

CORPS OF ENGINEERS—CIVIL WORKS

The President's Proposal:

- Reduces the backlog of ongoing construction projects and completes those projects in the budget sooner than possible under current spending trends, primarily by not starting new projects—the budget completes 30 projects in 2003, or 15 percent of the projects in the budget;
- Increases funding for priority navigation projects—such as modernizing Olmsted Lock and Dam, Illinois and Kentucky, and deepening the Port of New York/New Jersey—and important environmental restoration efforts in the Florida Everglades and Columbia River Basin;
- Reduces the average time to process an individual wetlands permit by about 25 percent, or 40 days, by 2004, while strengthening protection of wetlands;
- Provides a funding mechanism to reduce the unscheduled “downtime” of Corps hydropower generation facilities by up to 40 percent over the next few years; and
- Supports needed operation and maintenance of existing infrastructure.

Corps of Engineers—Civil Works

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www.hq.usace.army.mil/cepa/cepa.htm
703-697-8986

Number of Employees (2002): 24,800

2002 Spending: \$5.0 billion

Field Offices: Eight Divisions; 38 Districts; 15 laboratories and other offices.

The Army Corps of Engineers Civil Works program is responsible for assisting the development and management of the nation's water resources. Its main missions are to: 1) aid commercial navigation; 2) protect citizens and their property from flood and storm damages; and 3) protect, restore and manage environmental resources. The Corps carries out most of its work in partnership with state and local governments and other non-federal entities.

Overview

The Civil Works program has seven primary business lines: 1) navigation; 2) flood control and coastal storm damage reduction; 3) environment; 4) recreation management; 5) hydropower; 6) regulatory; and 7) emergency management. Implementing these business lines involves the Corps of Engineers in the planning, construction, operation or maintenance of over 8,000 civil works projects. These include about 900 ports and harbors and over 275 locks and dams for navigation, 4,300 recreation areas, and 75 hydropower generation facilities. The Corps' investments in new construction projects are typically joint ventures with non-federal sponsors. With the exception of navigation projects and multipurpose reservoirs, the local sponsor usually owns, operates, and maintains the project once it is built.

Congress periodically directs the Corps to work in other areas that duplicate existing federal programs or are activities that should be carried out by non-federal interests. This "mission creep" diverts the Corps from its primary business lines, slows down completion of higher priority construction projects, and postpones the benefits that completing these projects would bring.

Status Report On Select Programs

The Administration is reviewing programs throughout the federal government to identify strong and weak performers. The accompanying table provides its assessment of program performance for each of the Corps' primary business lines. The budget for the Corps proposes to redirect funds from the Corps' lesser performing projects and programs to higher priority or more effective ones and to improve performance in other areas.

Program	Assessment	Explanation
Navigation: Deep-draft	Moderately Effective	Planning is typically done project-by-project rather than considering nationwide needs systematically.
Shallow-draft	Ineffective	Many projects provide recreational benefits rather than commercial benefits.
Inland waterways	Moderately Effective	Ohio and Mississippi River systems highly efficient, but some other segments benefit few commercial users; traffic management system needs improvement; heavily subsidized by the federal government.
Flood and Storm Damage Reduction	Effective	Projects meet performance goals; concerns with inadequate local cost-sharing of shore protection projects.
Environmental Restoration	Unknown	Little data on environmental outcomes of completed restoration projects and other environmental activities.
Recreation Management	Moderately Effective	Generally high customer satisfaction; many facilities are obsolete.

Program	Assessment	Explanation
Hydropower	Moderately Effective	Opportunities exist to reduce facility “downtime.”
Regulatory	Moderately Effective	Opportunities exist to accelerate permit processing; little data on environmental outcomes of permit actions.
Emergency Response	Effective	Consistently high performance.

Congressional Earmarks

The 2003 Budget focuses Corps funding on the main Civil Works mission areas that benefit the nation—commercial navigation, flood damage reduction, and environmental restoration.

In recent years, the Congress has authorized and appropriated funds for the Corps to undertake an increasing number of projects that fall outside the scope of its historic missions, such as building sewage treatment plants, revitalizing local waterfronts, and maintaining waterways primarily for local recreation. Whatever the merit of these projects, they should be carried out by others. For instance, the Environmental Protection Agency (EPA) provides funds specifically for building sewage treatment plants. These ancillary projects divert resources and delay completion of economically justified projects that are within the Corps’ primary mission areas.

Congressional Earmarks

Year	Number	BA in millions of dollars	Percent of Total Budget Authority
2001.....	405	367	8%
2002.....	604	431	10%

Unrequested earmarks include congressional directives that preempt the administrative allocation process for small projects in the Corps’ “continuing authorities” programs, and directives for larger projects outside the Corps’ mission areas. For example, in 2002, over three-fourths of the funding for congressionally added projects in the Corps’ construction program were for projects that are inconsistent with long-established policies for the Corps of Engineers, which should not be part of the Corps program. These include over 30 of the 47 new construction projects started in 2002. It would require about \$5 billion to complete all the projects added by the Congress that are inconsistent with Corps policies—that’s \$5 billion diverted from nationally important navigation, flood damage reduction, and environmental restoration projects already underway.

Mission Creep

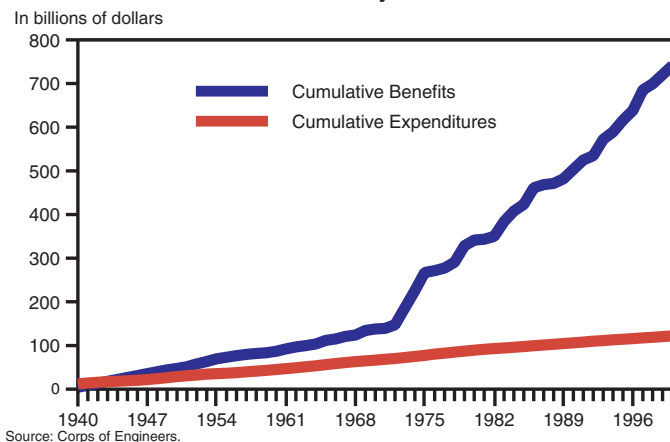
In 2002, the Congress earmarked \$500,000 to start construction of the Florida Keys Water Quality Improvements project, a wastewater treatment initiative that would require about \$100 million to complete. Corps funding of such projects circumvents procedures in EPA’s Clean Water State Revolving Fund (CWSRF) for ensuring that these funds address the state’s highest priority wastewater needs. Florida received nearly \$46 million of CWSRF funding in 2002.

and environmental restoration projects already underway.

Flood Damage Reduction

The Corps estimates that its existing flood damage reduction projects prevent about \$21 billion in damages in an average year, and over time have returned \$6 for every \$1 invested (see accompanying chart). These benefits vary greatly from year-to-year depending on flood events. Despite these federal investments, flood damage nationwide is increasing. Federal, state, and local decisions can diminish or increase flood risks and affect flood damages.

Corps Flood Damage Reduction Projects:
\$6 Returned for Every \$1 Invested



Besides funding justified investments in Corps flood damage reduction projects, the 2003 Budget will continue assistance to states and communities to reduce flood risks through planning and promoting better floodplain management. The Corps is also increasingly incorporating environmentally beneficial designs into its flood damage reduction projects. For example, the project to protect the City of Napa, California, reestablishes former marshes and floodplains along the Napa River. These areas will provide wildlife habitat as well as space to convey floodwaters away from the city.

The Administration’s goal is to ensure that the American people get the most flood protection for each dollar invested. The accompanying table is a rough comparison of the estimated return that the Corps expects from each dollar it spends on flood damage reduction projects with returns for selected federal programs with a similar objective. As discussed in the Department of Agriculture chapter, the 2003 Budget proposes to reduce federal funding for the Natural Resource Conservation Service’s Small Watershed Program, which has a

lower economic return than both the Corps or the Federal Emergency Management Agency (FEMA) programs. The budget also proposes to restructure FEMA’s 404 hazard mitigation program to improve its effectiveness, as discussed in the FEMA chapter.

**Benefits from Each Dollar Invested in Selected
Federal Flood Damage Reduction Programs**

Corps of Engineers	Federal Emergency Management Agency’s 404 Flood Risk Mitigation ¹	Department of Agriculture’s Small Watershed Program
\$1.90	\$2.30	\$1.40



Corps personnel are often among the first people on the scene in flood emergencies.

The Corps provides emergency assistance during and after floods or coastal storms to save lives and protect public facilities and critical infrastructure. As part of its emergency response mission, the Corps also assists FEMA, states, and localities with responses to natural and other disasters. Corps personnel are often among the first people on the scene in flood and other emergencies, providing pumps, generators, sandbags, clean water, and technical assistance to search and rescue operations. For example, the Corps assisted FEMA in responding to the terrorist attacks of September 11th, by providing the New York City Fire Department interim communications

equipment to replace phone lines destroyed by the attacks, evaluating the safety of damaged buildings, providing emergency power to the financial district, and assisting with debris removal and disposal. With regard to homeland security, the budget provides \$65 million for the continuing costs of additional guard positions at critical Corps facilities.

¹ Cost-benefit estimate is for flood-related projects in the 404 Mitigation program. FEMA cost-benefit comparisons are not strictly comparable due to differences in methods used to measure costs and benefits. Also, some projects in the FEMA program were exempted from cost-benefit requirements by law or regulation, because of presumed benefits.

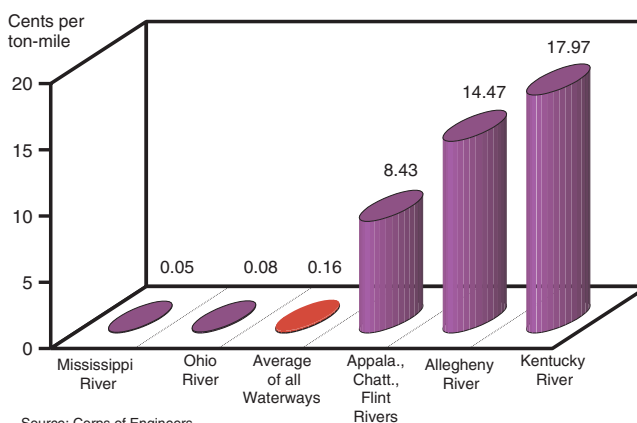
Navigation

The Corps maintains nearly 11,000 miles of commercial waterways and hundreds of ports and harbors, typically through lock operations and dredging. The Corps estimates that its navigation activities provide about \$20 billion in benefits every year. Each dollar it spends in 2003 to construct commercial navigation projects will return an average of \$3.30 in benefits upon project completion.

The 2003 Budget targets funds to those waterways providing the greatest economic return to the nation, and limits funding for those with little commercial traffic. It includes \$77 million for construction of Olmsted Lock and Dam in Illinois and Kentucky, an increase of \$37 million over 2002, to expedite completion of this important modernization project on the Ohio River. The budget also provides \$120 million, an increase of \$31.5 million over 2002, to accelerate the transportation cost savings and other economic benefits of deepening the Port of New York/New Jersey.

The Corps operates and maintains some harbors and segments of the inland waterway system that benefit few commercial users. The accompanying chart shows the wide variation in cost to operate and maintain segments of the inland waterway system in terms of cost per commercial ton-mile, where the lower cost is indicative of higher commercial benefits. The 2003 Budget targets funds to those waterways that provide the greatest economic return, and substantially reduces funding for those that provide minor commercial navigation benefits. For two projects with minimal commercial usage—the navigation features on the Fox River, Wisconsin, and Locks and Dams 5 through 14 on the Kentucky River, Kentucky—the Corps is in the midst of transferring ownership, operation, and maintenance responsibilities to non-federal interests.

Corps of Engineers Costs to Operate and Maintain Selected Inland Waterways



Environmental Restoration

Enhancing the environment is another Corps main mission. The 2003 Budget includes substantial funding for Corps of Engineers environmental projects:

- The budget provides a total of \$245 million for Everglades restoration. This includes Corps funding of \$149 million, a \$10 million increase over 2002, and \$96 million for programs within the Department of the Interior. The budget includes \$46 million specifically for implementation of the Comprehensive Everglades Restoration Plan, of which \$37 million is for the Corps and \$9 million is for research, monitoring, and planning studies in the Department of the Interior. Everglades restoration efforts may start to pay off as early as September, 2003, when five of the 68 known federally endangered and threatened species in South Florida are expected to be changed from “endangered” status to “threatened” status or removed from the list of federally protected species.

- The budget ensures that the Corps will meet environmental requirements for salmon conservation in the Columbia River Basin (WA, OR, ID). It provides \$128 million for the Corps’ salmon conservation efforts, a \$19 million, or 17 percent, increase over 2002 funding. This allocation includes \$100 million for the Columbia River Fish Mitigation and Lower Columbia River Ecosystem Restoration programs, \$17 million for operation and maintenance activities, and \$11 million for studies and other activities needed to ensure compliance.

Many of the Corps’ ecosystem restoration projects are designed to improve the nation’s wetlands resources. Other federal programs have a similar purpose. The accompanying table provides a rough, first-order comparison of the Corps’ per-acre costs with two programs of other federal agencies with a similar mission, the Department of the Interior’s North American Wetlands Conservation Fund and the Department of Agriculture’s Wetlands Reserve Program. It is difficult to draw definite conclusions about program performance because the underlying cost of the land and the type and quality of resulting habitat can vary significantly by project and program. For this reason, the Administration will work over the next year to refine these data and to determine whether reallocating funds among the agencies would further improve the nation’s wetlands.

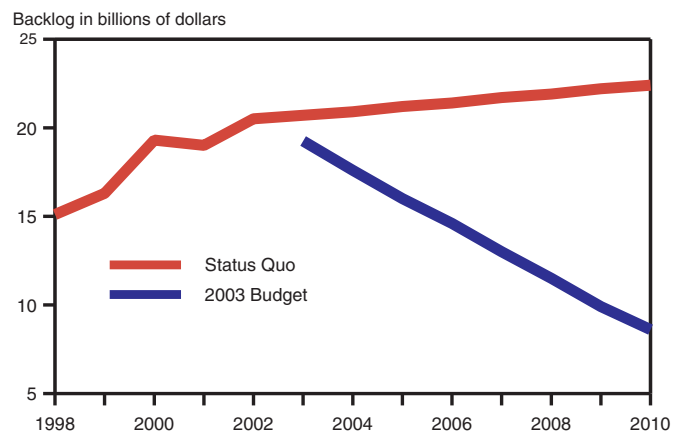
Average Cost to Establish an Acre of Wetlands

Corps of Engineers	Department of the Interior	Department of Agriculture
\$3,900	\$2,250	\$1,200

Improving Performance

The Corps must work in a number of ways to improve its performance delivering services to the public. The Corps estimates that the balance of funding needed to complete all active construction or pre-construction work (including projects that are being studied, but are not yet authorized for construction) is over \$40 billion. Of this, more than \$21 billion of future federal funding is necessary to complete the flood control, navigation, and environmental restoration projects funded in the budget for the Corps’ primary construction program. Therefore, its major challenge is to complete those projects already underway in its primary construction program. This backlog needs immediate and sustained attention. It is about 12 times the entire amount appropriated in 2002 for the construction program (\$1.7 billion). Put another way, it would take 12 years at the rate of funding the Congress provided in 2002 for the Corps just to finish funding the ongoing construction projects supported in the budget. Unfortunately, as the accompanying chart shows, this backlog of ongoing construction projects has increased in recent years, as the Congress has added funds to start more new projects than can be afforded. The 2003 Budget proposes to reverse this trend.

Reducing the Construction Backlog



This increasing backlog also hurts the Corps' overall performance, as each new project diverts resources from completing ongoing construction efforts. This means the benefits the public reasonably expects to receive from these projects are often delayed significantly. For example, construction work on Olmsted Lock and Dam began in 1991 and was scheduled for completion by 2006. However, it may not be finished until 2011.

There are only three ways to shrink the backlog of ongoing, budgeted construction projects:

- provide more funding;
- defer or cease work on some ongoing projects; or
- stop adding new projects.

Recent experience demonstrates that more funding alone does not cut this backlog. During the last six years, funding for the Corps construction budget has increased more than 50 percent, but the backlog has grown by 43 percent. Backlog growth occurred because more new projects were started than could be funded efficiently.

Deferring or ceasing work is an option, but it is difficult to stop a project already underway. The Administration is reviewing projects in the backlog to determine whether any should be delayed in order to accelerate completion of others, but this is unlikely to dramatically change the situation because the number of such projects appears to be small.

That leaves not starting new projects. Stopping the flow of new commitments is a logical step toward completing ongoing projects sooner. To the extent that the need for a particular new project is compelling, it may be necessary to defer funding of one or more ongoing projects.

Finally, an additional important challenge confronts the Corps. If it is to improve its performance in its main missions, it must find ways to prevent the diversion of resources away from these missions. As noted previously, many of the unrequested Corps projects added by the Congress are either not a federal responsibility or should be funded by other federal programs. The budget does not include funds for the Corps to continue these projects.

Focus on Completing Projects

The budget reduces the backlog of ongoing construction projects in the budget from \$21 billion to \$13 billion over the next five years by:

- providing \$1.44 billion for the Corps' ongoing construction program in 2003 and comparable levels in future years;
- providing no funds for discretionary new construction in 2003;
- targeting funding to projects that fall within the Corps' primary missions; and
- dropping funding significantly for studies of potential future construction projects.

These actions will allow the Corps to complete 30 projects in 2003, which is 15 percent of the construction projects in the budget, and to complete other ongoing projects in the budget sooner than possible under current spending trends.

The 2003 Budget includes several other initiatives to improve the Corps' performance. It proposes a \$17 million, or 13 percent, increase in funding for the Corps' regulatory program for activities affecting navigable waters and wetlands. This increase would allow the Corps to reduce the average time for reviewing individual permit applications to 120 days by 2004, compared to the estimate of 160 days for 2002. The funding boost also would allow the Corps to issue 70 percent of individual permits within 120 days, compared to the estimate of 54 percent for 2002. It would strengthen protection of wetlands by supporting watershed approaches in sensitive areas and through improved oversight of mitigation efforts.

The budget also includes a proposal for the Power Marketing Administrations to provide direct funding from power sales revenues for the operation and maintenance costs of Corps' hydropower facilities. This new financing arrangement will permit more timely maintenance of hydropower facilities, which will enable the Corps to reduce facility "downtime" and increase power generation.

Improving Hydropower Performance

In 1999, the General Accounting Office found that the Corps' hydropower facilities are twice as likely to experience "unplanned outages" as private-sector facilities, because the Corps does not always have funds for maintenance and repairs when needed. Such outages result in lost power production. The budget's proposal for direct funding of the Corps hydropower maintenance by Power Marketing Administration customers should enable the Corps to cut its unscheduled "downtime" by up to 40 percent over the next few years and achieve a performance level matching that of non-federal hydropower facilities.

Strengthening Management

The Corps of Engineers has made progress addressing certain parts of the President's Management Agenda. For example, the Corps expects to achieve a clean opinion on its balance sheet for 2001. However, it has made little progress on other initiatives, and has failed to develop a satisfactory plan to achieve the President's goals for competitive sourcing and human resources. A scorecard and summary of the Corps' status is shown below.

In addition, the 2002 Budget *Blueprint* highlighted reforms needed in the Corps' project planning process to ensure higher quality, objective analysis of potential construction projects. The Army Corps of Engineers has made some progress on these reforms. The Assistant Secretary of the Army for Civil Works has established a new group to strengthen the policy consistency of Corps studies. The Administration will soon release its proposal for independent review of significant projects, another reform highlighted in the *Blueprint*.

Initiative	2001 Status
<p>Human Capital—The Corps has reduced its staff and supervisory ratio over the past eight years. However, its human capital plan does not adequately address competitive sourcing, e-government, workforce skills, or field office workload and staffing requirements. The Corps plans to complete a human resources plan by March 2002.</p>	●
<p>Competitive Sourcing—The Corps currently contracts out about 60 percent of its work, but still has a significant inventory of commercial work performed by governmental employees. It has agreed to complete its assessment of competitive sourcing opportunities and its competitive sourcing plan by September 2002, to achieve the Administration's two-year 15 percent goal in an effort to eventually compete 50 percent of all commercial activities.</p>	●
<p>Financial Management—Auditors were unable to give an opinion on the Corps' 2000 financial statements because of unresolved issues with valuing property, plant, and equipment, and a material weakness with computer security. The Corps expects to achieve a clean opinion on its 2001 statements.</p>	●
<p>E-Government—The Corps failed to prepare adequate business cases for all of its major information technology investments. It is developing business cases and improving the planning and control processes that support these investments.</p>	●
<p>Budget/Performance Integration—The Corps' 2003 Budget submission included little integration of either outcome or output performance information to support proposed resource levels. The Corps will improve performance information in several key areas for the 2004 Budget (e.g., operation and maintenance and regulatory activities).</p>	●

Corps of Engineers—Civil Works

(In millions of dollars)

	2001	Estimate	
	Actual	2002	2003
Spending:			
Discretionary Budget Authority:			
Construction, General	1,736	1,736	1,440
Operation and Maintenance, General	2,046	1,939	1,979
General Investigations	166	159	108
Flood Control, Mississippi River and Tributaries	366	353	288
Regulatory Program	131	134	151
All other programs	350	276	323
Subtotal, Discretionary budget authority adjusted ¹	4,795	4,597	4,290
Legislative Proposal, Operation and Maintenance	—	—	-149
Remove contingent adjustments	-108	-111	-115
Total, Discretionary budget authority	4,687	4,486	4,026
Emergency Response Fund, Budgetary resources	—	139	—
Mandatory Outlays:			
Operation and Maintenance, General:			
Existing law	3	3	55
Legislative proposal	—	—	-6
Total, Mandatory outlays	—	—	49

¹ Adjusted to include the full share of accruing employee pensions and annuitants health benefits. For more information, see Chapter 14, "Preview Report," in *Analytical Perspectives*.