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## **Army Corps of Engineers: Reform Issues for the 107<sup>th</sup> Congress**

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Nicole T. Carter  
Analyst in Environmental Policy  
Resources, Science and Industry Division

# Army Corps of Engineers: Reform Issues for the 107<sup>th</sup> Congress

## Summary

The 107<sup>th</sup> Congress may be presented with proposals to change how the U.S. Army Corps of Engineers (Corps) manages its civil works program. Support for reform of this engineering agency has grown recently as a result of allegations that its officials exerted improper influence and manipulated an economic study to justify an expensive navigation project. An investigation of these allegations by the U.S. Army Inspector General found an institutional bias at the Corps toward large construction projects, which may affect the objectivity of its analyses. A National Research Council study found the assumptions and data used in the economic study for the navigation project to be flawed.

The Corps is an executive branch agency within the Department of Defense that has both civil and military programs. Under its civil works program, the Corps undertakes primarily water resource facility planning, construction, and operation. Congress directs Corps activities through biennial authorizations and annual appropriations. Congressional support for the Corps is generally strong. Corps projects can provide significant economic stimulation in addition to their basic water resource development purposes (*e.g.*, flood control, navigation). Over the agency's 200-year history, its civil works responsibilities have evolved from maintaining navigable channels to include flood control projects and, most recently, environmental restoration and other non-traditional projects. The agency's expanding mission, coupled with limited federal funding for water resources projects, have raised concerns that the Corps' efforts and funding are spread too thin.

The most recent authorizing legislation—Water Resources Development Act (WRDA) of 2000 (P.L. 106-541)—included some changes to improve Corps operations. Recent Senate hearings and a House Corps Reform Caucus indicate that some questions the 107<sup>th</sup> Congress may confront are: should Corps administration be altered to better reflect changing priorities and to restore confidence in the agency's project development process, and, if so, how? Environmentalists, some fiscal conservatives, and other reform advocates argue that many Corps projects generate significant environmental damage with little economic benefit for the Nation. They support changing Corps practices to increase input from elsewhere in the Administration, independent experts, and project stakeholders. Environmentalists generally favor expanding the agency's ecosystem restoration activities, but limiting further expansion of the Corps' mission into other areas as a means to focus the agency's efforts and funding. Other groups including beneficiaries of Corps projects such as the barge industry, farmers, and port authorities, however, generally support current project development and review practices and the level of federal participation in projects.

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# Army Corps of Engineers: Reform Issues for the 107<sup>th</sup> Congress

Support for reforming how the U.S. Army Corps of Engineers (the Corps) administers its civil works program has grown recently in the wake of allegations that Corps officials manipulated an economic study to justify an expensive navigation project. Critics of the Corps cite a lack of project review and input by senior Administration officials, Corps headquarters and divisions, and project stakeholders as harming the integrity of the project development process. An investigation of the allegations by the U.S. Army Inspector General found an institutional bias at the Corps toward large construction projects. A National Research Council study found the assumptions and data used in the study of the navigation project to be flawed.

The most recent Corps authorization legislation—Water Resources Development Act (WRDA) of 2000 (P.L. 106-541)—included some changes and studies to improve Corps operations and procedures. Recent Senate hearings and a newly-formed House Corps Reform Caucus indicate continued interest in addressing how to define the civil works mission; how to maximize the effectiveness of limited federal appropriations; whether project approval, review, and environmental mitigation changes are needed; and, if so, how to change the Corps’ policies and procedures. This report outlines the issues in the debate on the civil works program.

## A Primer on the Corps

### Organization

The U.S. Army Corps of Engineers is an executive branch agency within the Department of Defense that has both civil and military works programs. Under its civil works program, the Corps at the direction of Congress undertakes primarily water resource facility planning, construction, and operation<sup>1</sup>. The civil works program is headed by a civilian Assistant Secretary of the Army for Civil Works. A military Chief of Engineers oversees the Corps’ civil and military operations and reports on civil works matters to the Assistant Secretary. The Corps operates as a military organization with a largely civilian workforce (24,700 civilian and 650 military personnel). Headquarters staff are in Washington, DC. Eight divisions throughout the Nation coordinate 38 district offices in the United States, Asia, and Europe, and field offices worldwide. Water resource projects are largely planned at the district level and approved at the division and headquarters levels.

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<sup>1</sup>More information on the civil works program is available in *The Civil Works Program of the Army Corps of Engineers: A Primer*, CRS Report RS20866.

## Mission and Responsibilities

Over the Corps' 200-year history, its civil works program has evolved into a conglomeration of responsibilities with sometimes conflicting objectives. The agency's oldest responsibilities are navigation and flood control. Many of the navigation and flood control projects are multi-purpose, i.e. they provide water supply, recreation, and hydropower benefits in addition to navigation or flood control benefits. In recent years, ecosystem restoration has also become a substantial part of the civil works program. In addition to these primary responsibilities, the Corps is involved in a variety of other activities, such as disaster relief and recovery and remediation of formerly used nuclear sites (Formerly Utilized Sites Remedial Action Program, FUSRAP).

Navigation projects for inland waterways, ports, and harbors include river deepening, channel widening, jetty construction, lock expansion, dam operations, and dredged material disposal. Flood control projects include dam and related hydropower construction and operation, levee construction, river channelization, large-scale pumping systems, and coastal protection such as beach stabilization and replenishment. More recent environmental restoration activities encompass wetlands and marshlands restoration and environmental mitigation activities for Corps construction projects and Corps-operated facilities. The agency's regulatory responsibility for navigable waters extends to permitting for private actions that might affect wetlands and other waters of the United States.<sup>2</sup>

The Corps attracts congressional attention because of the breadth of its activities and Congress' role in directing the agency. Construction and operation of Corps projects often provide significant economic stimulation for nearby localities. Corps flood control projects protect millions of homes, farms, and businesses. Coastal ports and barge channels and hydroelectric dams play significant roles in regional economies, and also the national economy. At the same time, the range of the Corps' authorized activities often involves the agency in many of the nation's most contentious environmental issues, such as dam removal on the Snake River, water disputes on the Missouri River, and restoration of the Florida Everglades.

## Corps Funding and Backlog

The civil works budget consists primarily of funding for specific projects and studies in three stages: investigation and planning, construction, and operation and maintenance. For much of the agency's history, most studies and projects were entirely federally funded. Since 1986, most projects have included significant financial participation by local project sponsors. Fiscal priorities and public attitudes in recent

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<sup>2</sup>Sections 10 and 13 of the Rivers and Harbors Act of 1899 (30 Stat. 1152; 33 U.S.C. 407) require that a permit be obtained from the Corps for the alteration or obstruction of and refuse discharge into navigable waters of the United States. The Corps also has regulatory responsibilities under other laws, notably Section 404 of the Clean Water Act (P.L. 92-500; 33 U.S.C. 1344). Navigable waters had been interpreted narrowly until court decisions in the mid-1970s. Subsequent judicial and administrative actions have altered the jurisdictional reach of the Corps' regulatory program considerably from the Corps' earlier interpretation.

decades have produced a decline in federal funding for water resources development projects. Over the past 30 years, the Corps has experienced budget declines in “real dollar” amounts for construction. From the mid-1960s to the late 1990s, the annual funding (in 1999 dollars) for the general construction account fell from an average of \$4 billion in the 1960s and 1970s to \$1.4 billion in the 1990s.<sup>3</sup> The construction budget and total agency appropriation for civil works were \$1.4 billion and \$4.2 billion, respectively, for FY 2000 and \$1.7 billion and \$4.6 billion for 2001.<sup>4</sup>

During the 1990s, Congress continued biennial authorizations of navigation and flood control projects and began authorizing more environmental activities. Over the longer term, more projects have received authorization than appropriations. This has resulted in a backlog consisting of over 500 “active” authorized projects with a federal cost of approximately \$38 billion.<sup>5</sup> The backlog is exacerbated by smaller appropriation amounts for individual projects, which may extend construction schedules, which in turn can increase costs and delay benefits.<sup>6</sup>

In addition to the project construction backlog, the Corps also has a \$450 million backlog as of FY2001 for deferred high-priority maintenance for existing structures; at current appropriation levels, the backlog could grow to \$1 billion in 10 years.<sup>7</sup> The Corps and Members of Congress have expressed concern that without maintenance the ability of existing water resources infrastructure to serve the population and the economy will decline. During the 1990s, maintenance funding remained relatively unchanged in relation to construction funding.

Funding for the civil works program has often been a contentious issue between the Administration and Congress, with final appropriations typically providing more funding than requested by the Administration regardless of which political party

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<sup>3</sup>Information provided by the Corps to Senator Voinovich at his request; available in Senator George V. Voinovich, “Statement,” *Corps of Engineers Mission and Backlog of Projects*, Hearing before Subcommittee on Transportation and Infrastructure, Senate Committee on Environment and Public Works, May 16, 2000. Hereafter referred to as Voinovich, May 16, 2000.

<sup>4</sup>More information on Corps funding is available in *Appropriations for FY2001: Energy and Water Development*, CRS Report RL30507.

<sup>5</sup>Voinovich, May 16, 2000. Active projects are those that have been recently funded, evaluated by the Corps as economically justified, and are supported by a local sponsor; an additional 800 authorized projects are considered inactive.

<sup>6</sup>The Statement of (Clinton) Administration Policy for 2000 states that “[b]udget constraints have already caused the delay of scheduled completion dates of most ongoing construction projects.” (Executive Office of the President (Clinton), *Statement of Administration Policy: S. 2796-Water Resources Development Act of 2000*, September 20, 2000).

<sup>7</sup>High-priority maintenance represents about one quarter of maintenance activities. High-priority maintenance activities are those that are needed to preserve the integrity of the facilities and to ensure their continued operation. Information provided by the Corps to Senator Voinovich at his request; available in Senator George V. Voinovich, “Statement,” *Oversight of the Corps of Engineers’ FY2001 Budget*, Hearing before Subcommittee on Transportation and Infrastructure, Senate Committee on Environment and Public Works, February 24, 2000.

controls the White House and Congress. The Corps generally maintains strong congressional support because of the direct water resource benefits and indirect economic and political benefits of its projects. Given the backlog of authorized projects and maintenance activities, Congress and the Administration are sometimes forced to make difficult choices among competing priorities as it prepares annual Corps appropriations.

## **Recent Interest and Action on Corps Management and Operations Issues**

Allegations of improper manipulation of an economic study and related news articles have raised concerns about the integrity of the Corps' planning process.<sup>8</sup> In February 2000, a Corps economist approached the Office of Special Counsel, an independent federal investigative and prosecutorial agency that protects government whistleblowers. The economist contended that Corps officials manipulated a cost-benefit analysis to support expensive improvements of locks on the Upper Mississippi River-Illinois Waterway.<sup>9</sup> In late February 2000, the Special Counsel released a finding that there was a substantial likelihood of violations and that the case warranted further investigation.<sup>10</sup> The allegations have been more thoroughly investigated by a National Academy of Sciences panel (at the request of the Department of Defense), the Army Inspector General (at the request of the Department of Defense), and the Corps itself.

In December 2000, the Department of Defense released a report by the Inspector General (IG) examining the allegations of wrongdoing. The Special Counsel's letter transmitting this report to the President stated that the investigation revealed "serious misconduct and improprieties in connection with the feasibility study" and suggested "the existence of institutional biases that led to misconduct . . . and that may affect Corps decisionmaking in other projects."<sup>11</sup> The institutional bias for large-scale projects was found to create "an atmosphere where objectivity in its analysis was placed in jeopardy." The report identified an initiative to "grow" the civil

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<sup>8</sup>Among the news media covering the Corps, articles in *The Washington Post* have received significant attention; these can be viewed at the following website: <http://washingtonpost.com/wp-dyn/nation/specials/aroundthenation/corpsengineers> (visited 1/17/2001).

<sup>9</sup>This economist served for five years as the technical manager of the economic study for the project—a lock expansion project along the Mississippi River-Illinois Waterway. "Affidavit of Donald C. Sweeney" at: [http://www.environmentaldefense.org/programs/Ecosystems/Mississippi/ms\\_affidavit.html](http://www.environmentaldefense.org/programs/Ecosystems/Mississippi/ms_affidavit.html) (visited 1/17/2001).

<sup>10</sup>U.S. Office of Special Counsel, "Special Counsel Finds that Whistleblower Allegations Demonstrate Substantial Likelihood that Army Corps of Engineers Engaged in Violations of Law, Rule or Regulation, and/or Gross Waste of Funds; Requests Investigation by Secretary of Defense," Press Release, February 28, 2000.

<sup>11</sup>U.S. Office of Special Counsel, Letter to The President, December 6, 2000. The text of the Inspector General's report is available at <http://www.osc.gov/reading.htm> (visited 1/17/2001).

works program as contributing to the bias. However, the report did not find evidence of blatant fraud or abuse.

In a broader context, the “Program Growth Initiative” is part of a strategic vision for the agency set forth in 1999 by the former Chief of Engineers; the initiative was brought to the public’s attention by a February 2000 series of articles in *The Washington Post* that criticized the initiative claiming it placed as the top priority expansion of the civil works program, regardless of need.<sup>12</sup> The initiative set expansion targets for the civil works program that would result in a 20% increase before inflation in the current civil works budget by 2005. Former Chief of Engineers General Joe N. Ballard defended the Corps’ civil works program: “[W]e are seeking to identify unmet National water resource needs that fall within the Corps’ mission areas. These needs are based on published and documented information. Our role is to apply a structured, reasoned approach to identifying and quantifying the Nation’s water resource needs.”<sup>13</sup> The Inspector General’s report explains that Corps officials’ interest in identifying unmet needs derives from the challenge the agency faces due to limited public and fiscal support and local demand for navigation and flood control projects.

In late February 2001, the National Resource Council, an arm of the National Academy of Sciences, released its report on the planning of the Upper Mississippi River-Illinois Waterway project.<sup>14</sup> The investigation found that the Corps’ approach to estimating navigation benefits were sound, but the application of theoretical models was flawed.

Environmental and taxpayer groups are using these studies in their pursuit for reform of Corps management, operations, and policies. Environmentalists are continuing their decades-old argument that the negative environmental effects of some of the Corps’ current large-scale navigation and flood control projects outweigh their benefits and that environmental impacts are not properly measured, valued, and mitigated. Taxpayer groups argued that the benefits of federal investment in many projects were dubious and that project decisions were not based on sound economic analysis, but on politics.<sup>15</sup>

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<sup>12</sup> “Generals Push Huge Growth for Engineers,” *The Washington Post*, February 24, 2000. The initiative allegedly was undertaken without the knowledge of the Assistant Army Secretary. A Corps-produced presentation outlining the initiative is available at: <http://www.environmentaldefense.org/programs/Ecosystems/Mississippi/CorpsPPT/index.html> (visited 1/17/2001).

<sup>13</sup> General Joe N. Ballard, Chief of Engineers, U.S. Army Corps of Engineers, “Statement,” *Oversight of the Corps of Engineers’ FY2001 Budget*, Hearing before Subcommittee on Transportation and Infrastructure, Senate Committee on Environment and Public Works, February 24, 2000. Hereafter referred to as Ballard, February 24, 2000.

<sup>14</sup> National Research Council, *Inland Navigation System Planning: The Upper Mississippi River-Illinois Waterway*, Washington, D.C.: National Academy Press, 2001, 5 and 28. Hereafter referred to as National Research Council, 2001.

<sup>15</sup> Examples of these views are available in a widely-distributed report titled “Troubled Waters: Congress, the Corps of Engineers, and Wasteful Water Projects” found at

(continued...)



Many groups and communities benefitting from Corps activities, such as the barge industry, port authorities, and some farmers, support the agency. They laud the agency's contributions to their communities and the national economy and argued for its continued participation in inland waterways, shore protection, and flood protection.<sup>16</sup> They contend that the Corps' critics are unfairly citing a few complex, high-profile cases that are atypical as evidence of fundamental problems with Corps operations.

## Recent Legislative Activity

The 107<sup>th</sup> Congress so far has held two hearing related to Corps project planning. The Subcommittee on Transportation and Infrastructure of the Senate's Committee on Environment and Public Works held a hearing on March 15, 2001 on reforms to address the Corps' feasibility studies. General Flowers, the current Chief of Engineers, testified to the soundness of the existing project development process and responded to concerns about the Upper Mississippi River-Illinois Waterway economic study. On February 27, 2001, General Flowers also testified at a hearing on the Inspector General's report held by the Subcommittee on Energy and Water Development of the Senate's Committee on Appropriation.

President George W. Bush's "Fiscal Year 2002 Budget" issued in April 2001 proposes reducing funds for studying new Corps projects and targeting funds for completing priority ongoing projects. This budget gives priority to projects and programs that have significant national benefits in commercial navigation, flood damage reduction, and environmental restoration and enhancement.

The 106<sup>th</sup> Congress addressed criticisms of the Corps in Title II of WRDA 2000 (P.L. 106-541). Section 216 directed the National Academy of Sciences to study both "state of the art" project analysis methods and to compare them to the methods employed by the Corps and the practicality and efficacy of an independent review of Corps feasibility reports. Section 222 required the establishment of Corps procedures to enhance public participation in the development of feasibility studies, and to

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<sup>15</sup>(...continued)

<http://www.nwf.org/greeningcorps/report.html> (visited 3/21/2001). The report, which was co-authored by the Taxpayers for Common Sense and National Wildlife Federation and published in March 2000, made specific recommendations for Corps reform and identified the 25 "Most Wasteful Corps of Engineers Projects."

<sup>16</sup> J. Ron Brinson (President New Orleans Port Authority), Tony B. MacDonald, (Executive Director of the Coastal States Organization), and George Grugett (Executive Vice President of the Mississippi Valley Flood Control Association) provided testimony supporting the Corps' continued participation in inland waterways, shore protection, and flood protection (*Corps of Engineers Mission and Backlog of Projects*, Hearing before Subcommittee on Transportation and Infrastructure, Senate Committee on Environment and Public Works, May 16, 2000). At the same hearing, William Parrish (Vice Chairman Association of State Floodplain Managers) supported the Corps' role in flood control and encouraged both greater participation in projects by local entities and floodplain management strategies using non-structural solutions.

include, if appropriate, a stakeholder advisory group. Under Section 223, the Corps is required to monitor the economic and environmental results of up to five projects for at least 12 years. Section 224 called for a study by the General Accounting Office (GAO) on the effectiveness of concurrent mitigation for fish and wildlife impacts (i.e., 50% of mitigation complete before beginning project construction); it did not address wetlands mitigation per se.

Numerous other Corps reform bills were introduced during the 106<sup>th</sup> Congress—H.R. 4879, H.R. 5459, and S. 2309—however, the 106<sup>th</sup> Congress did not act on these. The provisions for Corps reform in WRDA 2000 were scaled-down versions of reforms proposed in H.R. 4879. This bill would have implemented requirements for independent review, stakeholder involvement, economic and environmental monitoring. The bill also proposed a requirement that projects not be recommended by the Secretary of the Army until all costs (including mitigation costs) were calculated. Furthermore, the bill would have revised the project development process for flood control projects to foster greater environmental protection and economic benefits. The bill proposed requirements for both review of reconnaissance studies by the Corps' Environmental Advisory Board and full and concurrent mitigation for fish and wildlife. S. 2309 proposed the establishment of a commission to investigate a wide array of Corps reforms.<sup>17</sup> H.R. 5459 would have required a project benefit-cost ratio of at least 1.5 to 1; this is more stringent than the requirement set forth in planning guidelines that benefits must simply exceed costs.

In their respective appropriations reports for FY2001, both the House and Senate Appropriations Committees, which are responsible for Corps funding legislation, expressed support and criticism of changes in the Corps' project development process. The House Appropriations Committee noted in House Report 106-693 concerns about the Corps' project review process and indicated its desire for a more streamlined project development process.<sup>18</sup> The Committee mentioned the manipulation allegations but did not take specific action while investigations were underway. The Committee also commented on the accusations concerning Corps officials improperly trying to grow the civil works program; the report stated that while pressure on planners and engineers to "inappropriately justify projects is unacceptable, the Committee believes that it is the proper role of the Chief of Engineers to advise the Administration, the Congress, and the Nation of the level of

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<sup>17</sup>Under the proposed legislation, the commission would have investigated the following: civilian control, compliance with environmental laws, quality of project analyses, coordination with other federal and state agencies, personnel size and budget, management structure, transfer of civil works functions, closing of segments of the inland water system, revision of planning regulation, deauthorization of projects, independent review, and benefit-cost requirements.

<sup>18</sup>A 1999 National Research Council report found only limited opportunities for streamlining the planning process. The Council recommended several changes to help shorten the process but found "[b]eyond these recommendations, however, further reductions may be neither reasonable nor desirable" (National Research Council, *New Directions in Water Resources: Planning for the U.S. Army Corps of Engineers*, Washington, D.C.:National Academy Press, 1999, 8. Hereafter referred to as National Research Council, 1999).

investment in water resources infrastructure that he believes is needed to support the economy and improve quality of life for our citizens.”<sup>19</sup>

The Senate Appropriations Committee in Senate Report 106-395 noted its dissatisfaction with management reforms proposed by the Clinton Administration. Although the Committee did not include language prohibiting Corps reform, it put the Administration on notice that it would continue to “assess the need for such language as the process moves forward.” The Senate Committee also expressed concern about the Corps’ expansion into non-traditional areas and areas where the private sector has demonstrated capability and capacity. The conference report (House Report 106-907) did not address Corps reform issues.

## **Corps Management and Operations Issues**

Opinions on the need, nature, and scope of changes in Corps policies and procedures vary widely. Congress has not made significant changes to the organization, management, and project development process of the Corps in recent years, yet it has made significant changes on specific procedures and requirements, such as changes in 1986 to the cost-share requirements for projects.

Interest groups and individuals supporting reform of the Corps approach the issue from many perspectives. They represent the spectrum of environmental groups, as well as those who are interested in maximizing benefits of federal investments. Similarly, groups generally satisfied with the Corps current policies and procedures are not a homogenous group. Some reform opponents represent industries that benefit from federal investment in Corps projects. Others are from communities interested in benefitting from Corps projects in new mission areas. Others opposing change are concerned about project delays to navigation and flood control projects caused by the Corps’ growing environmental responsibilities and requirements.

The following reform issues, which are discussed below in detail, are among those being raised during the 107<sup>th</sup> Congress: project development process, economic justification and analysis of projects, independent review and local advisory groups, oversight by the Administration, environmental impacts of projects, and mission focus and expansion.

### **Project Development Process**

The Corps currently follows a two-phase planning process that is intended to provide decision makers with sufficient information to determine if a project warrants federal investment.<sup>20</sup> Project development is directed by *Principles and Guidelines for Water and Related Resources Implementation Studies* (P&G), which was written by the Water Resources Council (WRC), guide decision making and analytical

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<sup>19</sup>House of Representatives, *Energy and Water Development Appropriations Bill, 2001*, Report 106-693, June 23, 2000.

<sup>20</sup>More information on the planning process is available in *Planning Guidance Notebook* (Engineer Regulation 1105-2-100) available at: <http://www.usace.army.mil/publications/>.

procedures for federal water resource projects.<sup>21</sup> The P&G was approved in its current form in 1983. The P&G does not differentiate between benefits to individual or local interests and society at large. The Corps also has internal planning guidance in its “Planning Guidance Notebook” updated (and given its current name) in April 2000; this notebook clarifies planning procedures. In two recent reports, the National Research Council recommended that the federal Principles and Guidelines be reviewed and modified to incorporate contemporary analytical techniques and changes in public values and federal agency programs.<sup>22</sup>

Projects originate with a request for assistance from a local community (*e.g.*, citizens, businesses, or congressional delegation) or local government entity with a water resource-related need that is beyond its capabilities to alleviate; the Corps’ district office typically requests congressional study authorization and funding to undertake a reconnaissance study to investigate the need. This study is used to better understand the nature of the water resource problem; determine the likelihood of a project that the Corps can eventually implement; and make a preliminary evaluation of federal interest, economic costs and benefits, and environmental impacts and potential mitigation.<sup>23</sup> Based on the findings of the reconnaissance study, Corps headquarters decides whether to proceed to a feasibility study. According to testimony by General Flowers, of every 100 reconnaissance studies only 16 result in actual construction.<sup>24</sup>

During the first months of a project’s feasibility phase, the Corps’ local district office formulates alternative plans, investigates engineering feasibility, assesses environmental impacts pursuant to the National Environmental Policy Act (NEPA, the National Environmental Policy Act (P.L. 91-190; 42 U.S.C. 4321) and other regulations, and conducts benefit-cost analyses according to the P&G and Corps guidelines. The district office distributes a project’s draft feasibility report for review by its division, Corps headquarters, the Assistant Secretary, affected federal agencies, governors of affected states, the Office of Management and Budget (OMB), and the general public. The feasibility phase ends when the Chief of Engineers signs a final recommendation. The Corps then begins preconstruction engineering and design, a one to two year process conducted while pursuing congressional authorization for construction.

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<sup>21</sup>WRC was established pursuant to the 1965 Water Resources Planning Act (P.L. 89-80; 42 U.S.C. 1962-b2). WRC is currently dormant due to a lack of funding. Given the WRC’s status, the procedures for modifying P&G are not clear. Three other federal agencies—the Bureau of Reclamation, the Natural Resources Conservation Service, and the Tennessee Valley Authority—also use the P&G.

<sup>22</sup>National Research Council, 1999, 4-5; National Research Council, 2001, 5 and 28.

<sup>23</sup>This description of the reconnaissance study is from Chapter VII of the Corps’ 1996 Project Partnership Kit available at: <http://www.usace.army.mil/inet/functions/cw/ppkit/htoc.htm> (visited 1/23/2001).

<sup>24</sup>General Robert B. Flowers, “Oral Statement,” *Reforms to Address the Corps of Engineers Feasibility Studies*, Hearing before Subcommittee on Transportation and Infrastructure, Senate Committee on Environment and Public Works, March 15, 2001. Hereafter referred to as General Robert B. Flowers, March 15, 2001. The testimony is available at: [http://www.senate.gov/~epw/stm1\\_107.htm#03-15-01](http://www.senate.gov/~epw/stm1_107.htm#03-15-01) (visited 3/20/2001).

Congress typically authorizes Corps projects as part of a biennial consideration of a Water Resources Development Act, which is expected in 2002. Congress might authorize construction of a project on the basis of a Chief of Engineers report, or it might wait for review by the Assistant Secretary for Civil Works and OMB. Following authorization for construction, the federal cost-share may be provided on an annual basis in the annual Energy and Water Appropriations Act.<sup>25</sup> Construction is managed by the Corps' district but typically is performed by private contractors. Most projects are operated and maintained by local sponsors.

Advocates of reform argue that the Corps' project development process needs to better reflect the national interest and current values, such as giving a higher priority to environmental objectives and projects with national benefits. The construction and maintenance backlogs motivate interest in refining criteria to prioritize activities based on the greatest national benefit. Others contend that "reform" is not needed; they argue that the Corps' current project development practices are among the most advanced used by the federal government and produce sound projects with national benefits. Some also argue that federal funding is adequately directed to priority projects through the congressional appropriations process.

Critics of the Corps argue that the heart of the problem with the agency's project development process is a fundamental conflict of interest: the Corps evaluates proposed projects and builds the ones it deems worthwhile. Critics assert that the Corps lacks objectivity because if an analysis concludes that economic costs of a project outweigh benefits, or that the ecological damage of a project is too extreme, the agency loses a potential construction job. Critics believe that the Corps' dual responsibility for project evaluation and project construction produces incentives for the agency to bias studies toward recommendations to proceed. The December 2000 Inspector General's report partially attributes the institutional bias toward large construction projects to district staff funding. The report explains: "The Districts were dependent upon project funds to maintain their staffs. The continued vitality of the Districts was thus dependent on producing study results that favored construction projects."<sup>26</sup> Critics claim that these incentives are particularly strong at present because of pressures to grow the civil works program. Retired Chief of Engineers Ballard fiercely defended the integrity of the agency's staff and studies, saying that the Corps' system of internal checks and balances filter out questionable projects and lead to unbiased recommendations in the public interest.<sup>27</sup> This sentiment was reiterated by General Flowers at recent hearings.

Reform supporters have set forth a variety of proposals for changing the project development process to focus the Corps' efforts and funding. Some groups concerned

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<sup>25</sup>More information on the federal budget process is available in Chapter VII of the 1996 Project Partnership Kit available at: <http://www.usace.army.mil/inet/functions/cw/ppkit/httoc.htm>.

<sup>26</sup>Department of the Army, *U.S. Army Inspector General Agency Report of Investigation (Case 00-019)*, December 2000, 7. Hereafter referred to as Department of the Army, 2000.

<sup>27</sup>Ballard, February 24, 2000.

about federal spending propose requiring Corps feasibility studies to demonstrate that projects are primarily in the national interest, prioritizing projects on the basis of their benefit-cost ratio and other criteria, and designing projects to maximize net national benefits per dollar invested. They are also concerned that the benefits of some current projects are concentrated among a limited number of agribusinesses, farmers, ports, barge firms, shipping firms, and developers. Critics of the Corps argue that local interests now dominate the project development process because cost-sharing requirements financially tie the districts to local interests. Reform supporters contend that this tie results in the districts not demonstrating sufficient concern for the national interest; they see this as problematic under the current project development process which incorporates only limited review from the division, headquarters, and senior Administration officials.

Some local project sponsors argue that local interests must be involved in project development since they are contributing local financial resources to Corps projects. Supporters of current practices argue that the projects are in the national interest if they comply with the P&G.<sup>28</sup> In recent testimony, General Flowers stated: “An unintended effect of cost-sharing has been the focus of studies, as cost sharing partners are reluctant to finance studies that are broader than their immediate concern. As a result, our planners are often caught between the forces seeking comprehensive planning at one end of the spectrum and those who voice concerns for addressing needs on an expedited basis and early screening of alternatives that have little chance of being implemented.”<sup>29</sup>

## **Economic Justification and Analysis of Projects**

The benefit-cost analysis conducted as part of the feasibility phase is intended to provide a measure by which to compare a project’s benefits to the investment required. The Corps began using benefit-cost analyses in the 1930s and has continued to refine its procedures in applying this decision-making technique. The Corps’ application of benefit-cost analysis continues to draw criticism. Although criticisms that the Corps uses benefit-cost techniques that undervalue environmental benefits and damages are still raised, recent criticism of the agency’s economic studies has focused on the applied economic models and data.<sup>30</sup> Some Corps observers have voiced concern about the validity of assumptions and projections and the improper participation in the analysis by powerful stakeholders that would benefit from projects.<sup>31</sup> Another concern that has been raised is that analysis techniques in the P&G

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<sup>28</sup>The P&G state that “The Federal objective of water and related land resources project planning is to contribute to national economic development consistent with projecting the Nation’s environment.” (1983, p. iv).

<sup>29</sup>General Robert B. Flowers, March 15, 2001.

<sup>30</sup>The National Research Council’s February 2001 report titled “Inland Navigation System Planning: The Upper Mississippi River-Illinois Waterway” provides an analysis and critique of an economic analysis for one project. The report is available at: <http://books.nap.edu/catalog/10072.html> (visited 3/20/2001).

<sup>31</sup>The Inspector General’s report found that “the barge industry was viewed as a partner (continued...)”

do not address an institutional bias at the Corps toward large projects, nor account for federal fiscal constraints.

Taxpayer groups argue that the Corps needs to be redirected toward more fiscally-responsible management of the nation's water resources; they propose elimination of spending on projects and maintenance activities that do not provide sufficient national benefits.<sup>32</sup> Opponents to reform argue current cost-benefit analytical techniques adequately gauge if federal investment in a project is warranted and that accounting for federal fiscal constraints is a budgetary issue and not related to an individual project analysis.

Some fiscal conservatives argue for a national review of inland navigation waterways, decommissioning of waterways that do not handle sufficient traffic to support their operation and maintenance, and reduced federal financing for operation and maintenance of waterways. They also support shifting to local communities more of the maintenance costs of beach replenishment projects because of their localized benefits. Some taxpayer groups argue for the termination of congressional waivers and other methods to reduce local financial contributions to projects. They contend that reduced cost-sharing increases demand for projects and encourages over-built projects. Reform supporters also argue for increasing current cost-sharing requirements for some types of activities, most notably flood control projects, port deepening, and inland waterway maintenance.

Groups representing project beneficiaries contend that cost-sharing increases would be unfair because only wealthier communities could afford projects. They argue that the Corps' continued participation in construction and maintenance of waterways, flood control, and shore protection projects are in the national interest because of the transportation and flood protection benefits they provide.<sup>33</sup> According to Corps

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<sup>31</sup>(...continued)

during the study [of the lock expansion]. This view led Corps leadership to involve the industry to a far greater extent than other interest groups . . . [A Corps official] permitted the barge industry to become improperly involved in the economic analysis" (Department of the Army, 2000, 7 and 13). Environmental costs and benefits (e.g., endangered species protection, aquatic ecosystem protection or restoration, and aesthetic preservation or improvement) can be difficult to quantify monetarily. The fact that environmental damage and benefits often defy simple monetization and do not fit easily into a traditional benefit-cost valuation framework continues to be a problem. Often, Corps officials will use surveys or models to estimate the value or cost of environmental impacts; these surveys and models can themselves be quite controversial (for more information see "Natural Resources: Assessing Nonmarket Values through Contingent Valuation" CRS Report RL30242).

<sup>32</sup>Examples of this perspective can be seen in the March 2000 report titled "Troubled Waters: Congress, the Corps of Engineers, and Wasteful Water Projects" by Taxpayers for Common Sense and National Wildlife Federation, and the recent report titled "Green Scissors 2001: Cutting Wasteful and Environmentally Harmful Spending" by Green Scissors (a coalition of taxpayer, consumer, and environmental organizations) available at: <http://www.greenscissors.org/publications/gs2001report.htm>.

<sup>33</sup>*Corps of Engineers Mission and Backlog of Projects*, Hearing before Subcommittee on (continued...)

officials, since 1959, Corps projects have prevented nearly \$500 billion dollars in flood damages, returning \$6 for every \$1 invested.<sup>34</sup> Others argue that the country's waterway and navigation system require modernization and improvement for ports and shippers to remain competitive internationally.<sup>35</sup> Some supporters of current Corps' practices respond to the whistleblower allegations with the argument that Corps officials were fixing a flawed economic study, not manipulating the results.

## Administration Review

Before the 1990s, the Assistant Secretary and the Office of Management and Budget (OMB) typically reviewed projects for technical and policy compliance prior to seeking congressional construction authorization. Although the P&G do not differentiate between benefits for individual or local interests and national interests during the evaluation and development of a project, OMB is required under Executive Order 12322 to consider whether a project serves a federal interest as defined by the President's priorities. Like the internal division and headquarters reviews, these senior-level Administration reviews appear to have evolved from a technical and policy review to a more general "policy compliance review" in an attempt to cut administrative costs and streamline project development. Since the mid-1990s, Congress has authorized a significant number of projects prior to a full review by the Assistant Secretary of Civil Works and OMB.

Environmental and some taxpayer groups argue for increased oversight by the Assistant Secretary and OMB in order to protect the national interest and balance what they see as a strong influence on Corps activities by Members of Congress who seek projects in their districts. Opponents of reform argue that current review protects the national interest, so additional civilian control is unnecessary.

According to some observers, attempts by the Clinton Administration to regain civilian oversight of the Corps in March 2000, after the whistleblower's allegations became public, contributed to a breakdown in an already poor relationship between then-Chief of Engineers Ballard and then-Assistant Secretary Westphal. Staff of three Senate committees—Environment and Public Works, Armed Services, and Appropriations—jointly conducted an (unpublished) investigation that found no need for significant management reform, but revealed a systemic communication and management breakdown between the Chief of Engineers Office and the Office of the

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<sup>33</sup>(...continued)

Transportation and Infrastructure, Senate Committee on Environment and Public Works, May 16, 2000.

<sup>34</sup>General Robert B. Flowers, March 15, 2001.

<sup>35</sup>For more on this perspective, see testimony provided at a hearing of the House Mississippi River Caucus on the Upper Mississippi Navigation Study held March 15, 2001. The testimony is available at:

[http://www.usace.army.mil/inet/functions/cw/hot\\_topics/uppermissreport.htm](http://www.usace.army.mil/inet/functions/cw/hot_topics/uppermissreport.htm) (visited 3/21/2001).



Assistant Secretary.<sup>36</sup> The relationship between the Assistant Secretary and the Chief of Engineers was clarified through a joint memorandum in November 2000 signed by newly-appointed General Flowers and the Assistant Secretary at that time.<sup>37</sup> Some critics of the Corps are not satisfied; they argue that the lack of input and oversight by senior Administration officials is a systemic problem resulting from the Corps' placement in the Army and congressional desire to fund certain projects.

Taxpayer groups and environmentalists posit that the reduction in review contributes to the development of both unreliable feasibility studies and projects that are not economically justified and/or in the national interest. They call for a full review of projects by the Office of the Assistant Secretary and OMB before authorization. The Clinton Administration stated that projects authorized on the basis of only a Chief of Engineers report (or contingent on a Chief's report), rather than following a review by the Administration, received insufficient review from a national perspective.<sup>38</sup> According to former Assistant Secretary of the Army Joseph Westphal, authorization without the Administration's review is common; he stated "Roughly three-quarters of the significant new projects in last year's WRDA 1999, and many of its project modifications, were still in the planning stage or undergoing review when Congress authorized them."<sup>39</sup>

Recent WRDAs have authorized projects in the feasibility phase by making their authorizations contingent on a Chief of Engineers report being available by December 31 of the year the WRDA is enacted. Reform advocates are particularly critical of this authorization procedure. They contend that contingent authorization rushes projects through critical stages of the development process (e.g., environmental impact assessment) and that congressional decisions are being made without basic project information.

Opponents of greater civilian oversight argue that the current project development process and the authorization and appropriation process provide sufficient protection of the national interest and that projects are rejected when there is no federal interest. They note that the Administration's reviews are used to inform appropriations decisions (even if they are not used for authorization decisions). Others argue that the Administration's input is not necessary because it is the prerogative of Congress to authorize projects for a variety of purposes and at variable costs and that this review can be used to delay projects that do not conform with the President's priorities.

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<sup>36</sup> Senator Bob Smith, "Opening Statement," *Nomination of Maj. Gen. Robert B. Flowers*, Hearing before Senate Committee on Environment and Public Works, September 14, 2000.

<sup>37</sup>"Memorandum for the Secretary of the Army: Civil Works Management and Communications Clarifications" signed by Assistant Secretary Joseph Westphal and Chief of Engineers Flowers on November 28, 2000.

<sup>38</sup> Executive Office of the President (Clinton), *Statement of Administration Policy: S. 2796-Water Resources Development Act of 2000*, September 20, 2000.

<sup>39</sup>Westphal, May 23, 2000.

## Independent Review and Local Advisory Groups

In the 1990s, the amount of internal review built into the Corps' planning process was reduced. Headquarter and division-level technical review were devolved to the districts in order to cut administrative costs and streamline planning. Policy review by the division, headquarters, and Assistant Secretary were consolidated into a single policy compliance review in Washington, DC.<sup>40</sup> Currently, the National Academy of Sciences is studying the efficacy of an independent review of Corps feasibility reports. In recent testimony, General Flowers proposed establishing an independent review panel of Corps senior leaders and outside independent experts for large, complex or controversial studies while the Academy conducts its study.<sup>41</sup>

Environmentalists and some fiscal conservatives are arguing for an entirely independent review of projects both to counter perceived deficiencies in internal review and biases in the project development process and improve national-level oversight of projects. They are also calling for the establishment of local advisory groups for projects as mechanisms for reaching consensus on project objectives and design, and opening up the decision-making process to the public.<sup>42</sup> In their view, a fundamental institutional-cultural bias at the Corps to promote large construction projects affects the objectivity of reports and discourages internal criticism of projects. They argue that independent review and local advocacy groups are needed to provide additional input, including input by stakeholders opposed to a project.

Those opposed to increasing external input and review argue that the current project development process already incorporates sufficient review and opportunities for public input; they believe that more review will only delay projects and increase costs. They also argue that the analyses undertaken during project development inevitably require professional judgement calls and that Corps staff perform their duties as responsible professionals.

## Environmental Impacts of Projects

The Corps evaluates the environmental impact of its projects under NEPA and other environmental laws. During this evaluation process, if the Corps determines that actions are needed to mitigate project impacts, mitigation planning is conducted during the feasibility phase. The Chief's Environmental Advisory Board, which was created to provide advice on developing policy and procedural recommendations for engineering and economic development in an environmentally sustainable manner, has

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<sup>40</sup>More information on the evolution of the Corps' review procedures is available at: [http://www.usace.army.mil/inet/functions/cw/hot\\_topics/reviewprocedures.htm](http://www.usace.army.mil/inet/functions/cw/hot_topics/reviewprocedures.htm) and [http://www.usace.army.mil/inet/functions/cw/hot\\_topics/rp\\_faq.htm](http://www.usace.army.mil/inet/functions/cw/hot_topics/rp_faq.htm) (visited 3/21/2001).

<sup>41</sup>General Robert B. Flowers, March 15, 2001.

<sup>42</sup>*Destruction by Design: The U.S. Army Corps of Engineers' Continuing Assault on America's Environment*, a December 1999 report by the Gulf Restoration Network, includes numerous recommendations for improving public participation at the Corps (available at <http://www.gulfrestorationnetwork.org/CoverpagesGRN2..htm> (visited 1/17/2001)).

not been active in recent years. While testifying in March 2001, General Flowers proposed reactivating the Board in April 2001.<sup>43</sup>

Environmentalists' fundamental criticism of the Corps is that the negative environmental effects of some navigation and flood control projects developed and proposed by the Corps outweigh their benefits to the nation. They allege that the Corps is not living up to the environmental regulations that apply to its projects and that the districts are acting too autonomously, resulting in varied implementation of national policy. Environmentalists argue that the Corps has not been kept to the same mitigation standards as other developers, particularly in regards to wetlands. Proposed reforms include full wetlands mitigation for environmental impacts of projects by replacing habitat destroyed acre-for-acre and simultaneous appropriations for mitigation and construction. Other proposals have the Environmental Advisory Board of the Corps evaluating projects during the reconnaissance phase to determine if environmental impacts can be successfully mitigated. Opponents of such changes argue that the current planning process and regulations already provide sufficient environmental protection. They contend that further requirements would only cause delay and increase costs.

## **Mission Focus and Expansion**

In recent years, Congress has assigned the Corps new missions and responsibilities, including ecosystem restoration, beach nourishment, brownfield revitalization, nuclear waste cleanup, and a limited number of wastewater treatment and water supply projects. Fiscal conservatives and taxpayer groups argue that the Corps' mission should be more limited so that federal appropriations can be focused on priorities with national benefits that are not already being addressed by other agencies and organizations.

Some taxpayer groups and fiscal conservatives have criticized the expansion of the Corps mission into areas that have been considered local responsibilities and that other institutions are addressing (e.g., U.S. Environmental Protection Agency on brownfield revitalization<sup>44</sup> and wastewater treatment). These taxpayer groups, environmental groups working on urban sprawl issues, and some Members are uncomfortable about authorizations and limited appropriations for the Corps to disburse grants for community wastewater treatment and water supply. Prior to 1992, Corps involvement in municipal water infrastructure had been limited to water supply from Corps reservoirs and was paid for by local project sponsors. Financing community water and sewer systems has traditionally been the responsibility of local

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<sup>43</sup>General Robert B. Flowers, March 15, 2001.

<sup>44</sup>Both the Clinton Administration's legislative program and a bill titled "State and Local Brownfield Revitalization Act" (S. 2335) introduced on March 30, 2000 proposed a \$100 million authorization for Corps remediation at publicly-owned brownfield sites impacting waterways. The Senate hearing on May 23, 2000 included much testimony supporting Corps involvement in brownfield revitalization. Among the reasons cited were consistency with the Corps' existing mission, activities, and competencies.

government, with the federal government providing some directed grants and low-interest loans.<sup>45</sup>

On the topic of mission expansion, some Corps observers who generally oppose change share an interest with reform supporters in limiting the Corps' mission. Both groups argue that new responsibilities dilute the agency's efforts and funding. However, the two groups differ in perspective on how to limit the Corps' mission. Environmentalists advocating reform generally support Corps ecosystem restoration work, but discourage further expansion of the agency's mission. Local sponsors of navigation and flood control projects, who generally oppose reform, fear that the Corps' growing involvement in environmental restoration and other new responsibilities detracts from the agency's ability to carry out its traditional mission. This concern about environmental activities impinging on the traditional mission became particularly acute after the authorization of \$0.7 billion in federal funding for the first phase of the \$7.8 billion Comprehensive Everglades Restoration Plan in WRDA 2000 and in view of the numerous other large Corps restoration projects under development, including projects for the Columbia River, Missouri River, and Great Lakes.<sup>46</sup> Beneficiaries of projects in new mission areas argue against any restrictions on the Corps' mission. They contend that the Corps has unique ability and authority to work in a number of areas that are outside its traditional mission, but are in the national interest.

## Conclusion

Since the 1970s, reform of the Corps and its civil works program has been attempted many times, with few changes being enacted. Interest in changing the agency's policies and procedures has surfaced recently in response to allegations that Corps officials manipulated studies, the Inspector General's finding of an institutional bias at the agency toward large construction projects, and a growing backlog of projects and maintenance activities. The basic reform issues that are being raised before the 107<sup>th</sup> Congress include how to define the civil works mission; how to maximize the effectiveness of limited federal appropriations; whether project approval, review, and environmental mitigation changes are needed; and, if so, how to change the Corps' policies and procedures.

Environmentalists, some fiscal conservatives, and other reform advocates argue that many Corps projects generate significant environmental damage with little economic benefit for the nation. They propose reforms to increase input from the Administration, independent experts, and project stakeholders to offset the perceived institutional bias. Environmentalists support the Corps' growing environmental responsibilities, yet argue for limiting expansion of the mission into other areas. Groups benefitting from navigation and flood control projects favor limiting the

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<sup>45</sup>For more on the federal financing of water projects and programs, see "Federally Supported Water Supply and Wastewater Treatment Programs" (CRS Report RL30478).

<sup>46</sup>For more information on Everglades restoration, see "South Florida Ecosystem Restoration and the Comprehensive Everglades Restoration Plan" (CRS Report RS20702).

mission's expansion beyond these traditional activities and generally support current administration of the agency. Groups benefitting from projects in new mission areas oppose limiting the Corps' expansion and oppose some reform proposals while supporting others. Interest groups are pressing the 107<sup>th</sup> Congress to decide the nature of the civil works mission and how best to direct the Corps to this mission given fiscal constraints.