiatives frequently involve several federal, state, and local agencies and stakeholders. The bills introduced in the 112th Congress and oversight hearings related to ecosystem restoration initiatives reflected the roles and interests of multiple stakeholders.

The 112th Congress considered, but did not enact, a farm bill. In addition to providing support for farmers and crop production, farm bills provide support for agricultural water conservation and efficiency measures, conservation programs in priority watersheds, and groundwater protection and recharge, as well as water resource and infrastructure needs associated with soil and water conservation.²

Energy and environmental policy also affects water resources management and development. The Senate Energy and Natural Resources Committee reported S. 1343, the Energy and Water Integration Act of 2011, in the 112th Congress to study and address the energy sector's water use and the water sector's energy use. Water use by the energy sector is anticipated to increase because of expanding domestic onshore energy production, in part stimulated by changes in technology, as well as federal programs and policies such as blending mandates of the Renewable Fuel Standard, which have bolstered biofuel production from corn ethanol produced by both irrigated and non-irrigated corn. Additionally, the 112th Congress also considered legislation that aimed to facilitate new hydropower development, including H.R. 2842, H.R. 6247, and S. 629.

The 112th Congress also considered water research and development legislation, including research related to climate change and water resource availability. Water science and research and development are spread across more than 20 agencies. No single water research strategy or formal coordination or prioritization mechanism exists. The interest in congressional action in this area is in part based on concerns that current research is insufficient to prepare the United States to confront domestic and international water challenges. The 112th Congress considered, but did not enact, proposals to provide additional direction and funding for the federal water research portfolio (e.g., H.R. 5862), to support specific research topics (e.g., energy-water research in H.R. 5827), and/or to reauthorize appropriations or provide appropriations for existing

² For more information on agricultural soil and water conservation programs, see CRS Report R42093, *Agricultural Conservation and the Next Farm Bill*, by Megan Stubbs, and CRS Report R42854, *Emergency Assistance for Agricultural Land Rehabilitation*, by Megan Stubbs.

efforts (e.g., the National Integrated Drought Information System, federal desalination research, and federal support of stream gages and state water resources research institutes).

Looking Forward

The 113th Congress may consider measures similar to those left pending in the 112th Congress (e.g., a farm bill, a WRDA, and hydropower development legislation), as well as other proposals. Because of current water conditions, disasters, or legal or agency developments, certain basin issues are particularly likely to receive congressional attention. These include the operation of federal reservoirs in the Apalachicola-Chattahoochee-Flint river basin, Sacramento and San Joaquin river basins (Central Valley Project in California), and Missouri River Basin. Other basins with federal reservoirs experiencing past oversight and potential oversight in the 113th Congress include the Colorado, Columbia, Klamath, and Rio Grande river basins.

The 113th Congress also may conduct oversight of the Chesapeake Bay, Everglades, Great Lakes, and San Joaquin River restoration initiatives, as well as federal activities related to management of the Sacramento and San Joaquin Rivers Delta and its confluence with San Francisco Bay (Bay-Delta). Common themes in regional restoration efforts include demand for new project services (e.g., improved or new flood control, water supply, and navigation facilities), protection of threatened and endangered species, drought management, and water quality concerns. Other topics that also might be addressed in the 113th Congress include energy production effects on water resources and water resources research and development.

Federal Role in Water Resources

The federal government has long been involved in efforts to facilitate navigation, expand irrigation, and reduce flood and drought losses. For example, nearly every large river basin in the country—from the Columbia, Sacramento, and Colorado rivers in the West to the Missouri, Mississippi, and Delaware rivers—contains one or more federal dam or navigation projects. These projects have largely been constructed by the U.S. Army Corps of Engineers (Department of Defense) and the Bureau of Reclamation (Department of the Interior). More recently, federal involvement has expanded to include municipal water supply development and efforts to protect water-related resources such as fish and wildlife. Increasing pressures on the quality and quantity of available water supplies have resulted in heightened local and regional water use conflicts throughout the country, particularly in the West and Southeast. Pressures include population growth, environmental regulation, in-stream species and ecosystem needs, water source contamination, agricultural and energy water demands, climate change and variability, and changing public interests.

Congress historically has played a major role in water resources through authorizations of and appropriations for regional and site-specific activities; however, numerous responsibilities are split or shared with state, local, and tribal governments, particularly related to water allocation and resource planning and management. Congress also establishes the policies that define the federal role in planning for federal water resource projects, and provides direction for construction, maintenance, inspection, and support of federal projects. Congress makes these decisions within the context of multiple and often conflicting objectives, competing legal decisions, long-established institutional mechanisms (e.g., century-old water rights, and

contractual obligations), and in response to events such as floods, droughts, and structural failures.

Federal water resource construction activities shrank during the last decades of the 20th century, marking the end of earlier expansionist policies that had supported large federal investments in dams and hydropower, navigation locks and channels, irrigation diversions, and flood control levees, as well as basin-wide planning and development efforts. Fiscal constraints, changes in national priorities and local needs, few remaining prime construction locations, and environmental and species impacts of construction and operation of federal projects all contributed to this shift. Although these forces are still active, there are proposals for greater federal financial and technical assistance to address growing pressures on developed water supplies, to manage regional water resources to meet demands of multiple water uses, and to address the aging stock of water resources infrastructure.

Hurricane Sandy, the extended and widespread drought of 2012, and record-level floods of 2011 have raised other questions about the federal role in water resources. In particular, the disasters have brought attention to the trade-offs in approaches to distributing federal appropriations among competing water resources projects, to risk management in water resources, and to the trade-offs in benefits, costs, and risks of the current division of responsibilities among local, state, and federal entities.

Federal Water Resource Agencies

Most of the large dams and water diversion structures in the United States were built by, or with the assistance of, Reclamation or the Corps. Historically, Reclamation projects were designed principally to provide reliable supplies of water for irrigation and some municipal and industrial uses. Corps projects were planned principally to improve navigation and reduce flood damages, with power generation, water supply, and recreation being incidental benefits. Reclamation currently manages more than 600 dams and reservoirs in 17 western states,³ providing water to approximately 10 million acres of farmland and 31 million people, as well as 58 power plants capable of producing 40 billion kilowatt-hours of electricity annually (enough for approximately 3.5 million homes). The Corps operates nationwide, and its activities are diverse. The Corps has constructed thousands of flood damage reduction and navigation projects throughout the country, including nearly 12,000 miles of commercially active waterways, nearly 1,000 harbors, and 600 dam and reservoir projects (with 75 hydroelectric plants generating 68 billion kilowatt-hours annually). Additionally, the Corps constructed, usually with nonfederal participation, roughly 9,000 miles of the estimated 100,000 miles of the nation's levees, but only maintains 900 miles. The remaining levees are operated by nonfederal entities, often local governments or special districts.

The Natural Resources Conservation Service (NRCS) in the U.S. Department of Agriculture also facilitates water resources development, primarily for flood control in small watersheds and for soil and water conservation purposes.

³ Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington, and Wyoming.

Many other federal agencies have water-related programs (e.g., the Environmental Protection Agency, the U.S. Geological Survey, and the National Oceanographic and Atmospheric Administration). However, the remainder of this report focuses on the projects, programs, and policies of the Corps and Reclamation.

- For more information on USDA conservation programs and policies, see CRS Report R40763, *Agricultural Conservation: A Guide to Programs*, by Megan Stubbs, and CRS Report R42854, *Emergency Assistance for Agricultural Land Rehabilitation*, by Megan Stubbs.
- For more information on other federal water activities, see CRS Report R42653, *Selected Federal Water Activities: Agencies, Authorities, and Congressional Committees*, coordinated by Betsy A. Cody.
- For more information on federal water projects and programs—including types of financing and financial assistance—see CRS Report RL30478, *Federally Supported Water Supply and Wastewater Treatment Programs*, coordinated by Claudia Copeland.

U.S. Army Corps of Engineers

During 2011 and 2012, the Corps was active in its civil works mission and responded to multiple significant flood and drought events, as well as performing its regular activities of constructing and operating navigation, flood control, and ecosystem restoration projects. As previously noted, Congress authorizes Corps water resources activities and makes changes to the agency's policies generally in Water Resources Development Acts. Although WRDA enactment is usually attempted on a biennial schedule, enactment is less regular in part because of multiple and conflicting stakeholder interests and tensions over potential changes in Corps policies. Also, the bill is not a reauthorization bill, *per se*—rather, it is largely an authorization bill, since few Corps authorities expire.⁴ The most recent WRDAs were enacted in 2000 and 2007. Congress typically appropriates funds for these activities in annual Energy and Water Development Appropriations acts, and at times, it uses supplemental appropriations bills to fund Corps emergency activities.⁵

Interest in authorizing new studies, projects, and policies is likely to prompt consideration of a WRDA bill in the 113th Congress. However, the effect of congressional earmark policy, the level of authorizations in the bill, and the effect of new authorizations on the agency's existing "backlog" of authorized projects may continue to be issues. Debate over whether policy and program changes are needed to set priorities for the agency may arise in the context of either WRDA deliberations or consideration of appropriations. Related to this discussion is frustration by some with the cost and extended project development process of Corps projects.

The status of numerous policy changes included in WRDA 2007 (P.L. 110-114)—revision of federal water resources project planning guidelines, independent review requirements for Corps studies, and national levee safety efforts—may be the subject of congressional oversight. WRDA

⁴ While Corps authorizations generally do not expire or have established sunsets, an automatic de-authorization process begins if projects have not received funding for five years. A number of projects that were authorized in WRDA 2007 (P.L. 110-114) may soon initiate this process.

⁵ For more on these topics, see CRS Report R42841, *Army Corps Supplemental Appropriations: Recent History, Trends, and Policy Issues*, by Charles V. Stern and Nicole T. Carter.

2007 included numerous reporting requirements. The 113th Congress may review the status of these reports and consider action on the recommendations in completed reports. Additionally, Hurricane Sandy in 2012 and Midwest flooding in 2011 raised many questions about the national flood risk and federal actions to reduce that risk which the 113th Congress may pursue.

Corps river and reservoir management, in the context of drought conditions and climate concerns, also may receive congressional attention during WRDA or appropriations deliberations. In many cases, Corps facilities and their operations are central to debates over multi-purpose river management. For example, reservoir management by the Corps, such as in the Apalachicola-Chattahoochee-Flint basin (which provides much of the water supply for Atlanta, GA), is often controversial and has been challenged in the courts. Likewise, Corps operation of dams on the Missouri River and its effect on downstream navigation, flood control, species, and upstream water supplies remain controversial. The situation has been exacerbated by both regional drought in 2012 and flood conditions in 2011.

Legislation

No WRDA was formally introduced in the 112th Congress, but the Senate Environment and Public Works Committee held hearings on a draft WRDA bill in November 2012.⁶ In contrast to previous WRDA bills and to alleviate concerns related to the congressional earmark debate, the draft Senate WRDA in the 112th Congress included no site-specific project authorizations. Such an approach may continue to frame consideration of a WRDA in the 113th Congress. While most Corps authorizations are typically enacted in a WRDA, the 113th Congress may consider more targeted legislation, including proposals to change the system of financing for inland waterway and harbor maintenance projects. In the 112th Congress, H.R. 4342 proposed major changes to the Inland Waterway Trust Fund and inland waterway project development process.⁷ H.R. 104 proposed similarly significant alterations to spending from the Harbor Maintenance Trust Fund.⁸ Finally, if some are frustrated by a lack of progress on a WRDA, they may introduce legislation to authorize specific projects or programs. In the 112th Congress, S. 3509 would have authorized the construction of four Corps Everglades restoration projects.

Bureau of Reclamation

Since the early 1900s, Reclamation has constructed and operated many large, multi-purpose water projects, such as Hoover Dam on the Colorado River and Grand Coulee Dam on the Columbia River. Water supplies from these projects have been primarily for irrigation; however, some municipalities also receive water from Reclamation projects. Construction authorizations slowed during the 1970s and 1980s due to several factors. In 1987, Reclamation announced a new mission: environmentally sensitive water resources management. Since then, increased population, prolonged drought, fiscal constraints, and water demands for fish and wildlife, recreation, and scenic enjoyment have resulted in increased pressure to alter operation of many Reclamation projects. Such changes have been controversial, however, as water rights,

⁶ The hearing transcript and draft bill text are available at epw.senate.gov/public/index.cfm?FuseAction=Hearings.Hearing&Hearing_id=e2296a4c-bf7b-4e29-2cbb-e3d5168326cd.

⁷ See CRS Report R41430, *Inland Waterways: Recent Proposals and Issues for Congress*, by Charles V. Stern.

⁸ See CRS Report R41042, *Harbor Maintenance Trust Fund Expenditures*, by John Frittelli.

contractual obligations, and the potential economic effects of altering project operations complicate any change in water allocation, delivery, or project operations.

In contrast to the Corps, there is no tradition of a regularly scheduled authorization vehicle (e.g., a WRDA) for Reclamation projects. Instead, Reclamation projects are generally considered individually; occasionally individual project authorizations are rolled into an omnibus bill such as P.L. 111-11 enacted in the 111th Congress or P.L. 102-575 enacted in the 102nd Congress.⁹ Because project authorizations are typically enacted in stand-alone legislation, project authorization slowed considerably in the 112th Congress under the congressional earmark policy. It is not clear if pent-up demand for projects will result in more legislation in the 113th Congress or whether project sponsors will instead seek administrative remedies to project issues.

As with the Corps, Reclamation river and reservoir management in the face of drought conditions and climate change may also receive congressional attention. In many cases, Reclamation facilities and their operation are central to debates over multi-purpose river management, particularly during times of drought or years of lower than normal precipitation and runoff. For example, controversies associated with Reclamation water resources management in the Sacramento and San Joaquin river watersheds (CA), the Colorado River Basin, and Klamath River Basin (CA and OR) have often been exacerbated by low water flows and have also been the subject of extended litigation—sometimes even in normal water years. Likewise, the ongoing controversy over Reclamation’s operation of pumps in the San Francisco Bay/San Joaquin and Sacramento Rivers Delta (Bay-Delta) and their effect on water users and threatened and endangered species also is quite controversial. This situation also has been exacerbated by low water conditions in some years.

Examples of some Reclamation-related water project and management issues that may be considered during the 113th Congress include:

- miscellaneous project adjustments;
- small conduit hydropower development;
- regulatory impediments to new water storage projects;
- authorization and appropriations to address aging infrastructure;
- response to drought, and effects of climate variability on federal reservoirs;
- Sacramento-San Joaquin Valley water reliability;
- San Joaquin River restoration settlement funding and oversight;
- Central Oregon water security;
- Klamath River Basin and Klamath project management;
- Central Valley Project (CA) operations oversight (e.g., proposed Bay-Delta Conservation Plan, impact on Delta Smelt, salmon, and water deliveries);

⁹ Congress occasionally passes omnibus bills addressing key Reclamation policy changes, as well as new or revised project and program authorizations. Congress enacted P.L. 111-11 in 2009, which included multiple water and land subtitles. The last time Congress enacted a Reclamation omnibus bill was in 1992, the Reclamation Projects Authorization and Adjustment Act (P.L. 102-575).

- Colorado River water management.

A broader issue that could receive attention from Congress is oversight of Reclamation's mission and its future role in western water supply and water resource management generally. As public demands and concerns have changed, so has legislation affecting Reclamation. For example, some project sponsors are considering new partnerships in project development, with project construction largely to be undertaken by nonfederal sponsors. In part, this has developed due to project sponsor frustration in delays over new project studies. Further, many in Congress have questioned Reclamation's shift in focus from a water resources *development* agency to a water resources *management* agency and believe Reclamation is not doing enough to develop new water storage. Others argue for increased funds and attention to augment water supplies in the West through water reuse, recycling, aquifer storage and recovery, and desalination technologies. Some also have expressed frustration with regulatory hurdles facing project development and expansions. On the other hand, some groups contend Reclamation has not done enough to protect species and the environment generally.

Legislation

There was a marked decrease in Reclamation legislation in the 112th Congress compared with prior Congresses. This largely had to do with the self-imposed congressional "earmark" ban, which extended to site-specific project authorizations for Reclamation projects. Legislation enacted during the 112th Congress primarily consisted of individual project adjustments (e.g., P.L. 112-45, clarifying jurisdiction with respect to the C.C. Cragin Dam and Reservoir in Arizona, and P.L. 112-52, prepayment authorization for the Uintah project). Multiple bills passed the House, but did not pass the Senate (e.g., H.R. 1837 addressing multiple California water issues, H.R. 461, H.R. 2060, and H.R. 2842). Legislation left pending in the 112th Congress is likely to be reintroduced in the 113th Congress.

Overarching Legislative Issues

In addition to issues related to federal projects, the 113th Congress faces a number of overarching water resources issues, including flood and drought management and response; project funding and authorization priorities; and aquatic ecosystem restoration.

Flood and Drought Preparedness and Response

Congress is often faced with reacting to natural disasters such as floods and drought. Coastal flooding resulting from Hurricane Sandy, widespread drought in 2012, and Midwest floods in 2011 have tested the nation's emergency response system and have resulted in billions of dollars in damages. Although the Corps is the principal flood-fighting agency, other agencies also play a role in flood response, including providing disaster assistance (e.g., the Federal Emergency Management Agency). Additionally, responsibilities for flood damage reduction are spread among federal, state, local, and tribal governments. States and local governments in many ways play a primary role in floodplain management because of their jurisdiction over land use decisions and local zoning ordinances—deciding where and how development may occur. It is not clear to what extent flood policy might be addressed in the 113th Congress; however, continuing oversight of federal agency responses to recent flood events appears likely.

Responsibilities for drought planning and response also are split among various levels of government and involve many different federal agencies. Although Congress has enacted legislation to coordinate drought information through the National Integrated Drought Information System (NIDIS), there is no overarching national drought policy and the law authorizing NIDIS appropriations is up for reauthorization. NIDIS reauthorization legislation was introduced in the 112th Congress (H.R. 6489 and S. 3584), but was not enacted. Because of the widespread drought conditions in 2012, Congress might again address drought planning and preparedness through oversight hearings and/or specific legislation, including provisions of a farm bill, WRDA, or other legislation.

For more information on drought impacts and congressional response, see:

- CRS Report RL34580, *Drought in the United States: Causes and Issues for Congress*, by Peter Folger, Betsy A. Cody, and Nicole T. Carter;
- CRS Report RS21212, *Agricultural Disaster Assistance*, by Dennis A. Shields; and
- CRS Report R42854, *Emergency Assistance for Agricultural Land Rehabilitation*, by Megan Stubbs.

Funding and Authorization Priorities

Aging Infrastructure

U.S. water infrastructure is aging; the majority of the nation's dams, locks, and levees are more than 50 years old.¹⁰ Failure of these structures could have significant effects on local communities as well as regional and national impacts. Major capital investments in these structures have been limited in recent years and repairing these facilities would cost billions of dollars.¹¹ Congressional funding has largely been at the project level and has remained essentially flat, while funding needs have increased over time. To date, no comprehensive funding solution to these issues has been enacted. Some propose funding mechanisms that might be more conducive to major capital investments in these projects, such as authorization of loan programs for some infrastructure types, or else including water resource infrastructure among the eligible recipients of funding from an infrastructure bank (such as that proposed in H.R. 402 in the 112th Congress). Others have proposed harnessing revenues from beneficiaries of these projects (hydropower revenues, user fees, etc.) to fund project repairs and upgrades, or even transferring projects to nonfederal entities, such as state or local governments. Still others think the current system is adequate, but that increased investment in the form of project appropriations is warranted.

¹⁰ For example, the majority of the Bureau of Reclamation's facilities are more than 50 years old, and Corps infrastructure averages more than 55 years old. See CRS Report RL34466, *The Bureau of Reclamation's Aging Infrastructure*, by Charles V. Stern.

¹¹ For example, for the Corps alone, waterway users previously estimated that needed lock repairs and upgrades total \$8 billion-\$18 billion over the next 20 years, and the Corps has stated that it will require more than \$26 billion for dam safety repairs over the next 25 years. Needed repairs to Reclamation facilities totaled \$3.2 billion in 2008.

Changing Federal Partnerships

Frustration with the pace of authorization for federal water resource projects has resulted in some local sponsors pursuing projects with limited federal partnership or support. An example includes potential construction of Sites Reservoir in California—an off-stream water storage project associated with the federal Central Valley Project (CA). Some have also proposed advanced funding for federal projects by nonfederal sponsors, to spur project construction. Such proposals, however, raise the question of whether federal investment is needed if local sponsors can finance the projects on their own. Language authorizing nonfederal construction of proposed federal projects (as long as no federal funding is used), was included in H.R. 1837 and H.R. 6247 in the 112th Congress. With existing fiscal constraints and potential continuation of an earmark ban, this trend may continue in the 113th Congress. Related activity may address federal permitting or other regulatory activities that are viewed by some as impeding such development (e.g., requirements of the National Environmental Policy Act, Endangered Species Act, Clean Water Act, and Section 10 of the Rivers and Harbors Act and related regulations).

Earmarks and Project Authorization

Water resource project funding is often a part of the debate on congressionally directed spending, or “earmarks.” Although water resource project development has historically been directed by Congress, the site-specific nature of the authorizations and appropriations process resulted in projects being subject to earmark disclosure rules and earmark moratoria in the 112th Congress.¹² Earmark moratoria appear to be altering the makeup of Corps and Reclamation appropriations in particular by reducing the addition of specific projects to the budget, and by funding broad categories of activities rather than specific projects. Some projects, which have historically benefitted from congressional support, have received less (or no) funding in recently enacted appropriations bills. In addition to funding impacts, earmark moratoria have also influenced consideration of site-specific authorizations of water resource projects. WRDAs historically have been omnibus bills that include many provisions for site-specific Corps activities. In the 112th Congress, no WRDA was introduced in the House, and the Senate released a draft version of the bill that, in contrast to prior WRDAs, included no site specific authorizations.¹³ Both approaches could potentially have significant impacts on water resource project development.

Aquatic Ecosystem Restoration

The 113th Congress may consider the status and priority of major federal efforts to restore aquatic ecosystems that have been altered or impaired by development, habitat loss, and federal water resource projects. Some of these restoration initiatives include those in the Everglades, California Bay-Delta, Great Lakes, Chesapeake Bay, Klamath Basin, and elsewhere. Congressional interest in many of these initiatives is likely to continue in the 113th Congress, which may consider a number of issues pertaining to these ecosystems. For example, Congress may consider legislation to authorize a framework for governance and a comprehensive restoration plan for the

¹² In the 112th Congress, the House Republican Conference, Senate Republican Conference, and the Senate Appropriations Committee all adopted moratoria on earmark requests that are significant to how Congress directs these activities.

¹³ The draft bill is available at http://epw.senate.gov/public/index.cfm?FuseAction=Hearings.Hearing&Hearing_ID=e2296a4c-bf7b-4e29-2cbb-e3d5168326cd.

Chesapeake Bay and Great Lakes. Further, lack of congressional authorization for several new construction projects in the Everglades has caused concern that the initiative is being delayed. Congress might consider policies that would streamline authorizations to allow for more projects to be implemented. Funding for existing restoration initiatives is controversial and could face challenges in the 113th Congress. In appropriations action during the 112th Congress, redirection of funding for restoration efforts in the Missouri River basin to flood damage repair and recovery efforts in the region were proposed but not enacted. In other areas, Congress may react to various restoration activities proposed by state and private stakeholder actions (e.g., a Bay-Delta Conservation Plan (BDCP) or plans for management of water flows and projects in the Klamath River basin).

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