

Budgeting for Federal Water Projects

EOP Foundation
Washington, DC

**Report to the Western Water
Policy Review Advisory Commission**

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October 1997

The Western Water Policy Review Advisory Commission

Under the Western Water Policy Review Act of 1992 (P.L. 102-575, Title XXX), Congress directed the President to undertake a comprehensive review of Federal activities in the 19 Western States that directly or indirectly affect the allocation and use of water resources, whether surface or subsurface, and to submit a report of findings to the congressional committees having jurisdiction over Federal Water Programs.

As directed by the statute, the President appointed the Western Water Policy Review Advisory Commission. The Commission was composed of 22 members, 10 appointed by the President, including the Secretary of the Interior and the Secretary of the Army, and 12 members of Congress serving ex-officio by virtue of being the chair or ranking minority member of the 6 congressional committees and subcommittees with jurisdiction over the appropriations and programs of water resources agencies. A complete roster is provided below.

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This is an Independent Report to the Commission

The report published herein was prepared for the Commission as part of its information gathering activity. The views, conclusions, and recommendations are those of the author(s) and are not intended to represent the views of the Commission, the Administration, or Members of Congress serving on the Commission. Publication by the Commission does not imply endorsement of the author's findings or recommendations.

This report is published to share with the public the information and ideas gathered and considered by the Commission in its deliberations. The Commission's views, conclusions, and recommendations will be set forth in the Commission's own report.

Additional copies of this publication may be obtained from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia, 22161; phone 703-487-4650.

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Introduction and Summary

This report:

- Provides an overview of total budget and deficit reduction efforts by the Administration and the Congress,
- Provides an analysis of individual water resource programs and highlights the trends and policy issues that are clearly identified in the budget analysis, and
- Addresses the use of coordinated program and budget development among Federal agencies.

The Congress and the President recently concluded an agreement on a budget plan for the years 1998 through 2002 that will lead to a balanced budget by the year 2002. Many details remain to be resolved. Of most significance to future water budgets is that outlays for non-defense discretionary funding, that is funding appropriated annually, will grow by only two percent between 1997 and 2002. In non-inflated dollars, that is a reduction of more than 10 percent.

The report accompanying the Congressional Budget Resolution identifies certain program areas as priorities. Except for the water-related portion of programs dealing with environmental clean-up, water resources are not listed as a priority. Corps of Engineers programs are identified as a potential area for reduction.

The projections in the President's budget of February 1997 imply that the level of spending for water related programs will decline from an estimated \$10.3 billion in 1997 to \$10.0 billion by 2002. In non-inflated dollars, the outlays in 2002 would be 15 percent below the 1997 level with substantial reductions for the Bureau of Reclamation (33 percent), Department of Agriculture water-related programs (27 percent), and Corps of Engineers (20 percent). Even with a planned funding increase, Environmental Protection Agency outlays will not keep pace with inflation. The budget agreement is likely to require even further reductions to water programs.

These funding trends are likely to result in greater emphasis on cost sharing and more critical review in the selection of new projects.

Reduced funding will place a premium on improved coordination of programs among the departments and agencies. Extensive coordination is taking place

on major projects such as Everglades restoration, Colorado River, and the California Bay-Delta. Where coordination could be improved is in the multitude of smaller projects.

A first step toward enhancing water supply through improved project coordination would be articulation by the Administration of a policy statement that places emphasis on the water supply content of environmental, recreation, flood control, and energy production.

The second step would be improved interagency coordination at the regional level. The alternatives for this vary from increased OMB participation at the project level, to assigning departments as regional coordinators, to creation of regional advisory committees composed of non-government experts, to enhanced interagency coordination, and to creation of Interstate Compacts.

Overview of Total Budget and Deficit Reduction Efforts by the Administration and the Congress

Total Federal Budget

The President and the Congress on May 16, 1997, concluded an agreement on the budget for the years 1998 through 2002. Although many details remain to be resolved, an overall framework and certain major items have been decided. Chief among these is the agreement on a balanced budget in 2002 (Table 1).

Table 1.—Aggregate estimates in May 16th budget agreement
(\$ in billions)

	1997	1998	1999	2000	2001	2002
Spending	1,622	1,692	1,754	1,811	1,858	1,889
Revenue	1,555	1,602	1,664	1,728	1,805	1,890
Deficit (-)/surplus (+)	-67	-90	-90	-83	-53	1

Source: "The Balanced Budget Agreement of 1997 Summary of Major Assumptions," prepared by the House Committee on the Budget Majority Staff, May 16, 1997.

Under the agreement, revenue in 2002 will be 1.0 percent lower than would have otherwise occurred due to reductions in individual income taxes. Spending in 2002 will be about 6.3 percent lower than would have occurred under current law on entitlement programs and with increased funding to cover inflation in departmental budgets. The deficit in 2002 would have been about \$105 billion under the current law budget baseline.

Total spending in fiscal year 1997 by the Federal government is estimated at more than \$1.6 trillion dollars (Figure 1).

Spending is categorized as either discretionary or mandatory.

- *Discretionary spending* is that which must be appropriated each year. Funding for discretionary programs is provided annually in 13 Appropriations acts passed by the Congress and signed by the President. Examples of discretionary funding include defense, international affairs, and a variety of domestic programs, e.g., water, space, and scientific research. The outlays for these and other discretionary programs are estimated at \$548 billion in 1997 (34 percent of all Federal spending.) Although discretionary spending is projected to increase to \$561 billion in 2002, it will decline to only 30 percent of all Federal spending. In the late 1960's, discretionary spending accounted for almost 70 percent of the budget.
- *Mandatory (or direct) spending* is that which will occur without further action by the Congress. Examples include entitlement programs such as Social Security, Federal civilian and military retirement, and Medicare. Interest on the national debt is mandatory. Mandatory spending accounts for about two-thirds of the budget.

A dramatic shift in spending shares between mandatory and discretionary occurred over the last 35 years. Most of the spending growth was in mandatory spending, and that trend is to continue (Figure 2). Spending on discretionary programs has been held relatively flat since 1990 at about \$550 billion per year as a part of deficit reduction. In constant dollars, that is in dollars adjusted for inflation, outlays for discretionary programs have declined since 1991.

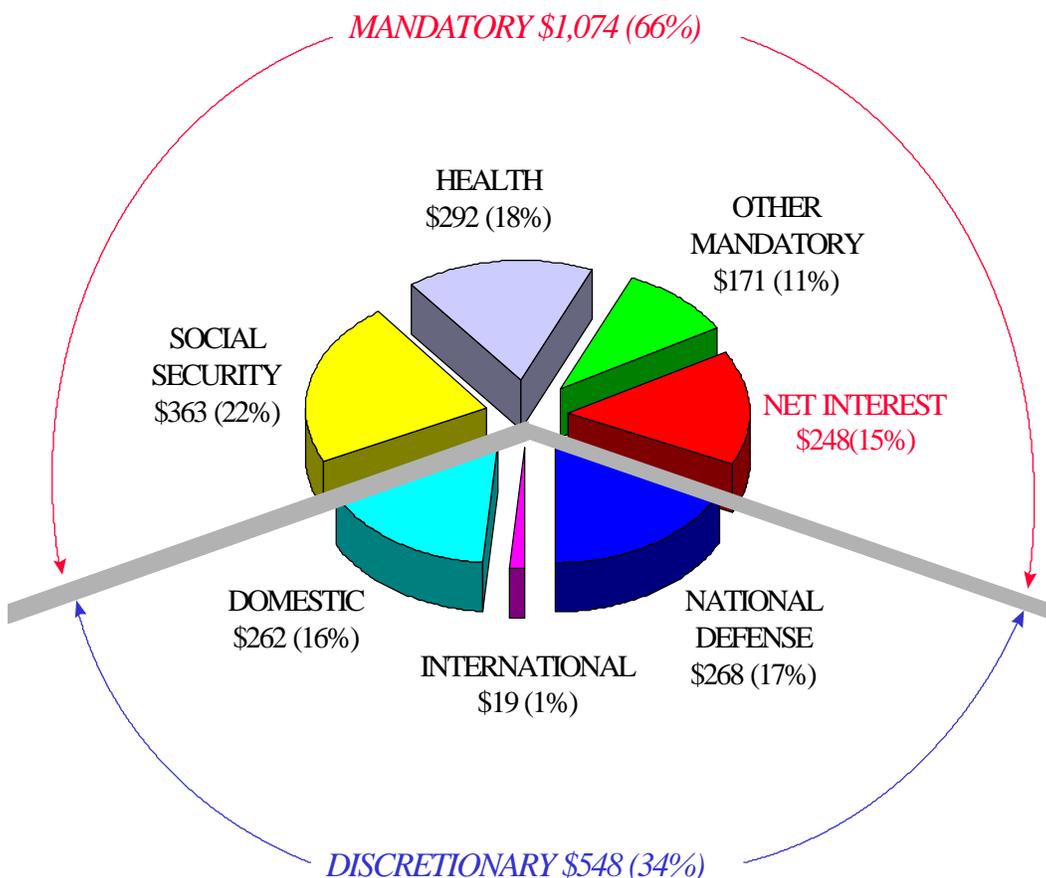
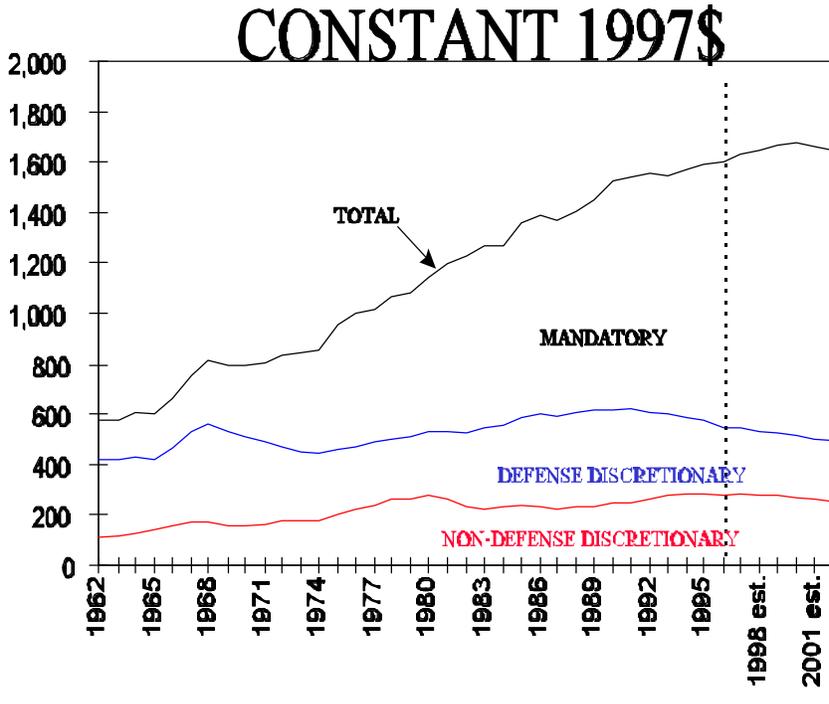
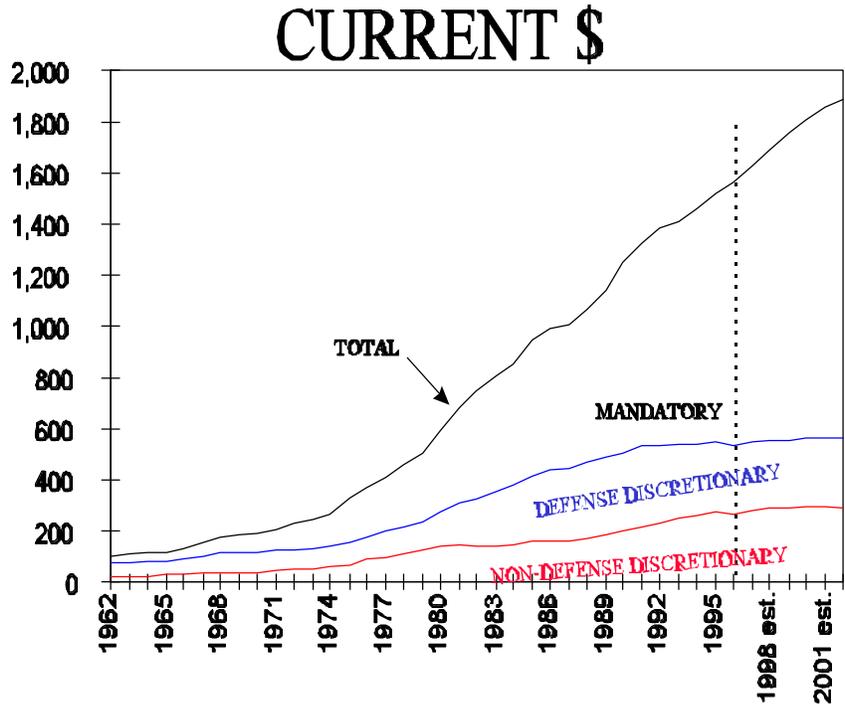


Figure 1.—Total federal spending in 1997
(Outlays—\$ in billions)
Total spending in 1997 = \$1,622 billion.

Source: Report on Concurrent Resolution on the Budget for Fiscal Year 1998

Budget Targets for 1998 Through 2002

The budget agreement permits increases in non-defense discretionary spending through the year 2000, after which spending decreases are planned to meet the year 2002 target of a balanced budget. (Table 2). Mandatory spending will continue to increase in all years even with reductions in projected costs of Medicare and other entitlement programs. By 2002, mandatory spending will be 24 percent higher than in 1997, while discretionary spending will increase by just 2 percent during the same period.



SOURCE: OMB

Figure 2.—Trends in federal spending
(Outlays—\$ in billions)
1962-1996 actual results—1992-2002 estimates.

Table 2.—Mandatory and discretionary spending
(\$ in billions)

	1997	1998	1999	2000	2001	2002	Percent change 1997 to 2002
Discretionary							
Defense	268	267	267	269	271	273	2
Non-defense	<u>281</u>	<u>286</u>	<u>293</u>	<u>295</u>	<u>294</u>	<u>288</u>	2
Total	548	553	559	564	564	561	2
Mandatory							
Total	1,074	1,139	1,194	1,247	1,294	1,328	24
Total	1,622	1,692	1,754	1,811	1,858	1,889	16

Source: Report on Concurrent Resolution on the Budget for Fiscal Year 1998

To meet the mandatory spending targets, the Congress will make changes to existing laws on Medicare and other entitlement benefits in a Reconciliation Bill that is now being formulated.

To meet the discretionary spending targets, the Congress has placed a cap or limit on the overall level of annual appropriations that can be requested by the President and appropriated by the Congress. The annual appropriations are in the form of budget authority, which is the authority to obligate the government to a stream of payments or outlays. Annual appropriations must be at or below the limits. If appropriations or estimated outlays from those appropriations exceed the limits, they will be brought into line through a process called sequestration. Under sequestration, the level of appropriations is automatically reduced across all accounts.

Non-Defense Discretionary Spending Targets

Meeting the targets for non-defense discretionary funds will require real program reductions below current levels, i.e., the funding will not increase as fast as inflation. The baseline for the resolution is the amount of money required each year to maintain the real 1997 budget level.

Comparing the baseline to the resolution shows the magnitude of the real program reductions. For 2002, non-defense discretionary outlays are 10 percent below the baseline levels (Table 3).

Table 3.—Non-defense discretionary outlays
(\$ in billions)

	1997	1998	1999	2000	2001	2002
Resolution	281.0	286.4	292.8	295.3	293.7	287.7
Baseline	281.0	287.5	295.3	303.3	311.1	320.0
Percent change from baseline		-0.4	-0.8	-2.6	-5.6	-10.1

Source: Report on Concurrent Resolution on the Budget for Fiscal Year 1998

Budget Functions

The budget is divided into budget functions that represent major national objectives. Non-defense discretionary funding is spread across 16 budget functions. The Congressional Budget Resolution (CBR) passed by Congress on June 6th, allocates the non-defense discretionary funds to each of these 16 budget functions. Education, Training, Employment and Social Services is the only function with outlays in 2002 that are above the inflation-adjusted baseline (Table 4).

Table 4.—Budget functions with non-defense discretionary funds
Outlays (\$ billions)

	2002			Percent real change
	1997	Baselin e	Resolu- tion	
International Affairs (150)	19.2	20.4	18.4	-10
General Science, Space and Technology (250)	17.0	18.8	15.6	-17
Energy (270)	4.9	4.9	4.4	-9
Natural Resources and Environment (300)	21.5	24.4	21.5	-12
Agriculture (350)	4.2	4.8	3.8	-21
Commerce and House Credit (370)	2.8	3.3	2.7	-18
Transportation (400)	36.9	41.7	39.4	-6
Community and Regional Development (450)	11.7	10.4	8.4	-19
Education, Training, Employment and Social Services (500)	40.3	47.9	48.6	2
Health (550)	23.8	28.2	24.3	-14
Medicare (570) ¹	2.7	3.2	2.6	-19
Income Security (600)	40.9	46.1	40.8	-12
Social Security (650) ¹	3.4	4.1	3.1	-24
Veterans Benefits and Services (700)	19.3	21.5	17.9	-17
Administration of Justice (750)	20.4	26.6	24.7	-7
General Government (800)	<u>11.9</u>	<u>13.7</u>	<u>11.4</u>	-17
	281.0	320.0	287.7	-10

¹ These are administrative costs only. Benefits are mandatory spending.
 Source: Report on Concurrent Resolution on the Budget for Fiscal Year 1998

Targets for Natural Resources and Environment (Function 300)

Over 80 percent of the funds for water projects are provided by programs in budget function 300 (Natural Resources and Environment). Programs in this function are designed to develop, manage, and maintain the nation's natural resources, and to protect public health by ensuring a clean environment. Funding is provided for water resources, conservation and land management, recreational resources, and pollution control and abatement.

The major departments and agencies with programs in this function include the Department of the Interior, the Department of Agriculture, the Army Corps of Engineers—Civil (Corps), the Environmental Protection Agency (EPA), and the National Oceanic and Atmospheric Administration (NOAA) of the Department of Commerce.

Year 2002 outlays for function 300 are projected at \$21.5 billion in the CBR, compared to \$24.4 billion in the budget baseline, and \$22 billion requested by the President in the February 1997 budget. Estimated 2002 outlays for Function 300 are 12 percent below the baseline (inflation-adjusted 1997) level. In constant dollars, the appropriations in 2002 in this function will be 16 percent below the 1997 baseline (Table 5).

Table 5.—Function 300 discretionary funding
 (\$ in billions)

	1997	1998	1999	2000	2001	2002
CBR						
Budget authority	21.5	22.8	22.2	21.6	21.2	21.2
Outlays	21.5	21.4	21.7	21.9	21.8	21.5
Baseline						
Budget authority	21.5	22.2	22.9	23.6	24.4	25.2
Outlays	21.5	21.1	21.8	22.7	23.7	24.4
Difference						
Budget authority		0.6	-0.7	-2.0	-3.2	-4.0
		+3%	-7%	-8%	-13%	-16%
Outlays		0.3	-0.1	-0.8	-1.9	-2.9
		+1%	-0%	-4%	-8%	-12%

Source: Report on Concurrent Resolution on the Budget for Fiscal Year 1998

Within the function 300 allocation, the Congress has indicated that certain programs should be given priority, as follows:

- Superfund appropriations will be at the President's requested level assuming new authorization language can be developed.
- The EPA Operating Program, Operation of the National Park System, Land Acquisition and State Assistance, and Everglades Restoration Fund (National Park Service and the Corps of Engineers) are considered protected priorities at the President's requested level, consistent with the Bipartisan Budget Agreement.

Programs identified for potential reduction are Forest Service and Bureau of Land Management Wildfire Management, Forest Service Construction and reconstruction, and Corps of Engineers.

Bureau of Reclamation (BOR) and other water supply programs are not among the priorities listed in the Budget Agreement or the CBR. Due to the priority given to EPA and a few other selected programs in function 300, water programs over the next five years are likely to be funded at levels below those proposed by the President in the February budget. Especially vulnerable are Corps of Engineers projects, which have been identified for potential reduction.

Function 300 is further divided into the following subfunctions:

- 301 Water Resources
- 302 Conservation and Land Management
- 303 Recreational Resources
- 304 Pollution Control and Abatement
- 306 Other Natural Resources

The Budget Resolution does not contain spending targets for the subfunctions.

Total Funds for Water Related Projects

In developing an estimate of total Federal spending for water, each account in the Federal budget was examined to identify those with funds used in total or in part for water-related projects. The portion of each account potentially going for water projects was estimated. For programs in Subfunction 301

this is clear-cut. For the programs in other functions, the estimates are more uncertain and subjective. That process resulted in a list of departments and agencies with direct or indirect outlays for water programs (Table 6). The table also shows the estimated outlays for water-related projects in 1997 and the Subcommittees of the Appropriations Committee that prepare the Appropriations Bills.

Water programs are spread over 15 bureaus and agencies, six cabinet departments, and five different Appropriations Subcommittees provide funding.

Budget Subfunctions 301 (Water Resources) and 304 (Pollution Control and Abatement) account for about 83 percent of all estimated 1997 water related outlays. Another nine percent of water outlays are in other parts of Function 300. Most of the remaining projects are in function 450 (Community and Regional Development) for rural and Indian territory water projects and claims.

Funding for water-related programs has been increasing in recent years. Funding in constant, inflation-adjusted dollars, however, has been declining since the early 1980's (Figure 3). Peak funding in constant dollars occurred in the late 1970's and early 1980's when significant funding was provided for grants for clean water and drinking water programs. Continuing declines are projected in the President's budget for 1998 through 2002. (A detailed breakdown of funding in the President's February budget for water is at Attachment A.)

Actual funding for 1998 and beyond is likely to be less than shown in Figure 3 and in Table 7 because the CBR projects outlays below those in President's budget for 2002 for total non-defense discretionary spending (2 percent) and for Function 300, Natural Resources and Environment (3 percent).

Obtaining additional funding for water programs will require reductions in other discretionary programs in the budget as a result of the cap on total discretionary outlays and budget authority. That will not be easy to achieve as all almost all other programs in the budget are also declining.

Overview of Total Budget and Deficit Reduction Efforts by the Administration and the Congress

Department of State		Commerce, Justice											
	International Commissions						29				29	29	*
Department of Energy		0	0	0	0	0	0	0	0	0	17	17	*
	Power Marketing Administrations									0	27	27	*
	Federal Energy Regulatory Commission									0	-10	-10	*
Tennessee Valley Authority										0	44	44	*
	Total		4964	3614	444	300	221	9543	708	36	17	10329	100
	%		48%	35%	4%	3%	2%	92%	7%	*	*	100%	
	* Less than .05%.												
	Details may not add to totals due to rounding.						Source: EOP Group Analysis of Back-up data provided with 1998 Budget						

Budgeting for Federal Water Projects

Table 7.—Water-related outlays in the President's February 1997 budget by agency
(\$ in billions)

	1997	1998	1999	2000	2001	2002	Percent change from 1997
EPA	3.6	3.7	4.0	4.1	4.2	4.1	14
Corps of Engineers	3.7	3.4	3.3	3.3	3.3	3.3	-9
Agriculture	1.2	1.0	0.9	0.9	0.9	1.0	-17
Bureau of Reclamation	1.0	0.8	0.9	0.9	0.8	0.7	-24
Other Department of the Interior	0.5	0.4	0.4	0.4	0.4	0.5	6
Other	<u>0.4</u>	<u>0.4</u>	<u>0.3</u>	<u>0.3</u>	<u>0.3</u>	<u>0.3</u>	-25
Total	10.3	9.8	10.0	10.2	10.2	10.0	-3
Constant 1997 \$							
EPA	3.6	3.6	3.8	3.8	3.8	3.6	-1
Corps of Engineers	3.7	3.3	3.1	3.1	3.1	2.9	-20
Agriculture	1.2	1.0	0.9	0.9	0.8	0.9	-27
Bureau of Reclamation	1.0	0.8	0.8	0.8	0.7	0.6	-33
Other Department of the Interior	0.5	0.5	0.5	0.5	0.5	0.5	-7
Other	<u>0.4</u>	<u>0.4</u>	<u>0.2</u>	<u>0.2</u>	<u>0.2</u>	<u>0.2</u>	-34
Total	10.3	9.5	9.5	9.4	9.2	8.7	-15

Source: EOP Group Analysis of Backup data provided with the Budget of the United States Government, Fiscal Year 1998

Distribution of Spending by Type of Activity

The water programs of the many agencies serve a variety of purposes. Some increase the supply of water, some clean-up dirty water or keep pollutants from reaching water sources, some prevent flood control problems, some maintain and preserve dams and other structures, and others increase understanding of water flows and other important water issues. Many programs serve several purposes. Because of this overlap, categorizing spending tends to appear to be arbitrary. Nevertheless, an examination of trends is useful for understanding the priorities for water spending. This paper therefore categorized spending into just three categories—supply, quality, and other.

This analysis indicates that spending for supply programs has been declining in real value and as a percentage of the total water budget and that trend is likely to continue. (Figure 4) Spending for supply programs now is about 50 percent of what it was in the early 1960's. By 2002, supply will be less

than 10 percent of the water budget, compared to 25 percent in the early 1960's. Most of the supply spending is accounted for by the Bureau of Reclamation.

Spending for programs related to water quality has grown dramatically since the early 1960's. In real dollars, it peaked in the early 1980's, and has been declining ever since, but it still accounts for almost 50 percent of the water budget. Most of the spending for water quality is from the EPA and the Department of Agriculture.

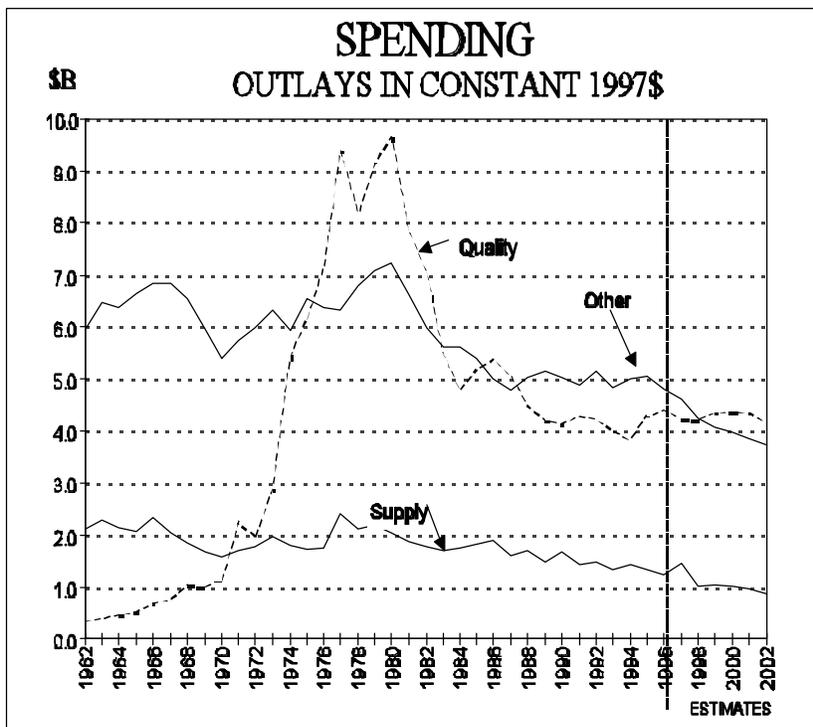
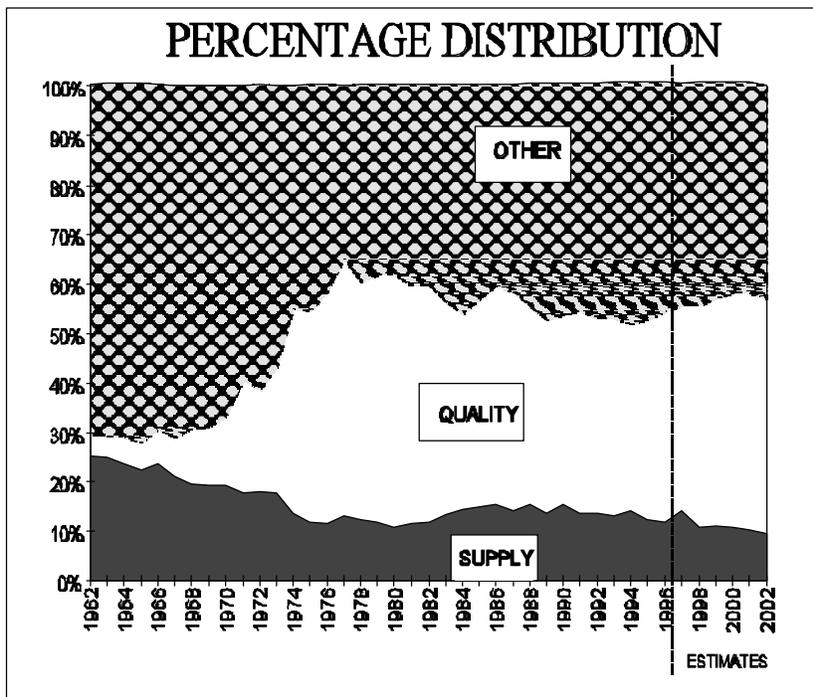
The "other" category includes flood control, recreation, energy production, and projects not readily identifiable as either "supply" or "quality." Spending by the Corps is in this category.

Although alternative assumptions could change the values of each type of spending, the trends are not likely to be affected. For example, counting a portion of the BOR's programs as "quality" rather than "supply" would not change the trend of declining total spending for supply programs. Counting all Corps' programs as "supply" rather than "other" would still result in the "supply" portion of the water budget declining by more than 50 percent between 1962 and 2002.

Spending in the Western States

The Congress appropriates funds by project for the Corps and the BOR. EPA allocations by states are reported in budget documents issued by the Office of Management and Budget. Review of the appropriation and OMB reports for 1997 indicates that more than \$2.5 billion was obligated on water programs in the 19 western states by the Corps, the BOR, and the EPA. (Table 8) This includes only the direct appropriations; it does not include reimbursements. This was 34 percent of the direct water spending by those agencies (27 percent of Corps funds, 100 percent of BOR funds, and 24 percent of EPA funds.)

In 13 of the western states, the Corps had more funding than the BOR, and in 16 states the EPA had more funding than the BOR.



SOURCE: EOP ESTIMATES

Figure 4.—Estimated distribution of water fund among supply, quality, and other.

Table 8.—1997 discretionary funding by state
Budget authority (millions of dollars)

	Corps of Engineers	Bureau of Reclamation	Environmental Protection Agency	Total
Alaska	19		56	75
Arizona	10	81	31	121
California	225	112	192	529
Colorado	5	16	25	46
Hawaii	5		26	31
Idaho	14	1	24	39
Kansas	27	0	24	51
Montana	12	1	23	35
Nebraska	13	1	20	34
Nevada	13	4	21	38
New Mexico	14	5	19	38
North Dakota	18	23	19	61
Oklahoma	51	2	27	80
Oregon	118	13	31	162
South Dakota	26	44	19	88
Texas	189	26	114	328
Utah	4	27	18	50
Washington	179	8	67	255
Wyoming	1	1	21	24
Undistributed subtotal:		¹ 409		409
Western States	944	774	778	2,495
percent of total	27%	100%	24%	34%
Other States and territories	2,248		1,764	4,012
Undistributed	<u>267</u>		<u>659</u>	<u>926</u>
Total	3,458	774	3,201	7,433

¹ These funds were not allocated in the appropriations act to projects in specific states. They include Operations and Maintenance (\$268 million), General Administrative expenses (\$46 million), miscellaneous construction and dam safety (\$117 million), science (\$7 million), and unallocated construction reductions (-\$29 million).

Sources: 1997 Conference Report for Energy and Water Appropriations (House Report 104-782) and "Budget Information for States, Budget of the United States Government, Fiscal Year 1998" (OMB).

Spending for Construction

Direct spending, in real 1997 dollars, for construction programs have been dropping significantly. Since 1974, EPA grants have dominated the construction funds in the Federal budget. As a percentage of their total budgets, construction in the Corps and the BOR has dropped from over 80 percent in the mid-1960's and to just about 40 percent currently. There is no reason to believe that trend will change as resource levels decline. In constant 1997 dollars, construction outlays declined from a level of more than \$14 billion in 1977 to just over \$4 billion in 1998 (Figure 5). During that time, Corps outlays for direct construction in real dollars declined by about two-thirds and BOR outlays by about three-quarters. Year-by-year details are in Appendix B.

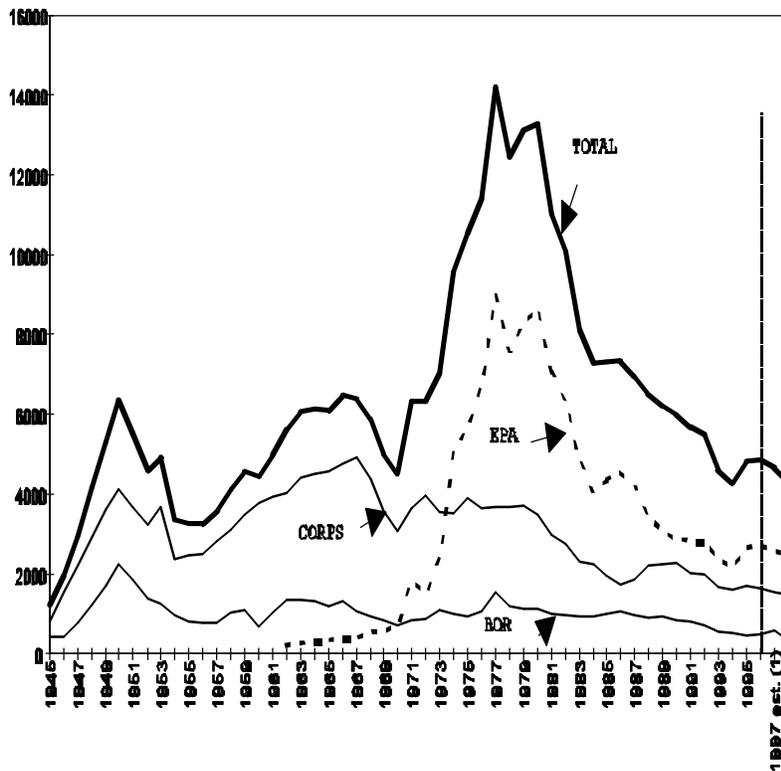


Figure 5.—Corps of Engineers, Bureau of Reclamation construction and Environmental Protection Agency construction grants
(Outlays in 1997 dollars—\$ millions).

Source: Historical Tables, Budget of the United States Government, Fiscal Year 1998, OMB

Analysis of Individual Water Resource Programs, Trends, and Policy Issues

In Figure 3, the agencies overall budgets are displayed by function, revealing the overall trends in budget availability since the 1960's, especially the more recent declines in budgets since the late 1980's. These overall trends can be best explained by a detailed look at each of the major bureaus or programs. Many of the individual programs have experienced dramatic shifts in funding at critical junctures in their life cycle. Moreover, many programs are vastly different in function and purpose than their original authorized mission. Yet, on the surface, they continue to be carried in the same general governmental function. In this sense, the trends identified in the previous section of this analysis can be (and are) a bit deceiving, often understating or overstating the real and often significant program changes that have occurred over the past decade.

Water Quality Programs

Environmental Protection Agency

No more dramatic change in both program content and program delivery has taken place than the EPA waste treatment grant program. In 1972, with the initial passage of the Federal Water Pollution Control Act (FWPCA), the newly created EPA took over a \$60-80 million per year sewage treatment program administered by the Department of Interior. Based on a year long national "needs survey", the Administration and the Congress agreed that a one time infusion of \$18 billion in Federal funds, was required to bring the nation's sewage treatment systems up to newly established treatment standards in the Act. The funds were to be allocated based on a complicated formula to States, which, in turn, had to provide a 25 percent match of Federal funds. The eligible uses of funds were strictly limited to actual pollution control activities, i.e., the construction of sewage treatment plants. Today, after approximately \$100 billion in appropriations and over \$66 billion actually spent, the current year and estimated future construction needs over the next five years are almost as high as the original \$18 billion estimate.

After nearly 25 years of operation, the program has gone through distinct phases of operation. Throughout the 1974-1987 period, including two

Table 9.—Expenditures on water treatment
(\$ in billions)

1962-1966	0.3
1967-1971	1.0
1972-1976	7.0
1977-1981	18.7
1982-1986	15.4
1987-1991	12.5
1992-1996	11.5
1997-2002	13.8

reauthorizations, the program required a formula driven 75/25 Federal match, with extensive EPA oversight, and was funded project-by-project from an EPA approved state priority list. By the late 1980's, the program had largely met its original mission albeit at a cost several times the original estimate. Over 90 percent of the nations population and over 90 percent of the wastewater flows nationwide had newly constructed treatment that met the EPA standards.

After 1987, therefore, the program rapidly evolved to a general grant to State Revolving Funds, for use on treatment or treatment-related projects and programs, including water supply, non-point source pollution and a variety of State priorities over which EPA had no long-term oversight responsibilities. As eligibilities have expanded, so have future “needs” of the program, which are now estimated to be in excess of \$100 billion. Further revolving funds are now used by the States to provide general water-related infrastructure loans to most cities and towns across the United States rather than grants.

The new delivery system (Revolving Funds) combined with an expanded set of eligibilities implies that these programs can be expected to dominate the natural resources function for many years to come. This program alone is more than 50 percent of the total Federal water resources budget (301) of all agencies combined and exceeds all other programs in the function except the combined conservation reserve programs in Agriculture, discussed below.

More importantly, with high estimated future needs, EPA's grant program can be expected to dominate the Federal funding landscape for several more years, reducing or eliminating the potential for increases in other natural

resource (300) programs. However, since eligibilities are continually expanding and Federal oversight continues to diminish over State Revolving Funds, States may well begin to look at and potentially use this program to help meet an increasing demand for high quality water.

A complete year-by-year breakdown of all EPA water programs is in Attachment A. However, only the newly authorized Water Supply Grant program, which has yet to begin operation (and is not included in this analysis) has the potential to add significant funding to State and local governments to meet future water quality needs. The other programs are either regulatory in nature or pay for EPA research and administration.

Department of Agriculture—Rural Utilities Service

A second growing water quality program has emerged in USDA's Rural Utilities Services (RUS), which until recently was called the Farmers Home Administration. The Rural Electrification Administration, which is a major part of RUS has a history not unlike EPA's Wastetreatment Grant Program.

Originally formed to provide Federal assistance to rural cooperatives in their efforts to distribute electricity to individual farms, over time the REA has been able to expand the eligibilities for the use of its grant and subsidized loans to include electric generation units, telephone distribution, and most recently, water and waste treatment. And as with all other REA programs, the newly formed Rural Community Development program is dedicated to infrastructure development, most of which (80%) is related to water supply and quality. Over \$900 million is anticipated annually, with over \$700 million in direct lending to rural communities, local governments, and non-profit organizations for the development of storage, treatment, purification or distribution of water, or the collection, treatment, and disposal of wastes. Over \$3 billion in loans have been made since the program began in 1996 and RUS expects to make over \$400 million in grants in each of the next five years.

While the RUS program is difficult to sort between water supply and water quality since both functions are eligible for funding. Its distribution systems are intended to eliminate individual septic tank systems in favor of combined

Table 10.—Rural water/waste program
(\$ in millions)

	1996	1997	1998	1999	2000	2001	2002
Direct loans	608	745	734	750	750	760	760
Grants	175	104	459	424	435	465	465
Total Federal Liability (cumulative)	1,300	1,758	2,610	3,258	N.A.	N.A.	N.A.

centralized treatment. Hence for the next few years at least, most of the funding will be weighted toward the goal of improving water quality. Therefore, it is included in this functional breakout.

If the RUS program continues to grow at recent rates, this program, in combination with EPA's wastetreatment grant program—targeted to urban areas—will dominate not only the Federal water quality budget but the entire Natural Resources function (300). Yet, with flexible and expanding eligibilities rural, State, and/or counties throughout the west should also see greater opportunities to meet their needs for an ample supply of high quality water in the RUS program.

Further, since virtually all RUS direct lending and guaranteed loans are at subsidized rates (averaging 9.02% valued at over \$100 million per year), the features of the RUS program may, in fact, be more attractive to rural areas in the West than many of the more traditional water delivery programs in other departments.

Department of Agriculture—Natural Resource Conservation Service (NRCS)

The NRCS (formerly the Soil Conservation Service) administrators a multifaceted Environmental Quality Incentive Program (EQUIP). Four programs directly impact on improving water quality— the Water Bank program, the Colorado River Salinity program, the Wetlands Reserve Program (WRP), and the Conservation Reserve Program (CRP). Although the Water Bank program was authorized in 1970 and the Colorado Salinity Program was authorized in the Colorado Salinity Control Act, the others are new programs authorized in the 1985 and the 1990 Farm Bills. The 1996

Farm Bill consolidated all of the programs into a single EQUIP, which is now funded out of the Commodity Credit Corporation rather than by direct appropriations.¹

Farmers are paid to remove highly erodible lands or acreage that meet other environmental sensitivity indicators such as wetlands, riparian zones or critical habitat (migratory flyways). Lands meeting these criteria can be offered for inclusion in the WRP or CRP, for which direct Federal rental payments will be made for between 10 and 30 years. Lands must be removed for all but conservation or environmentally enhancing uses such as grasses and trees. Farmers receive a guaranteed payment equal to the value of the production of the commercial crop on the land submitted for inclusion in the program.

It is generally agreed that most of the EQUIP programs contribute significantly to improved water quality. In fact, in the past two years, the NRCS has increased the priority of water quality enhancing acres for inclusion in the program. The CRP has a current enrollment of 37 million acres and the WRP a million acres nationwide for annual Federal rental payments of over \$2.5 billion. But because of the multiple purposes of the program, it was not feasible to develop a realistic water quality component of these annual funding levels.

The one exception could be a subprogram within the CRP with direct water quality goals. The CRP has a special riparian buffer program—a goal of enrolling 6 million acres of commercial farm land that currently is too close to river banks. At a rough estimate of \$125 per acre for rent, the CRP is now estimated to spend \$750 million per year to directly improve instream water quality.

Other Agency Programs

Beyond these two major programs administered by the EPA and the USDA, the remaining water quality programs, which are very small in comparison, cover a wide variety of regulatory or highly targeted agency-specific purposes. Most are concentrated in USDA conservation-type programs.

¹ The CCC program is a mandatory program, which is not subject to annual funding decisions with the Executive Branch or the Congress. Eligible recipients receive payments directly from the U.S. Treasury, once acreage has been accepted into the program.

Table 11.—Other agency programs
(\$ in millions)

Program	1990- 1996	1997	1998	1999	2000	2001	2002
Water Resource Asst.	126	13	68	75	76	76	76
Cooperatives with States to reduce damage from floods, sediment, agricultural run-off, erosion, and the conservation, development, utilization and disposal of water. Increase in 1998-2002 is for water quality and wetland restoration.							
Colorado River Basin	71	75	79	81	79	75	75
Funding on a cost share basis for landowners in Arizona, California, Colorado, Nevada, New Mexico, Utah, and Wyoming to enhance the quality of water (reduce salt) in Colorado River for delivery to downstream U.S. users and Mexico. Funding after 1998 is made under CCC's EQUIP program, but should remain stable at \$75 million per year.							
Rural Clean Water	0	3	3	3	3	3	3
An experimental program to test methods of controlling agricultural non-point source run-off in rural areas.							

A complete listing of water quality programs can be found in the database Appendix which provides a complete history of annual expenditures from 1962 to 2002. These include River Basin Commissions, and special agencies established by Congressional charter. Most received funding until the mid-1980's, but have lost Federal funding since that period.

Summary

Figure 4 shows total Federal expenditures on water quality since 1962. When the peaks are removed that reflect single year spikes in spending, the water quality portion of total spending on water programs has been steadily rising throughout the entire period. Yet, the major programs have been remarkably flexible, adjusting and expanding eligibilities for funding and streamlining the delivery of funds to States and local governments and even including private non-profit cooperatives. Should this trend continue and be

accelerated with the initiation of EPA's new drinking water purification grant program, rural States must look to these programs to help meet future funding needs.

Water Supply Programs

Federal involvement in the discovery, collection, and transmission of water for agriculture, irrigation, domestic consumption and industrial processing has fallen largely on three departments—The Army Corps of Engineers, the Bureau of Reclamation, and the Department of Agriculture. Funding has occurred in a variety of forms ranging from direct Federal construction of projects, to projects that are jointly funded (cost-shared) with the beneficiaries, which are often non-federal public entities, and also include the direct pass through of appropriated funds to States and Federal tribes.

Each funding mechanism met different purposes and was popular in different periods of the federal budget. But as clearly shown in the first chapter, the peak funding levels for all the programs has already occurred and the future funding trend is steeply downward.

The Corps and Bureau of Reclamation for many years had what appeared to be comparable missions and similar programs—principally the construction of dams and reservoirs to capture water. Often these construction efforts had the multiple purpose of water supply and flood protection. But underneath these appearances of similarities there were deep seeded differences in purpose, mission, and use.

Bureau of Reclamation

The BOR's early principal mission was to supply water for agricultural uses. It is still its top statutory criteria for eligible uses of BOR delivered water. Agricultural interests held and still do hold the right of first use of BOR project waters. The BOR was also strictly limited to projects in the 17 western states, since agriculture in the Midwest and eastern US was dry land farming that did not need water to be carried long distances. Of secondary interest in the BOR's earlier years were municipal and industrial uses, which had a lesser claim on BOR waters. Over time, as population in the western states grew and agricultural use of BOR waters leveled off, pressure to collect and deliver municipal water supplies to growing cities

generated an entire new phase of BOR projects. The BOR has funded projects through the use of grants, loans and direct federal construction. The lending programs were principally to local water supply jurisdictions, which manage the water allocation system, charge user fees, and then repay the BOR. The loan program is usually at significantly subsidized rates with very long amortization periods to reduce repayment costs. In addition, the start of the repayment period was often years after the local jurisdiction began using BOR waters because the repayment clock did not start until the entire project had been fully completed.

For much of the period from 1962 to 1990 the BOR's budget was remarkably stable although the projects being funded changed over time. Total direct appropriation funding peaked in 1988-1990 at about \$1 billion per year. From that point on the number of new projects being funded dropped dramatically and the mission of the BOR began to shift from project development to maintenance, rehabilitation and environmental restoration.

Table 12.—Bureau of Reclamation
(\$ in millions)

1962-1990	1991	1992	1993	1994	1995	1996
16,283	884	884	865	862	772	769

The BOR historical budget, however, is deceiving in both its volatility and its actual size. Until the Budget Enforcement Act of 1990, agencies like the BOR were authorized to make loans. These loans were not recorded as agency spending since it was assumed that the loans would be repaid and the effect on the Federal Treasury's balance neutral (except for loan subsidies which were not recorded.) Further, lending accounts did not show in the BOR Appropriations since loans are always issued by the Federal Financing Bank (FFB) within the Treasury Department. Hence, the BOR had extensive authority to issue loans to non-Federal water districts but the loans were not included in the budget data shown above.

Table 13.—Bureau of Reclamation loan authority
(\$ in millions)

1962-1990	1991	1992	1993	1994	1995	1996
N.A.	3	3	6	10	16	27

The real size of the BOR can be best seen when the value of the loans it issued is added to its direct appropriations. It also helps visualize the dramatic change in BOR mission that began occurring in the early 1990's. The drop off in new projects entering the BOR funding pipeline is reflected in the growing loan levels for new projects rather than in the appropriated budget which includes continuing operation and maintenance programs as well.

The change in the BOR's mission occurred as result of a number of policies converging at once. Principal among them were the issuance and subsequent reliance on the National Water Resource Commission's criteria. The implementation of cost benefit criteria for new projects placed a greater burden on both the BOR and prospective beneficiaries to justify project construction. Changing policies to emphasize water quality in existing rivers and tributaries added a greater burden on projects that would reduce instream flows and divert water to other uses. A leveling off of agriculture production, and the depression in agriculture prices in the mid-1980's, along with growth in both world and domestic production made agriculture related projects more difficult to justify. In addition, the general overall downward trend in discretionary spending forced a re-thinking of the relative role of the Federal government in subsidizing or contributing to the development of water resources for rapidly growing cities and towns in the western states. In sum, BOR-type projects were considered a lower priority and many were alleged to cause significant environmental damage.

By the mid 1990's the transformation of the BOR was completed. The BOR was downsized significantly and its focus was shifted from project development to environmental mitigation, operation and maintenance of its dams and electric generating capacity placed in those dams, rehabilitation, and the completion of projects in the pipeline. New project authority has virtually disappeared.

Department of Agriculture — Natural Resource Conservation Service

The Department of Agriculture's Natural Resource Conservation Service (formally the Soil Conservation Service) has operated a relatively small but significant water supply program. The NRCS program provides for a cooperative effort between Federal, States and localities to reduce damage from floodwater, sediment and erosion in order to enhance development, utilization and subsequent disposal of waters. In this program, often

referred to as the “small watershed protection program,” emphasis has always been on water quality and wetlands protection as long as that protection is essential to farming. The Federal Government participates directly in the construction of the projects and recent emphasis has been on meeting Clean Water Act requirements. The program has both a grant and a non-grant component and both have been funded each year. However, with the exception of a brief period in the mid-1970's, the grant portion has always been the dominant funding mechanism.

Table 14.—Natural Resources Conservation Service watershed projects funding
(\$ in millions)

	1962-1990	1991-1996	1997	1998	1999	2000
Grants	2,769	845		70	45	40
Non-grants	1,640	347	31	0	0	0

The main focus of the program has been the development of watershed projects with benefits that range from flood prevention to agricultural water management. The program has undergone some dramatic reforms in 1997 to ensure that projects were also environmentally beneficial as well as economically beneficial. The funding is diverse and usually the projects are relatively small especially compared to BOR or Corps of Engineers projects.

Table 15.—Status of USDA watershed projects

	1996	1997	1998
Under construction	532	523	509
Post installation assistance	893	915	930
Completed projects	27	28	30
Inactive projects	152	152	152

The Clinton Administration has proposed that both the grant and non-grant programs be phased out, for many of the same reasons that the BOR project-related work load has been diminished or eliminated.

Few, if any, of the projects can survive the cost benefit criteria set in water supply and development policy. Hence, few new projects are expected. Furthermore, as with the BOR program, the focus of the program has been shifted from water development to more environmentally beneficial projects such as flood protection and wetlands protection. And, finally, it is clear that the Executive Branch has set any Federal funding of projects that are designed to benefit a highly targeted or localized interest as a low priority relative to water quality, and as shown in the next section, relative to recreation, flood control and most other water resource activities. Hence, no new construction type projects are expected to be placed in the pipeline, except those added by Congress on a case-by-case basis.

Bureau of Indian Affairs

The one exception to the above generalization is the water supply project construction program for Federal tribes. This program, which is funded by the Department of Interior's Bureau of Indian Affairs, has shown a reasonably steady growth since the 1960's. This growth has been the result of two separate policy decisions concerning the construction of water irrigation projects and payments for water rights held by tribes in treaties with the U.S. Government.

Table 16.—Bureau of Indian Affairs
Outlays (\$ in millions)

	1996	1997	1998	1999
Resource management construction	47	44	38	32
Water right settlements	70	61	54	53
Total	114	127	112	120

The inclusion of water right settlement costs in this analysis may appear to be overreaching, at first, because no actual construction of water development or irrigation delivery systems occur on tribal lands as they do under the resource management program. Furthermore, there are no federal water rights and the Federal Government does not actually purchase water rights from either tribes or individuals. But, the inclusion of BIA's water rights settlements program is important for two reasons.

First, Federal expenditures occur to reimburse tribes for the use of their water rights by non-tribal entities and individuals. If the tribes were to actually demand their water allotments then there would be less water available for all other purposes in the State. The “payment” to tribes to in essence not claim their allotment in every sense is the equivalent of purchasing the water itself.

Although the Federal government has no legal stake in State water right claims, the Federal payment (as opposed to State) to tribes was a second major policy decision. The Federal government has decided to make the payments acting in its trustee responsibility on behalf of the tribes. Those settlements involving a federal payment preclude the need for tribes to pursue legal relief in State courts that could easily take a decade or more to accomplish.

Second, the importance (and costs) of settlements is rising, largely because there is a growing number of tribal claims. There are currently 26 active tribal claims receiving Federal funding with each claim averaging over \$200 million. Most analysts believe that there are more than 50 additional settlements that could be filed and negotiated. The implications are that the greater the number of potential claims, the greater the threat to the current distribution of water rights and the less funding there will be available to increase water supply through new project starts.

Other Water Programs

Federal support for water programs is certainly not limited to water quality and water supply, development and distribution. In fact, the majority of Federal programs associated with water are devoted to one or more of several other functions, ranging from conservation, to flood control, and to electricity production. Unfortunately, it is difficult to separate these functions into discreet programs. Most serve multiple purposes.

Energy Production

The Power Marketing Authorities, ranging from TVA to the Bonneville Power Administration have significant federal investments in the production and distribution of electricity through hydropower. The discussion below will focus on the role and funding of those PMA's located in the Western States.

The Alaska Power Administration is responsible for operation and maintenance of power marketing the Eklutna and Snettisham hydroelectric projects. This PMA is scheduled for termination and privatization over the next two years based on Public Law 104-58.

The Southeastern Power Marketing Authority markets power generated by the Corps of Engineers in an eleven State area in the Southeast, but owns no transmission facilities, dams or other types of water storage facilities. The Southwestern Power Marketing Authority has funding for water reserve project planning and the scheduling of water discharges in a six State western region.

The main Federal program is the Western Area Power Administration, which markets power in the 15 Western States from power plants that were constructed and operated (and owned) by the Bureau of Reclamation, the Corps of Engineers and the International Boundary and Water Commission. The Authority is also responsible for contributing \$5.5 million annually into a special fund to mitigate environmental damage that results from the BOR's Colorado River Storage Project in Utah.

The Bonneville Power Marketing Authority is a Federal electric power marketing agency in the Pacific Northwest. BPA markets power from 21 multipurpose water resource projects that are owned and operated by the Corps of Engineers and another 9 projects owned and operated by the Bureau of Reclamation. While the majority of BPA's activities are direct investments in electric distribution, approximately \$12-15 million each year is devoted to protecting fish habitat and providing for fish migration that is impacted by hydroelectric facilities, especially on the Columbia River and its tributaries. In addition, major Federal funds are being provided annually to the Colorado River Basins Power Marketing Fund of the Western Area Power Administration.

The majority of Federal funds are for the direct operation and maintenance of the Colorado River Basin Project which include Western's expenses associated with the Central Arizona Project operated by the BOR. Other projects include the Fort Peck project operated by the Corps of Engineers, the Seedskaadee project (a part of the Fontennelle Dam), and the Dolores project (part of the McPhee Dam in Southwestern Colorado formerly operated by the BOR, until 1994.)

Table 17.—Summary of power marketing administration spending
(\$ in millions)

	1980- 1990	1991- 1995	1996	1997	1998	1999	2000
Total funding	2,155	1,764	329	269	232	240	237
Water-related funding	216	176	33	37	23	24	24

A complete listing of each PMA's funding history is located in Appendix A. However, the PMA system has not been and cannot be expected to be a significant source of new water supply and distribution. There are few if any new major projects in the pipeline and its power marketing and distribution requirements rely entirely on an infrastructure that is owned and operated by the Corps of Engineers and Bureau of Reclamation.

Flood Protection

More than any other water resource agency, the Corps of Engineers constructs truly multipurpose projects. The same project may serve as flood control, electricity production, water supply, and recreation. Therefore, it is difficult to sort out precisely how much is spent on each of those functions. As noted above, over 50% of the electricity provided to cooperatives and other utilities in the Western States originates at Corps of Engineers water storage and hydroelectric facilities. The estimates provided here are based on the original intent of the projects' initial studies, or general investigations. Therefore, the estimates do not include all of the Corps' coastal programs or Harbor Maintenance/Dredging programs, and in land river dredging. It also is limited to the 1996-2000 period, i.e., essentially what the Corps is doing now and intends to be doing over the next few years. It is possible to construct a complete history of funding but would require a project-by-project review and would not add measurably to a discussion of the potential for future COE projects to add to future water supplies.

At a minimum, the corps is spending over \$1.1 billion each year in flood protection alone, which is more than what the Bureau of Reclamation spends on all its water supply and operation and maintenance programs. In addition, the Corps spends between \$100 and \$130 million each year in multipurpose power projects, some part of which are also flood protection.

Table 18.—Corps of Engineer spending on flood control
(\$ in millions)

	1996	1997	1998	1999	2000
General investigations	7	7	7	7	7
Construction	452	561	582	580	580
Operation and maintenance	346	327	313	300	300
Mississippi River ¹	325	288	277	266	267
Flood Control and Rehabilitation	<u>80</u>	<u>156</u>	<u>12</u>	<u>14</u>	<u>14</u>
Total	1,210	1,339	1,191	1,167	1,168

¹ Total remaining federal costs for this program are \$3.76 billion.

The future of flood control projects in the West may have a direct bearing on the potential for additional water supplies in the Western States. To the extent that dams or other water storage facilities are constructed as part of flood control projects, the water resources captured would be above the baseline water rights allocation and could be used subsequently to meet rising demands.

However, there is, today, no systematic linkage between future flood control and future storage of surplus waters. This is largely because the vast majority of flood control projects are initiated and specifically authorized by Congress, usually to solve a local or regional flood-related problem. Of the \$561 million appropriated in 1997, \$505 million was applied to specific projects authorized by Congress. A program that linked even individual projects to a broader network of potential users of stored waters would be needed to realize that potential.

Recreation

Finally, the Federal government spends significant amounts for water related recreation activities and a variety of conservation programs that contribute directly to the nation's recreation benefits. The major agencies include USDA's Forest Service, DOI's Fish and Wildlife Service and National Park Service, the Corps of Engineers, and the Bureau of Reclamation. Each fund slight different activities, however.

Table 19.—Summary of funding for recreation
(\$ in millions)

	Activity	1996	1997	1998	1999
Corps of Engineers	Beach Erosion and Shoreline Control	60	71	73	75
Fish and Wildlife Service	Fish Restoration Public Recreation	210	243	246	250
National Park Service	Public Recreation ¹	1,133	1,155	1,246	1,245
Bureau of Reclamation	Public Recreation	N/A	N/A	N/A	N/A
Forest Service	Habitat Protection ² Public Recreation	N/A	N/A	N/A	N/A

¹ Does not include urban park recreation programs.

² Forest receives \$48 million per year in recreation user fees.

The demand for access to federally owned and operated facilities for the purpose of recreation is increasing inexorably and the Federal Government (both Congress and the Executive Branch) have greatly increased the priority associated with the public' access to public lands. Water resource development within Federal facilities is taking place almost exclusively to meet this demand. In the U.S. Forest Service, the timber production and other commercial uses of the forests that have historically been the dominant priority, with habitat protection second and recreation an incidental function of the use of forests. Today, recreation and environmental habitat enhancement loom as top priorities and the funding of those activities reflect the change in policy and priority.

The significance of this shift in Federal priority or potential water supply development cannot be overstated. Water resources and especially potentially new or additional water resources that reside on Federal lands will be primarily reserved for these higher priorities rather than be made available to commercial uses such as increasing community drinking water supplies. Further, protection of the environment, which requires maintenance of instream flows and temperature must be met before water can be made available for other purposes. Because large areas of the Western States contain Federal lands, this shift in Federal (and public) priorities will severely limit the potential for additional water resources from Federal lands.

Summary Conclusions

A complete listing of all the Federal program and agencies involved in water resources is located at Appendix A. This represents the complete historical data base from which others may wish to extend or vary the analysis above.

The major conclusion that results from this analysis is that environmental standards and conservation, recreation and hydropower are the three principal Federal priorities through the end of the decade. Water supply programs are in decline.

Improving Program and Budget Coordination

With water supply spending headed downward, obtaining maximum value from each budget dollar will require careful coordination of the various Federal water programs.

Recent efforts to date to improve the coordination of water projects have been focused on selected high profile projects. These include the Everglades, Columbia River Basin Fish and Wildlife, and the Bay/Delta restoration projects. Although improved coordination was the end objective, each project used different coordination procedures.

- *Everglades project* (South Florida Ecosystem Restoration Initiative). Seven Federal departments and agencies and seven Florida state agencies have participated in preparing annual crosscut budgets for this project. The most recent plan covers fiscal year 1998. These documents provide a line-item integrated description of restoration programs and projects proposed for the fiscal year by the Task Force member organizations. The reason cited in the plan for this extensive coordinated effort is as follows: "With the increasing complexity of the makeup of the partnership comes an increasing need to more effectively manage the enormous technical, informational, and financial resources required in the restoration initiative." The Task Force also issued an Integrated Financial Plan, which is a catalog of project descriptions that is scaled to the outyears, whereas the cross-cut budget reflects the planning for the upcoming fiscal year. According to the Cross-Cut Budget for Fiscal Year 1998, these documents, "...meet the mandate of the Water Resources Development Act of 1996, that required the Task Force to 'prepare an integrated

financial plan and recommendations for coordinated budget request for the funds proposed to be expended by agencies and entities represented in the Task Force for the restoration, preservation, and protection of the South Florida ecosystem...'"

- *Columbia River project.* A Memorandum of Agreement was entered into by the major Federal departments and agencies involved in the project. The Memorandum calls for the participants (Federal departments, the Northwest Power Planning Council, and the Indian Tribes of the Columbia River Basin) to, "...develop multi-year workplans for implementation of fish and wildlife measures.." It also requires implementation of, "...coordinated and integrated prioritization processes for all expenditures, using consistent criteria that allow for cost effective choices across all expenditures categories." Using those priorities, annual workplans are to be prepared and made available for public comment before they are adopted.
- *Bay/Delta project.* The Office of Management and Budget was required by The California Bay-Delta Environmental Enhancement and Water Security Act to submit to Congress with the President's 1998 budget an interagency crosscut budget for the project. The plan showed actual funding for fiscal years 1993 through 1996, and estimated funding for 1997 and 1998.

These three programs are high cost, require several years to complete, and involve several agencies. Most water projects, however, are much smaller and do not receive the same level of high-level interest. It therefore would appear to be useful to improve the coordination of these programs as well as for a few, high-visibility projects.

Even with declining resource levels, there will be a demand for new water supply projects to some extent. In fact, the demand for new projects may increase in response to population growth, changing demographics, and clean water requirements. This increases the value of wringing as much output as possible from each Federal budget dollar.

The Administration has made clear its priorities for water-related programs—environment and recreation have risen to the top; other programs have declined. The opportunity that improved coordination may present is one of finding ways to increase the water supply component of recreation, or flood control, or hydro electric projects.

An important first step would be the articulation by the Administration of a policy that explicitly states the priority of water supply in the development of other programs with a water content.

In developing an administration policy, all departments and agencies with water programs and responsibilities should participate. They can each provide valuable input on water-related problems and solutions from the context of their larger departmental objectives. Leadership for the effort should come from the Executive Office of the President. The most likely candidates are the OMB, the CEQ, or a joint OMB/CEQ activity.

This policy could be incorporated in the strategic plans each department and agency will submit to the Congress starting with the fiscal year 1999 budget that will be submitted in February 1998. These plans, required by the Government Performance and Results Act, will clarify departmental missions, priorities, and the expected results from proposed budgets. The departments will also be required to report on the actual results. This should create an incentive for departments to show that they are obtaining maximum value from their appropriations. That, in turn, should result in improved coordination among departments.

The second step in improving the output of the Federal water budget is creation of strengthened coordination at the regional level.

There are several ways that can be achieved, as described in the following paragraphs.

Description and Evaluation of Options to Improve Regional Coordination

Coordination should take place in the regions before budget proposals are submitted to higher headquarters for approval. Results of the coordination would be made available to the Department head before the bureau's budget is approved. A region could be a State, a group of states, a river, a hydro logic basin or some other definition.

Alternative 1. Appoint a neutral, existing government agency, such as OMB in the Executive Office of the President, to be in charge of regional coordination.

Arguments in favor of this alternative:

- OMB is independent of departments and has no stake in the distribution of funds for water programs.
- OMB has a decision-making role and could use its budget leverage to enforce decisions on water programs.
- OMB develops crosscutting budget issues and has access to all programs. Outside the big agencies—Bureau of Reclamation, Corps of Engineers, and EPA—funding for water programs is buried within other programs and not easily discernible.
- OMB already has an extensive role in interagency coordination concerning major programs and legislation.
- No change in law would be required.

Arguments against this alternative:

- OMB must follow and enforce Presidential policy.
- OMB has no field offices and a very limited travel budget.
- Water programs are a small portion of the Federal budget (less than 1 percent). Coordinating a variety of regional projects would be a new time-consuming task that would take away time from the existing big picture budget work of OMB. OMB has a Water and Power Branch that examines the programs of the Bureau of Reclamation and the Corps of Engineers, and coordinates flood control policy. Most of the other water programs are examined in other organizational units.
- Having OMB coordinate water programs could lead to pressures for additional OMB field offices to coordinate other cross-cutting programs.
- OMB would be placed in position of reviewing departmental proposals before they have been reviewed by Departmental officials.

- OMB probably would object to this expansion of its duties.

Alternative 2. Assign a Department to lead the coordination in specific regions, e.g., the department with the biggest programs in a region could be assigned responsibility).

Arguments for this alternative:

- Regional staffs have the greatest expertise available within the government.
- This can be done with no change in law.
- The regions would be able to address local issues in the context of their department's global policies.
- The departments set Administration policy direction on water programs. The agencies with the funds and expertise have a central role in developing options, making policy recommendations, and implementing programs.

Arguments against this alternative:

- The Department selected might not be acceptable to other departments operating in that region. With tight budgets and cutbacks coming, a department may be concerned that the department in charge of coordination might use its position to argue for larger budgets for itself.
- A regional office has no legal mandate to implement programs and cannot contradict the Departmental Secretary's policy.
- The departments lacks vision of the missions of all departments and their water related projects. Departments have specific program objectives and they can be in apparent conflict with the objectives of other departments and agencies. For many of them, their water projects are a way to accomplish a larger objective and not an end result. For example, the Corps may view the urgency and value of an individual project quite differently from the EPA. Further, the departments work with different Congressional

committees and those Committees, which may disagree with the priorities of the department in charge or coordination.

- This could lead to pressures for creation of a new bureaucrat organizations in the regions when the Congressional and Administration objectives are on downsizing government.

Alternative 3. Expand the responsibilities of the Western Water Policy Advisory Commission. This could be established within a Department or continued through law with a Congressional Charter. If established in a Department, the sponsoring Department would be required under administration policy to abolish some other advisory Committee. The Commission could be Congressionally mandated, with members appointed by President, and be required to send reports to both the Congress and the President. The Commission's Charter could emphasize that the mission is to maximize the value of existing water budgets through interagency coordination and not to argue for more funding for water programs in general or funding for a specific department or agency. The Commission's tasking could range from certification that coordination took place (minimalist function) to holding hearings and writing reports on the degree of coordination. The legislation could require the departments to explain when they do not take the advice provided by the Commission, providing department heads and the relevant Congressional committees to ask why the advice was not taken.

Arguments in favor of this alternative:

- A Commission would be composed of nationally recognized experts. They could bring more expertise on a particular issue than would be available in a single department.
- If an arm of Congress, the Commission has a stronger role than if an arm of the Executive Branch.
- This would be another source of information for OMB and the Congress to use when allocating funds to the various water programs and departments.
- A Commission would be independent of the departments with the funds and therefore have no stake in the distribution of funds.

Arguments against this alternative:

- This would require creation of another advisory board and review layer that would be objectionable to the Administration. The Administration would object to creation of yet another Commission to solve Federal issues within the President's control. Over the last 15 years, there have been efforts to reduce the number of advisory commissions, that now number in the hundreds.
- Recommendations even from an independent advisory commission are unlikely to be accepted by departments if they are in conflict with departmental or Presidential policies.
- An advisory commission has no legal mandate to implement recommendations.
- A Commission has no budgetary leverage.

Alternative 4. Strengthened interagency coordination. Regional teams could be led by representatives of each agency with the lead rotating each year among the departments.

Arguments in favor of this alternative:

- This might be most acceptable to most departments.
- This requires no change in law.
- Interagency discussion without decision-making power does not take away from departmental prerogatives, but it gives the department head confidence that efforts have been taken to eliminate duplication.
- Interagency meetings would provide a forum for discussing projects and the potential impacts on other departments.
- This could be a first step toward a more powerful coordinating operation if it fails to produce desired coordination.

Arguments against this alternative:

- This could lead to situation where all agencies support each other's programs.
- Some departments may be hesitant to share all information about a particular project before it has been reviewed and decided at headquarters.

Alternative 5. Establishment of three interstate compacts modeled after the interstate nuclear waste compacts with perhaps a direct Congressional mandate to develop acceptable joint state polices, procedures and long-term water supply development plans.

Arguments in favor of this alternative:

- A seventeen state regional plan is inappropriate. The needs, potential sources, and priority uses are very different in the Pacific Northwest and the Southwest. Therefore a regional approach should be limited to those states that have essentially similar needs and problems to solve.
- Water rights are State rights, not Federal rights and long-term solutions will be largely dependent on future State plans. Even if there is a significant Federal participation or investment, the essential ingredient to developing future sources will be dependent on State water use criteria and population planning.
- Interstate compacts have legal authority and their plans are binding solutions once approved by the States and the Congress.
- Interstate compacts can be Congressionally funded, without Executive Branch interference or budgeting control.
- The current Western Water Rights Advisory Commission Charter is an excellent model to be carried forward to individual Interstate Compacts. Further, the current Commission Report can be the basis for future plans.

- Any solution must also involve the PMA's and the hydroelectric dams operated by the Corps and the BOR. Hence, Interstate Compacts will best fit into the existing power marketing regional structures.

Arguments against this alternative:

- Interstate Compacts will face the same difficulties that all regionally-based planning commissions will face—the needs of individual states to meet multiple water use needs exceeds the availability of water. There must be winners and losers if additional sources are not found or water rights are not reallocated among users.

Interstate Compacts ignore the essential role of the Federal government, which owns and operates the water storage and conveyance systems and which produce the majority of the electricity.

- Interstate Compacts often take years to develop mutually agreeable plans—a time frame that may not be compatible with the current problems.
- Congressional jurisdiction must be carefully defined and assigned. Oversight is critical to success and assignment to one committee is highly desirable.

These alternatives cover a wide range of options. Alternatives 1, 2, and 4 are possible under current law; Alternatives 3 and 5 require authorizing legislation. Alternative 1 (OMB coordination) is not recommended because it would add a new layer of workload to OMB and it is likely to be opposed by OMB. Alternative 2 (Department-led coordination) may be unacceptable to the other departments. Alternative 3 (Commission) probably will be opposed by the Administration as an intrusion into the President's and Executive Branch prerogatives. Alternative 4 (Regional interagency groups) is an easy step to take, and may be the alternative most acceptable to all Federal Departments as a next step. Alternative 5 (Interstate Compacts) may be the most time-saving, but it may also be the alternative most likely to produce long-term coordination of all water programs at all levels of government—Federal, State and local.

Appendix A

Appendix A

Appendix A is a data base listing the outlays for all discretionary appropriations with water-related spending during the years 1962 through 2002. The raw data was obtained from backup information provided by the Office of Management and Budget with the President's budget for 1998. This data was used to estimate the portion of discretionary spending for water-related projects.

Explanation of columns:

Column	Item
A	Department
B	Bureau
C	Account number for the appropriation
D	Title of the appropriation
E	Budget function
F	Categorization of spending among Supply (s), Quality (q), and Other (O)
G	Estimated portion of appropriation that is used for water-related projects
H	Identifies whether spending was for Grants (G) or Non-Grants (NG)