



---

# **Grants and Loans for Water Supply and Wastewater Treatment Facilities:**

## **Interim Report**

### **Water Conservation Provisions**

GRANTS AND LOANS FOR WATER SUPPLY AND

WASTEWATER TREATMENT FACILITIES:

WATER CONSERVATION PROVISIONS

Interim Report of Water Policy Implementation

Task Force 11

November 27, 1978

NOTE: This is an interim report of an interagency Federal work group composed of staff representatives of the Environmental Protection Agency and the Departments of Agriculture, Commerce, and Housing and Urban Development. No inference should be drawn that this report represents any final water policy implementation decisions of any of the affected agencies or Departments.

## I. INTRODUCTION

On July 12, 1978, the President issued a memorandum to the Administrator of the Environmental Protection Agency (EPA), and the Secretaries of the Departments of Agriculture (DOA), Commerce (DOC), and Housing and Urban Development (HUD), directing them to:

review those programs of your agency that provide loans and grants for municipal water supply and wastewater treatment systems, and modify those programs to remove any disincentives to water conservation and to require appropriate community water conservation programs as a condition of such loans and grants. These water conservation modifications are to apply to all loans and grants awarded after September 30, 1979.

The President's Directive is reproduced on the following page. In brief, this Directive represents part of the implementation phase of the President's Water Policy Message to Congress, issued on June 6, 1978. That message identified four major areas of National water policy which are to receive increased attention from agencies and Departments within the Executive Branch of the Federal government:

- Enhancing Federal-State cooperation;
- Making the water project planning process more efficient;
- Providing a new national emphasis on water conservation and;
- Increasing environmental sensitivity in water resources planning and management.

The President assigned the task of seeing that these water policy "initiatives" were fully and promptly implemented to the

THE WHITE HOUSE

WASHINGTON

July 12, 1978

MEMORANDUM FOR

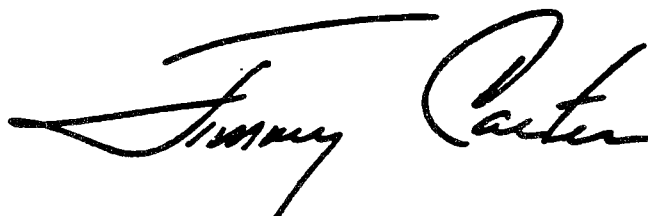
THE ADMINISTRATOR OF THE ENVIRONMENTAL  
PROTECTION AGENCY  
THE SECRETARY OF AGRICULTURE  
THE SECRETARY OF COMMERCE  
THE SECRETARY OF HOUSING AND URBAN DEVELOPMENT

SUBJECT: Water Conservation Provisions in Loan and Grant  
Programs for Water Supply and Treatment

As noted in my Water Resources Policy Reform Message of June 6, 1978, using water more efficiently is often cheaper and less damaging to the environment than developing additional supplies and treatment facilities. Federal agencies providing financial assistance for municipal water supply and wastewater treatment systems can play an important role in advancing the goal of efficient use and conservation of water. I am therefore directing you to:

review those programs of your agency that provide loans and grants for municipal water supply and wastewater treatment systems, and modify those programs to remove any disincentives to water conservation and to require appropriate community water conservation programs as a condition of such loans and grants. These water conservation modifications are to apply to all loans and grants awarded after September 30, 1979.

The Administrator of the Environmental Protection Agency is assigned lead responsibility to organize and coordinate this review. A report on proposed program modifications shall be submitted by October 30, 1978, to the Secretary of the Interior who, with the assistance of the Office of Management and Budget and the Council on Environmental Quality, shall ensure implementation of this directive.

A handwritten signature in black ink, reading "Jimmy Carter". The signature is fluid and cursive, with the first name "Jimmy" and the last name "Carter" clearly legible.

Secretary of the Interior. In turn, the Interior Department established nineteen separate task forces, each including representatives of the appropriate agencies and Departments, to assist the Secretary in overseeing the implementation of the water policy directives. Six of these task forces are considering various aspects of the water policy message which relate to water conservation. This is the interim report of Task Force No. 11, which is responsible for assisting EPA, Agriculture, Commerce, and HUD in the integration of the President's water conservation initiatives into existing programs which provide financial assistance to communities for planning and constructing facilities for water supply and wastewater treatment.

A. Affected Programs and Task Force Participants

The President's Directive charged the Administrator of the Environmental Protection Agency with the responsibility of coordinating the review of appropriate programs of EPA, HUD, Commerce, and Agriculture, and reporting to the Secretary of the Interior on the results of program modifications which would encourage water conservation in grant and loan programs for water supply and wastewater treatment. Staff assistance for this effort was provided through EPA's Office of Water and Waste Management. The Departments of Agriculture, Commerce, and Housing and Urban Development were initially contacted and asked to name a representative to the Task Force, and to identify those programs

within their Departments which were affected by the Directive from the President. In addition, EPA identified its programs which were similarly affected:

<u>Department/Agency</u>	<u>Name of Affected Programs</u>
Agriculture	
Farmers Home Administration ----	Water and Waste Disposal Systems for Rural Communities
Commerce	
Economic Development	
Administration -----	Supplemental and Basic Grants to States Special Economic Development and Adjustment Assistance Public Works and Development Facilities Public Works Impact Program
National Oceanic and	
Atmospheric Administration ---	State Coastal Management Program State Coastal Energy Impact Program

<u>Department/Agency</u>	<u>Name of Affected Programs</u>
Environmental Protection	
Agency -----	Construction Grants for Wastewater Treatment Works State and Areawide Waste Treatment Management State Pollution Control Program Grants Clean Lakes Program State Water Systems Super- vision Program Underground Injection Con- trol Program Water Pollution Control Regulation (NPDES and 404 Permits)
Housing and Urban	
Development -----	Research and Development Program Community Development Block Grants

<u>Department/Agency</u>	<u>Name of Affected Programs</u>
Housing and Urban Development	
(continued) -----	Small Cities Program
	Urban Development Action
	Grants
	Comprehensive Planning
	Assistance Program

Representatives named to the Task Force include:

Department of Agriculture

Farmers Home Administration..... Byron E. Ross

Department of Commerce

Economic Development Administration ..... Paul H. Smith

Environmental Protection Agency ..... J. Stevens Lanich  
( Chairman)

Peter R. Perez

Department of Housing and Urban Development .... Don Patch

B. Role of the Task Force

Task Force members were in agreement that the Task Force's  
responsibility was not to implement the President's Directive,



but rather to assist each agency in the review of affected programs, and the development and analysis of options which would be considered for implementation. Final decisions would naturally be the responsibility of the agency heads. Based on the work of the Task Force, agency representatives will recommend to their superiors specific program modifications which would encourage water conservation. The final report of this Task Force will reflect the decisions of the agencies affected by the President's directive.

C. Contents of this Report and Schedule for Final Report

This is an interim report, and represents a preliminary compilation of ideas -- options -- for modifying the administration of Federal programs which provide financial assistance for the construction of water supply and waste-water treatment facilities and (in the case of EPA) related programs for water quality planning and water pollution regulations. This interim report does not make recommendations to the affected agencies, and reaches no conclusions regarding which options would be most effective in encouraging community water conservation. It is essentially a "shopping list" of ideas which will be considered and analyzed by the Task Force and the affected agencies over the next several months. The Task Force itself is serving as a forum for discussion of water conservation ideas among agency representatives, and as a means of reporting to the Secretary of the Interior on the progress of this aspect of water policy

implementation. This report:

- . identifies the water and waste disposal programs affected by the President's directive;
- . summarizes the purposes, authorities, and funding levels of each program;
- . identifies existing provisions in some programs which serve to encourage water conservation;
- . identifies any disincentives to water conservation which may now exist in the programs;
- . presents options for modifying the programs to further encourage water conservation.

In addition, this report discusses:

- . a definition of water conservation as applied to the affected programs;
- . some of the most important water conservation issues, and some of the implications of water conservation actions;
- . public participation;
- . requirements for environmental analyses and environmental impact statements.

Schedule:

<u>November - December:</u>	Regular Task Force meetings (open to the public) to finalize criteria to be used in evaluating options, and to assist agencies in conducting evaluation; consider additional options, and comments
-----------------------------	--

from the public and other government agencies; develop components of "water conservation plan"; rank options in terms of their effectiveness and ease of implementation; prepare recommendations to heads of affected agencies; develop final report and distribute for review and comment; secure concurrence from affected agencies.

November 16:

Overview briefing for the public on water policy implementation; status reports from each water policy implementation task force; 1:00 PM - 4:00 PM, Room 7000 A/B, Main Interior Building, Washington, D.C.

November 27:

Task Force No. 11 (Grants and Loans — water supply and wastewater treatment) meets as part of concurrent task force meeting sessions. 10:00 AM, Room 7000 A/B, Main Interior Building, Washington, D.C.

November 28 - 29:

National Conference: Water Conservation and Municipal Wastewater Flow Reduction, Ramada - O'Hare Inn, Chicago, Illinois.

<u>January 15, 1979:</u>	Final report to be transmitted to Secretary of the Interior.
<u>September 30, 1979:</u>	Options selected by agencies and identified in final report to be fully implemented.

Task Force meetings are scheduled as follows:

November 21

November 27 (at Interior Department)

December 5

December 12

December 19

January 9 (if necessary)

Unless otherwise noted, or unless notice is given in advance, all meetings of the Task Force will be held at 9:00 AM in Room 1032 of the East Tower, Waterside Mall: 4th and "M" Streets, S.W., Washington, D.C.

D. Discussion

1. Definition of Water Conservation: The Task Force has accepted guidance regarding a definition of water conservation from the Interior Department's Water Policy Implementation Group:

Actions to implement the President's policy on water conservation should consist of proposed changes that will (a) reduce the demand for water; (b) improve efficiency in use and reduce losses and waste; and (c) improve land management practices to conserve water.

2. Summary of Major Issues and Objectives for Water Conserva-

tion: The President's Water Policy Message clearly identifies water conservation goals as the "cornerstone" of new water policy directions in the Federal government. The rationale for this emphasis is discussed at length in the December 6, 1977 report of the Water Conservation Task Group, the interagency group which provided background information for the Water Policy Message. That report is available from the U.S. Water Resources Council (WRC). Also being published by the Council is the Second National Water Assessment, a comprehensive study of the adequacy of the Nation's water and related land resources to meet present and future requirements for these resources. The Second Assessment discusses in detail several subjects which are directly related to this presentation of potential water conservation provisions in grant and loan programs for water supply and wastewater treatment facilities. These subjects include:

- . identification of water-short areas of the Nation, and areas which may experience water shortages in the future;
- . data on water use patterns for various uses.

Most of the areas identified as "water-short" are the arid "sunbelt" areas in the Southwest and lower Midwest. Competition for water supplies in these areas is especially

fierce, and options for developing new water supplies are limited. By the year 2000, this problem is expected to spread to other regions of the Nation, even to areas which have traditionally experienced few water supply problems. Competition for a finite supply of high-quality water makes the resource scarce in many areas, since increasing demands for one use (such as irrigation or manufacturing) place stress on water availability for another use (such as domestic supply).

The domestic side of water use is the subject of this report. Domestic use, however, is far from being the biggest part of the Nation's water problem. Irrigation accounts for approximately 80% of water use in the Nation, while domestic use shares the remaining 20% of the water use picture with manufacturing, withdrawals for steam electric power plants, and other uses. Water conservation in agriculture (especially in Federally-subsidized irrigated agriculture) is the subject of other water policy implementation task force reports.

Even though domestic use of water does not consume the major share of the Nation's available supply, the amounts of water consumed are staggering, and many opportunities exist for stretching the available supplies through simple conservation measures and repairs to existing systems. The Federal government, in its role of providing partial

financial support for new or expanded water supply and wastewater treatment facilities, can exert a strong influence on communities throughout the Nation, especially in identified water-short areas, to assist in conserving water.

One basic objective of water conservation is to save water at one place and at one time to make it available for other beneficial uses. The benefits of conserving supplies may be obscured by other factors (such as the interrelationships between groundwater and surface water, and between water quality and water quantity), but they have been proven; and they include:

- . reduced consumer costs for energy (it takes a lot of energy to move water around, and to treat it);
- . reduced costs for water and wastewater services;
- . reduced costs (Federal, State, and local) for new supplies and capacity increases in treatment works;
- . minimized environmental, social, and economic impacts of expanding existing supplies or developing new ones;
- . minimized impact of naturally-occurring water shortages.

3. Public Participation : Involvement of the general public and groups which have an interest in water policy implementation is expected, and will be encouraged as the options

presented in this report are subjected to analysis over the next several months. Additional opportunities for public participation will be available as each Department and agency implements the selected options, through possible changes in regulations and procedures. The Task Force has developed the following plan for encouraging public involvement:

- . participation in the concurrent sessions of Water Policy Implementation Task Force meetings, November 27-29, at the Interior Department;
- . advance notification of Task Force meeting dates (through this report and through personal contact) to persons and groups known to be interested in the progress of the Task Force;
- . development and distribution of "concept papers", summarizing the options under consideration, and the criteria for their evaluation;
- . participation at EPA's National Conference on Water Conservation and Municipal Wastewater Flow Reduction in Chicago, November 28-29;
- . public participation as part of agency rulemaking procedures, as options selected by the Task Force and adopted by agency heads are implemented between January 15 and September 30, 1979.

4. Environmental Impact Statement: No decision has been made at this time regarding the need for an environmental impact



statement as part of the work of this Task Force. It is the preliminary feeling of Task Force representatives that each Department and agency should decide whether an impact statement is necessary, as options which have been selected are implemented through normal procedures.

II. DESCRIPTIONS OF PROGRAMS AFFECTED  
BY PRESIDENTIAL DIRECTIVE

A. Department of Agriculture -- Farmers Home Administration

Water and Waste Disposal Systems for Rural Communities

Authorizing Legislation: Consolidated Farm and Rural  
Development Act, Section 306; P.L.  
92-419; 7 U.S.C. 1926

Funding: Loans -- \$750 million (1978)

Grants - \$250 million (1978)

Description: The objectives of this program are to provide basic human amenities, alleviate health hazards, and promote the orderly growth of the rural areas of the Nation by meeting the need for new and improved rural water and waste disposal systems. Aid recipients include municipalities, counties, and other political subdivisions of a State, such as districts and authorities; associations, cooperatives, and corporations operated on a not-for-profit basis; and Indian tribes on Federal and State reservations and other Federally recognized Indian tribes. Facilities shall primarily serve rural residents. The service area shall not include any city or town having a population in excess of 10,000 inhabitants. The applicant must

not be able to finance the proposed project from its own resources or through commercial credit at reasonable rates and terms. Funds are allocated to States based on a formula arrived at by two to one weight ratios on the following criteria: households in poverty in the State compared to National average, and rural population in the State compared to the National average.

B. Department of Commerce -- Economic Development Administration

1. Section 304 -- Supplemental and Basic Grants to States

Authorizing Legislations: P.L. 89-136 as amended

Funding: \$20 million, F.Y. 1978

Description: Grants to States for their discretionary use.

States can use 304 funds for projects that meet the requirements of Titles I and IX. Funds are allocated by legislative formula. Recipients of aid may be those eligible under Title I. Funds may be used for the construction of water and sewer facilities.

2. Title IX -- Special Economic Development and Adjustment Assistance

Authorizing Legislations: P.L. 89-136 as amended

Funding: \$85 million, F.Y. 1978

Description: Grant for development and implementation projects to ameliorate or prevent sudden

dislocations in a community's economy.

Communities may reloan grants and set up revolving loan funds. Recently the act was amended to include economic long term deterioration as a situation in which a community could become eligible for Title IX assistance. Funds are allocated by economic need based on historical data. Funds may be used to construct water and sewer facilities. Recipients of Title IX funds may be state and local government and non-profit corporations.

3. Public Works and Development Facilities -- Title I

Authorizing Legislation: P.L. 89-136 as amended

Funding: \$189.5 million, F.Y. 1978

Description: Grant for public works and development

facilities that will provide economic development by (1) ameliorate distress (2) stabilize or diversify the economy or (3) stimulate growth in designated areas. Recipients of aid would be state and local government and non-profit corporations. Funds are allocated by economic need based on historical data. Grants may be used to construct water and sewer facilities.

4. Public Works Impact Program

Authorizing Legislations: P.L. 89-136 as amended

Funding: 15% of Title I funds

Description: Grant for the construction of public facilities to stimulate short term construction jobs. Recipients of aid would be state and local government and non-profit corporations. Funds are allocated by economic need based on historical data. Grants may be used to construct water and sewer facilities. However, this year \$20 million of PWIP funds have been committed for energy conservation projects in public buildings.

C. Department of Commerce -- National Oceanic and Atmospheric Administration

1. Office of Costal Zone Management: Coastal Energy Impact Program

Authorizing Legislation: Coastal Zone Management Act of 1972, as amended (P.L. 94-370)

Funding:

Description: This program provides coastal States and units of local government with financial assistance to mitigate the adverse on-shore effects of new or expanded coastal energy activity. Assistance is available for planning, construction of public

facilities and public services (including water supply and waste disposal facilities), repayment, and for the prevention, reduction, or amelioration of unavoidable losses of valuable environmental or recreational resources.

Financial assistance is provided either on a formula basis from the Coastal Energy Impact Fund, or through Section 308(b) Formula Grants.

2. Office of Coastal Zone Management: State Coastal Management Programs

Authorizing Legislation: Coastal Zone Management Act of 1972, as amended (P.L. 94-370)

Funding:

Description: This program provides financial assistance to coastal zone States to assist in the development of management programs to achieve wise use of the land and water resources of the coastal zone, giving full consideration to ecological, cultural, historic, and aesthetic values as well as to needs for economic development.

D. Environmental Protection Agency

1. Construction Grants for Wastewater Treatment Works

Authorizing Legislation: Title II of the Federal Water Pollution Control Act, as amended, Public Law 92-500; amendments under

the Clean Water Act of 1977,  
(P.L. 95-217).

Funding: \$18 billion contract authority originally. Re-allotment on 9/30/77 \$480 million appropriated by Talmadge/Nunn Amendment, available until expended; \$ 1 billion appropriated on 5/4/77, available for three years before reallotment \$4.5 billion appropriated on 3/7/78, available until 9/30/79 before reallotment.

Description: The U.S. Environmental Protection Agency's Construction Grants Program is the major pollution abatement program of the Federal Government in partnership with State and municipal governments. Its purpose is to abate water pollution by providing grant dollars to construct municipal wastewater treatment facilities which are required to meet State and Federal water quality standards.

Funds are obligated through project grants to any municipal, intermunicipal, State, interstate agency, or Indian Tribe having jurisdiction over disposal of wastes. Grant awards within individual states are limited by the funds which have been allocated to each state. The grant is for 75% of eligible project costs. If certain

requirements are met, the Federal share could be increased to 85%. The remaining costs are the responsibility of the grant recipient.

As mandated by law, the goal of the program is to abate water pollution and enhance water quality in order to provide for the protection and propagation of fish, shellfish and wildlife and increase the recreational uses of our nation's waterways.

2. State and Areawide Waste Treatment Management

Authorizing Legislations: Sections 208 and 303(e) of the Clean Water Act (P.L. 95-217).

Funding: Funding is appropriated annually. Funding for F.Y. 77 - 79:

<u>Fiscal Year</u>	<u>Amount</u>
1977	\$14 million (to be obligated within 2 years)
1978	\$69 million (to be obligated within 2 years)
1979	\$32.6 million (to be obligated within 2 years)

Description: The State and Areawide Waste Treatment Management Program is a component of the Water Quality Management Program. The Water Quality Management Program is an umbrella program coordinating water pollution abatement activities funded under §106,



§208, §314, and part of §205(g) of the Act and also satisfying requirements of §303(e) of the Act.

Under the State and Areawide Waste Treatment Management Program, States and areawide planning agencies designated by the Governor receive grants from EPA for the development of water quality management plans for the abatement of water pollution in order to achieve the goals of the Clean Water Act of water suitable for swimming, fishing, and protection of wildlife by 1983, where attainable. Participating agencies receive grants (up to 75% under Section 208) to conduct water quality assessments; identify water quality and source control problems and priorities; and determine effective point and non-point source controls to be implemented by designated State, areawide and local agencies. Plans must provide for the development of institutional processes, including fiscal and management structures, to make and implement coordinated State and areawide water quality management decisions. At a minimum, award of sewage treatment plant construction grants and issuance of discharge permits must be consistent with approved water quality management plans.

The available funding for a given fiscal year is divided among the ten EPA regional offices in

accordance with a ratio weighted according to land area and population of the planning areas in the regions. States and areawide planning agencies within a given EPA region negotiate their specific grant amounts with the EPA regional office.

Water quality management decisions made in developing and implementing water quality management plans affect the use of water. There is a close relationship between water quality and water quantity. Decisions leading to higher water quality lead to increased utility of water for various uses.

3. Clean Lakes Program

Authorizing Legislations: Section 314 of the Clean Water Act (P.L. 95-217).

Funding: Funding is appropriated annually.

<u>Fiscal Year</u>	<u>Amount</u>
1975	\$ 4.0 million
1976	15.0 million
1977	15.0 million
1978	2.3 million
1979	15.0 million

Description: Under Section 314 of the Clean Water Act, financial assistance may be provided to States to implement methods and procedures to restore

publicly owned freshwater lakes. Although grants may only be awarded to States, intergovernmental agreements are allowed whereby States, where appropriate, may delegate all or certain portions of the required work to municipalities or local agencies. Only projects for publicly owned freshwater lakes that the State has prioritized and certified as being in accordance with the State Water Quality Management Plan are eligible for grant assistance.

The Clean Lakes Program provides for Phase 1 grants and Phase 2 grants. The purpose of a Phase 1 grant is to conduct a diagnostic-feasibility study to determine a lake's characteristics, and evaluate and recommend a feasible course of action to address identified problems for the restoration and preservation of the quality of the lake. Phase 1 grants are awarded up to \$100,000 per grant, with a 70-percent Federal/30-percent grantee match. A Phase 2 grant is for the implementation of recommended pollution control or lake restorative methods and procedures. The Federal share of Phase 2 matching grants is 60%, with the grantee paying 40%. The award of a Phase 1 grant does not obligate EPA to award a Phase 2 grant. Additionally, the award of a Phase 1 grant is not a prerequisite for a Phase 2 grant. However, a Phase 2 grant application

for a proposed project not studied under a Phase 1 grant must contain required diagnostic and feasibility information.

All applications for Phase 1 and Phase 2 grants are evaluated and awarded on the basis of merit and national competition in accordance with the proposal review factors and available appropriations for the clean lakes program. The proposal review factors include technical feasibility, public benefit, reasonableness of proposed costs, environmental impact, and the States's priority ranking of the lake project.

Before awarding grant assistance, the Regional Administrator must determine that pollution control measures in the lake watershed required by section 201, approved 208 planning, and section 402 of the Clean Water Act are in place, or progressing according to an approved plan or discharge permit by the time of project completion. Clean lakes funds may not be used for the control of point source discharge of pollutants where the issuance of municipal or industrial permits under section 402 of the Act or the planning and construction of wastewater treatment facilities under section 201 of the Act will lead to alleviation of the cause or causes of pollution.

4. State Pollution Control Program

Authorizing Legislation: Section 106 of the Clean Water Act (P.L. 95-217).

Funding: Funding is appropriated annually. Funding for F.Y. 73-79:

<u>Fiscal Year</u>	<u>Amount</u>
1973	\$40.0 million
1974	40.0 million
1975	48.5 million
1976	50.0 million
1977	50.0 million
1978	52.4 million
1979	52.4 million

Description: The 106 program is a component of the water quality management program. The water quality management program is an umbrella program coordinating water pollution abatement activities funded under §106, §208, §314, and part of §205(g) of the Act and also satisfies requirements of §303(e) of the Act.

Section 106 authorizes grants to be made to States and interstate agencies for the purpose of assisting them in administering programs for the prevention, reduction and elimination of pollution. Grants under 106 provide assistance for Federal and

State priority activities including water quality standards review and revision; monitoring and reporting; administration of delegated wastewater facility management; NPDES permitting and enforcement programs; emergency response programs; water quality management planning coordination; and other appropriate priorities.

Funding is allocated to State and interstate agencies on the basis of the extent of the pollution problem. State allotment ratios are based on a count of pollution sources for each State compared to a count of the pollution sources in the nation. Interstate allotment ratios are based on the level of funding received in fiscal year 1973.

Section 106 grants can be used for variety of purposes. According to the Act, these grants are authorized "to States and to interstate agencies to assist them in administering programs for the prevention, reduction, and elimination of pollution". Present regulations list 9 major program elements which can be funded by Section 106. Other water pollution control activities are also eligible. Among those areas with most relevance to the Water conservation Task Force are the following:

a. National Pollution Discharge Elimination  
Systems (NPDES)

This program regulates the discharge of pollutants from point sources into the waters of the United States. All such discharges are unlawful in the absence of an NPDES permit. Once a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. NPDES permits are issued by the Director of an approved State NPDES program, or, where there is no approved State program, by the EPA Enforcement Director. Such permits may specify maximum concentrations or mass of pollutants, performance criteria or other appropriate limitations.

b. 305(b) Water Quality Report

Section 305(b) reports, which must be prepared biannually by the States, are concerned with assessing water quality problems and their causes; progress toward meeting the 1983 goals of the Act; and the social, economic, and environmental impact of meeting these goals. The information developed in the Report is part of the problem assessment required in water quality management plans; an annually updated five-year State strategy must address problems identified in the assessment.

More specifically, section 305(b) requires States to provide the following information:

- . A description of current water quality relative to the fishable/swimmable goals of the Act,
- . Projections of water quality conditions after implementation of the control programs specified in the Act,
- . An estimate of the environmental, social and economic impacts of achieving or not achieving the goals of the Act.
- . An assessment of nonpoint source problems, along with recommendations for their control,
- . An evaluation of the effectiveness of existing pollution control programs and recommendations for future modifications to those programs, if needed.

c. Water Quality Standards

Water quality standards are an essential part of the State water quality management (WQM) system.

- . Publicly defined the State's water quality objectives, and hence form the basis for its planning;
- . Serve as the basis for determining National Pollution Discharge Elimination System



(NPDES) permit effluent limitations for pollutants which are not specifically addressed in the effluent guidelines or for pollutants for which the effluent guidelines are not stringent enough to protect desired uses;

- . Serve as a basis for evaluating and modifying Best Management Practices (BMP) for control of nonpoint sources;
- . Serve as a basis for judgment in other water quality related programs, including water storage for regulation of stream flow, water quality inventories, control of toxic substances, thermal discharges, cooling lakes, aquaculture, and dredge and fill activities.
- . Contain the State's antidegradation policy.

Standards must be reviewed and revised, where appropriate, at least once every three years to assure that the standards are consistent with the Act and regulations.

EPA strongly supports the establishment of water quality standards which will support the protection and propagation of fish, shellfish and wildlife and recreation in and on the water. In furtherance of this objective, EPA believes that

water quality standards should be established at levels consistent with the national water quality goal of section 101(a)(2) of the Act for every stream segment wherever those levels are attainable.

d. State/EPA Agreement (SEA)

Preparation of the SEA is funded in part by Section 106 and 208, which both cover some program administration costs. More significantly, the SEA will be the mechanism for States to decide how to solve their priority environmental problems with available federal funds (including those allocated under Section 106) as well as matching State funds.

The SEA is negotiated annually between the Regional Administrator and the Governor. It identifies water quality management problems and objectives, describes coordination with other environmental programs, summarizes major work program outputs, and includes a detailed annual work program for water quality management. In FY 1979 EPA is requiring all Regions and States to develop comprehensive SEA's covering all Clean Water Act programs. Beginning in FY 1980, SEA's will integrate and coordinate environmental

programs in all States creating joint planning and implementation of Safe Drinking Water Act, Resource conservation and Recovery Act, and Clean Water Act programs.

The SEA will be a decision document which reflects important decisions on environmental and programmatic problems, priorities, timing, responsibilities, and allocation of funds. It will be a management tool which focuses top management attention on the evaluation and accomplishment of major environmental objectives. Finally, it will be a communication and information document useful to local governments, areawide agencies, affected or interested publics, and others.

5. State Public Water System Supervision Program

Authorizing Legislation: §1443 and 1450 of the Safe Drinking Water Act (P.L. 95-190).

Funding: Funding is appropriated bi-annually. Funding for F.Y. 76-79:

<u>Fiscal Year</u>	<u>Amount</u>
1976	\$7.5 million
1977	15.0 million
1978	20.5 million
1979	26.4 million

Description: §1443 authorizes grants to be made to State agencies for the development and administration of public water system supervision programs: adoption and enforcement of drinking water regulations which are no less stringent than the national interim primary drinking water regulations. Grants may only be awarded to those States that have or will establish, within one year of grant award, a public water supervision program and will assume primary enforcement responsibility within the State.

6. State Underground Injection Control Program

Authorizing Legislations: §1443 and 1450 of the Safe Drinking Water Act (P.L. 95-190)

Funding: Funding is appropriated bi-annually. Funding for F.Y. 78 and 79:

<u>Fiscal Year</u>	<u>Amount</u>
1977	\$5.0 million
1978	6.0 million
1979	7.6 million

Description: §1443 of the Safe Drinking Water Act provides for grants to States designated by EPA as required underground injection control (UIC) programs. The purpose of these grants is to support the development, administration and enforcement of State UIC programs that are no

less stringent than minimum requirements promulgated by EPA. Grants may only be awarded to those States that have or will establish a UIC program and will assume primary enforcement responsibility for underground waters within the State.

E. Department of Housing and Urban Development

1. Community Development Block Grant (CDBG) Program  
(Entitlement Communities)

Authorizing Legislation: Housing and Community Development Act of 1974, (P.L. 93-383); as amended by the Housing and Community Development Act of 1977, (P.L. 95-128)

Funding: (Entitlement Communities)

<u>Fiscal Year</u>	<u>Amount</u>
1975	\$ 2,218,730,000
1976	2,352,959,000
1977	2,662,733,000
1978	2,792,911,000
1979	2,733,760,000
1980	2,716,000,000

Description: The CDBG program provides funds only to units of general local government, such as cities, counties, and townships. A single, flexible-purpose program, the block grant program finances most

activities previously eligible under separate categorical grant programs: Urban Renewal; Neighborhood Development Grants; Model Cities; Water and Sewers; Neighborhood Facilities; Public Facilities and Rehabilitation Loans; Open Space, Urban Beautification and Historic Preservation.

Spending priorities are determined at the local level, but the law cites general objectives which the block grants are designed to fulfill, including adequate housing, a suitable living environment for all, and expanded economic opportunities for low- and moderate-income groups. Metropolitan cities and urban counties with populations of at least 50,000 and 200,000 respectively, are called entitlement grantees. Their grants are based on need, objectively calculated by a formula that includes population, poverty, overcrowded housing and population growth lag.

Section 570.201(c)(10) of the CDBG program regulations (24 CFR) provides for the eligibility of "Water and Sewer Facilities, including storm sewers, except for sewage treatment works and interceptor sewers..."

Water and sewer projects are decreasing in the percentage of CDBG funds budgeted, while other

public works are increasing. Water and sewer projects accounted for 6.1 percent in the first (Fiscal Year 1975) program year, 3.6 percent in the second year and 2.9 percent in the third (Fiscal Year 1977) program year. Storm and sanitary sewers are one type of project included in the water and sewer category, receiving 1.7 percent of the total funds. An example of a storm and sanitary sewer project is in Bristol, Connecticut, where the city "is expanding and improving storm and sanitary facilities to service areas of concentration low and moderate/disadvantaged population."

2. Small Cities Discretionary Grant Program

Authorizing Legislation: The Housing and Community

Development Act of 1977 (P.L. 95-128)

Funding: Funds are appropriated annually. Small Cities

funding for Fiscal Year 1975 - 1980:

<u>Fiscal Year</u>	<u>Amount</u>
1975	\$ 254,336,000
1976	346,041,000
1977	434,304,000
1978	612,589,000
1979	814,690,000
1980	979,000,000

Who May Apply: Units of general purpose local government, including States and counties, but excluding metropolitan or central cities of Standard Metropolitan Statistical Areas (SMSA's), Urban counties, and Indian tribes. In general, cities with less than 50,000 population are eligible.

Description: The Small Cities Discretionary Grant Program provides single purpose and comprehensive grants to communities to meet their housing and community development needs. Since the Program is competitive and the demand for grants far exceeds the available funds, the Department devised a national rating system to ensure that grants are fairly and equitably awarded. (Approximately 38,000 state and local governmental units are technically eligible to apply for the discretionary balance grants.) Grants are awarded to communities having the greatest need as evidence by poverty and substandard housing and whose applications most adequately address locally determined needs of low and moderate income persons, consistent with one or more of the following purposes:

- . Support realistic and attainable strategies for expanding low and moderate income housing opportunities;
- . Promote deconcentration of lower income housing;



- . Promote more rational land use;
- . Provide increased economic opportunities for low and moderate income persons; and
- . Correct deficiencies in public facilities which affect the public health or safety, especially of low and moderate income persons.

The Small Cities Discretionary Program provides grants to communities to undertake water and sewer projects when the project is necessary to correct deficiencies in public facilities which affect the public health or safety of low and moderate income persons.

3. Urban Development Action Grants

Authorizing Legislation: Housing and Community Development Act of 1977, (P.L. 95-128)

Funding: \$400,000,000 per year for three years.

Description: The Action Grant provides funds only to units of general local government, such as Cities, Counties and Townships. It finances all the activities which are eligible under the Community Development Block Grant Program, including water and sewer facilities, but its main objective is the creation of jobs and private investment in distressed Cities. Applicant Cities compete against each other nationally with those applications providing the most jobs and

private investment being the most likely to be funded.

4. Comprehensive Planning Assistance (701) Program

Authorizing Legislation: National Housing Act of 1954,  
Section 701, as amended, Public Law  
83-560, 68 Stat. 590, 640; 40 U.S.C.  
461.

Funding:

<u>Fiscal Year</u>	<u>Amount</u>
1975	\$100,000,000
1976	75,000,000
1977	62,500,000
1978	57,000,000
1979	53,000,000

Description: The 701 program provides funds to States for planning assistance to local governments.

States for State, interstate, metropolitan, district or regional activities; metropolitan clearinghouses, councils of governments, Indian tribal groups or bodies, or other governmental units having special planning needs. Large cities (cities of 50,000 or more) and urban counties as defined in Title I of the Housing and Community Development Act of 1974 are not eligible for assistance in FY 1979. Comprehensive Planning Assistance funds may be used

to support a broad range of planning and management activities including improving the chief executive's capability to develop goals, allocate resources and manage programs undertaking community development planning and implementation activities and the development and implementation of land use and housing elements as part of a Comprehensive plan.

Funds are allocated by Central Office to HUD field offices by applicant categories. The amount of an applicant's grant is based upon an applicant's prior performance, progress in achieving objectives and completing plan elements; capability to assume responsibility; capability to coordinate planning, management and implementation on an inter-and intra-governmental basis; progress in implementing plans, policies and programs and negotiations with HUD on the nature and extent of activities to be undertaken.

The program regulations require grantees to take into account environmental conditions in developing plans, programs and policies to assure integration of environmental planning in the comprehensive planning process. In addition, grant recipients must prepare an environmental assessment when the assisted work program will result in developmental plans or policies for land use, major community facilities,

major utility systems, major transportation systems or the protection of natural areas. The assessment must provide an analysis of the long and short term environmental impacts (beneficial and adverse) of proposed plans or policies as well as alternative plans that were considered in the planning process.

### III. EXISTING WATER CONSERVATION MEASURES

Several of the agency representatives on the Task Force noted that some of their programs already include provisions which encourage water conservation.

#### A. Department of Agriculture -- Farmers Home Administration

##### Water and Waste Disposal Systems for Rural Communities

The Farmers Home Administration has identified several portions of their existing Instructions and Regulations which serve to encourage water conservation. These sections are cited below:

#### 1. FmHA Instruction 1933-A

##### Section 1933.17(a)(2)

##### 7 CFR 1823.2(b)

"(vii) Project priority. In determining project priorities, FmHA shall give due consideration to State development strategies, projects needing improvements to comply with the Safe Drinking Water Act, clearinghouse comments and priority recommendations. FmHA will assign priorities in accordance with the following:

(A) Water and sewer system applications from any municipality or other public agency (including an Indian Tribe on a Federal or State reservation or other Federally, recognized Indian tribal group) in a rural community having a population not in excess of 5,500 having an inadequate water or sewer system. Highest priority shall be given to such applications in which: (Revised 2-15-78; PN 609.)

(1) An existing community water supply system requires immediate action as a result of unanticipated diminution or

or deterioration of its water supply;  
or (Added 2-15-78, PN 609).

(2) An existing waste disposal is not adequate to meet the needs of the community as the result of unexpected occurrences. (Added 2-15-78, PN 609.)"

2. FmHA Instruction 1933-A

Section 1933.18(a)(3)(ii)

7 CFR 1823.23(b)(4)

"D. System Testing. Leakage shall not exceed 10 gallons per inch of pipe diameter per mile of pipe per 24 hours."

3. FmHA Instruction 1933-A

Section 1933.18(a)(3)(iv)

7 CFR 1823.23(d)

"(iv) Combined sanitary and storm sewage systems. Combined systems will not be financed except that improvements to existing combined systems may be financed, provided it would be impractical to provide separate systems and the proposal is approved by the State Environmental Protection (Water Pollution Control) Agency."

B. Department of Commerce -- Economic Development Administration

The Economic Development Administration reported that metered water systems are required for water facilities grants for projects funded under the following programs:

- . Section 304 -- Supplemental and Basic Grants to States
- . Public Works and Development Facilities -- Title I
- . Public Works Impact Program

C. Department of Commerce -- National Oceanic and Atmospheric Administration

NOAA reported that neither the Coastal Energy Impact Program nor the Coastal Zone Management Program contain incentives or disincentives for water conservation.

D. Environmental Protection Agency

1. Construction Grants for Wastewater Treatment Works

Through provisions adopted in the Clean Water Act of 1977 and subsequent regulations implementing the law, EPA has taken action to promote and encourage water conservation measures. These regulations promote water conservation by encouraging recycling and reuse of effluent and beneficial use of pollutants and more stringent flow reduction requirements. The following legislative requirements provide incentives to water conservation.

Encouragement of Innovative and Alternative Treatment Processes.

EPA has defined innovative and alternative treatment processes to be those techniques which foster recycling and reuse of water and waste materials, energy conservation and recovery and cost reduction. The agency is required to publish guidelines for identifying and evaluating these processes and technologies. A national clearing-house will be established by the agency to disperse this

information. Furthermore, EPA will develop and operate a public information program concerning recycling and reuse of wastewater and sludge, land treatment, and methods of reducing wastewater volumes.

Major 1977 provisions for innovative and alternative technology:

- . The keystone amendment in this area is straight forward: "(EPA) shall not make grants...to any state, municipality, or intermunicipal or inter-state agency for the erection, building, acquisition, alteration, remodeling, improvement, or extension of treatment works unless the grant applicant has satisfactorily demonstrated to (EPA) that innovative and alternative wastewater treatment processes and techniques... have been fully studied and evaluated..."
- . Federal grants for innovative and alternative facilities will provide 85% of construction costs rather than the normal 75%.
- . To provide funds for the increase from 75% to 85% grants, two percent of construction grant funds allocated to each State (three percent in fiscal 1981) must be set aside for innovative and alternative facilities -- with at least one-half of one percent earmarked for innovative facilities.



- . To help speed deployment of innovative and alternative technology, projects using alternative or innovative techniques are to be given preference and qualify for the 85% grant if their life cycle cost under a cost effectiveness analysis does not exceed the life cycle cost of the most cost effective conventional alternative by more than 15%.
- . The amendments provide an "insurance policy" -- EPA will pay 100% of the costs of modifying or replacing any innovative or alternative facility which does not meet design performance standards, and shows significantly increased operation and maintenance costs. (One hundred percent grants are also available for technical evaluation and dissemination of information.)
- . States are empowered to modify their priority systems for allocating Federal grant funds to give higher priority ratings to design of innovative and alternative facilities.
- . Four percent of grant funds allotted to each state with a rural population of 25% or greater "shall be available only for alternatives to conventional sewage treatment works for municipalities having a population of 3,500 or less, or for the highly

dispersed sections of larger municipalities."

- . The Federal Government is to play a leadership role in utilizing innovative and alternative technologies. After September 30, 1978, construction may not be initiated on any wastewater treatment works at a Federal property or facility unless innovative or alternative techniques are utilized; this requirement does not apply, however, if the costs of innovative and alternative techniques are more than 15% above the most cost-effective alternative.
- . On the industrial side, the 1938 BAT deadline may be extended until July 1, 1987, for an industry installing an innovative pollution control system (see pollution classification section above..)

Innovative and Alternative Technology Related Provisions:

- . Two amendments specifically prohibit EPA from granting funds for construction of municipal wastewater facilities unless the applicant demonstrates that it has considered methods, processes and techniques to reduce total energy consumption, and has analyzed the open space and public recreation potential of lands, waters, and rights-of-way which are parts of the proposed project.
- . EPA is instructed to study and report by October 1978 upon the use of effluents and sludges for

agricultural and other processes that utilize nutrients, and to advise Congress whether or not further legislation is desirable to "encourage or require" the use of sludge for agricultural and other beneficial purposes.

#### Cost Effectiveness

The new cost-effectiveness guidelines emphasize identification and selection of cost effective alternatives which provide for recycling and reuse of effluents, pollutants, and sludges.

- . The new amendments provide a 15% cost effective bonus for application of innovative and alternative technology.
- . The guidelines have undergone a major revision redirecting their emphasis to non-conventional solution which include innovative and alternative processes.
- . The guidelines promote flow reduction measures by imposing more stringent reserve capacity requirements.

#### 2. State and Areawide Waste Treatment Management

The proposed water quality management regulations contain no disincentives to water conservation. The only explicit incentive is the requirement that water conservation needs be considered in determining wastewater treatment

facilities needs. (See 40 CFR Part 35.1519-6(d)(1)).

Best management practices for control of non-point source water pollution which are implemented as a result of water quality management plans (See 40 CFR Part 35.1519.6(c)), often conserve water, although to date, that effect has not been explicitly publicized. See also Chapter IV.

E. Department of Housing and Urban Development

1. Community Development Block Grant Program (Entitlement Communities)

The CDBG program provides neither incentives nor disincentives to water conservation activities since units of general local government are accorded wide discretion in determining local community development needs. In order to place greater emphasis on water conservation related activities than a community would determine on its own, a legislative change would be required.

2. Small Cities Discretionary Grant Program

The Small Cities Discretionary Program provides neither incentives nor disincentives to water conservation activities since units of general local governments are accorded wide discretion in determining their local community development needs.

3. Urban Development Action Grants

The Action Grant program provides neither incentives nor disincentives to water conservation activities since

units of general local government are accorded wide discretion in determining the activities for which funds are sought. The placement of a greater emphasis on water conservation related activities would be difficult since most water facilities are publically owned and sufficient jobs and private investment to produce an approvable project would be difficult to generate.

4. Comprehensive Planning Assistance (701) Program

The 701 program provides neither incentives nor disincentives to water conservation activities since grantees determine what policies, plans and programs should be included in the comprehensive plan.

A change in the program regulations and additional funding would be required in order to place a greater emphasis on water conservation planning.

#### IV. OPTIONS FOR ENCOURAGING WATER CONSERVATION IN IDENTIFIED PROGRAMS

Representatives of each agency and department of the Task Force were asked to conduct a thorough review of the programs which had been identified as being affected by the President's Directive, and to develop a list of ideas which, if implemented, would serve to encourage water conservation in the communities which benefit from the programs. Task Force members were asked to review regulations, guidance documents, design criteria, legislation, and other material which governs the administration of each affected program, keeping in mind the goals of the water policy initiatives, the objectives of water conservation measures, and the definition of water conservation presented earlier.

These options will be subjected to analyses over the next few months, with special attention being given to:

- . benefits
- . costs
- . timing of implementation
- . data needs
- . advantages
- . disadvantages
- . other factors which the Task Force agrees upon.

Following analysis by the Task Force, the final report will recommend the selection of options included in this report, the deletion of options, or possibly new options that have not yet been

identified. Options include changes in administrative procedures and modifications to existing regulations. Few legislative changes are under consideration at this time.

Department of Agriculture - Farmers Home Administration

Water and Waste Disposal Systems for Rural Communities

1. Water Meters:

Issue: Current FmHA regulations do not require the use of individual residential water meters in communities receiving financial assistance for water supply systems. Water meters can provide an incentive to conserve water by making the user more aware of the relationship between cost and water use.

Option: Revise FmHA Instruction 1933.18(a)(3)(ii) by adding a new subsection "(G)" (7 CFR 1823.23(b)) to require water meters:

"G. Metering devices. Water facilities being financed by FmHA will have metering devices for each connection. An exception to this requirement may be granted by the FmHA State Director when the applicant demonstrates that installation of metering devices would be a significant economic detriment and that environmental consideration should not be adversely affected by not installing such devices."

Authority: 7 U.S.C. 1989; delegation of authority by the Secretary of Agriculture, 7 CFR 2.23; delegation of authority by the Assistant Secretary for Rural Development, 7 CFR 2.70.



Department of Agriculture - Farmers Home Administration

2. Leakage:

Issue: Leaky water distribution systems lose water and may require the premature expansion of a community water treatment facility. If the leaks in the system were repaired, expansion might not be necessary in some cases.

Option: Revise FmHA Instruction 1933.18(a)(3)(ii) by adding a new subsection "(H)" (7CFR 1823.23(b)) to require consideration of leaky distribution systems, and to provide for their repair:

"H. Distribution Leakage: On existing systems, evidence must be provided which indicates that water loss does not exceed reasonable levels. Funds may be provided to make repairs when it is determined necessary by the State Director."

Authority: 7 U.S.C. 1989; delegation of authority by the Secretary of Agriculture, 7 CFR 2.23; delegation of authority by the Assistant Secretary for Rural Development, 7 CFR 2.70.

Department of Agriculture - Farmers Home Administration

3. Rates of Payment for Water and Sewer Service:

Issue: Some rate structures discourage water conservation by charging less per unit of water consumed or treated for large water users.

Options: Revise FmHA Instruction 1933.17(a)(9) by adding a new subsection "(iii)"(7 CFR 1823.9) to require the use of equitable rate structures in communities receiving FmHA financial assistance for water and sewer facilities.

"iii. User rates - rates for water and sewer system will be developed so that the cost of production or treatment will be paid by all categories of users."

Authority: 7 U.S.C. 1989; delegation of authority by the Secretary of Agriculture, 7 CFR 2.23; delegation of authority by the Assistant Secretary for Rural Development, 7 CFR 2.70.

Department of Agriculture - Farmers Home Administration

4. Public Education Program for Water Conservation:

Issue: Individual water users in many communities may not be aware of the benefits of water conservation to themselves and their communities. The water and sewer system authorities in these communities could inform residents of these benefits in conjunction with receiving FmHA financial assistance for water and sewer systems.

Option: Revise FmHA Instruction 1933.17(a)(9) by adding a new subsection "(iv)" (7 CFR 1823.9) to require communities to develop a public education program for water conservation:

"iv. All water and sewer system will develop an educational program that will inform users of water conservation methods. Such programs will include but not be limited to:

(a) A comprehensive program to be completed prior to completion of construction.

(b) Continual Program "

Authority: 7 U.S.C. 1989; delegation of authority by the Secretary of Agriculture, 7 CFR 2.23; delegation of authority by the Assistant Secretary for Rural Development, 7 CFR 2.70.

Department of Agriculture - Farmers Home Administration

5. Water Conservation Practices as a Condition of FmHA Funding:

Issue: FmHA loans and grants for water and sewer systems are normally conditional upon satisfactory compliance with a number of requirements. Water conservation is not now included as a condition of funding.

Option: Revise the FmHA "letter of condition: requirements (FmHA Instruction 1933.5(a)(3)) by adding a new subsection "(iv)" to require conditioning of loans and grants for the purposes of water conservation:

"(iv) Each letter of condition for water and/or waste disposal projects will contain the following paragraph:

The use of water conservation practices will be incorporated in the design and operation of the proposed facility whenever economically feasible."

Authority: 7 U.S.C. 1989; delegation of authority by the Secretary of Agriculture, 7 CFR 2.23; delegation of authority by the Assistant Secretary for Rural Development, 7 CFR 2.70.

Department of Commerce - Economic Development Administration

1. Design Criteria:

Goal: Provide incentives for water conservation in communities receiving financial assistance from EDA by specifying design criteria to be used by applicants in planning and designing water and/or sewer facilities.

Option: EDA could require that water conserving design criteria be used by grantees/borrowers in planning and designing water and/or wastewater systems:

- a. The Assistant Secretary for Economic Development could issue a policy directive -- engineering, to all Regional offices which specifies that detailed design criteria for the purposes of water conservation would be applied to all water/wastewater projects funded by EDA;
- b. A revised list of subjects to be discussed at pre-application conferences could be prepared to inform applications of the requirements for project design;
- c. A Technical Guidance Manual could be prepared for the use of EDA field offices in advising applicants of water conserving designs for potential projects; EDA is currently preparing such a manual, and it could be reviewed as developed to ensure that water conservation measures are included;

- d. EDA regulations for processing applications and approving projects could be revised to state that applicants will be provided with design criteria specific to water conservation goals; alternatively, the regulations could be revised to specifically outline such requirements as:
- . maximum design capacities based upon realistic population projections;
  - . flow reduction measures for wastewater projects, consistent with water conservation goals outlines in the community's approved water conservation plan;
  - . limitations on allowable leakage rates in pipes for water supply, and limitations on allowable infiltration/inflow for wastewater projects.

Authority: §604 of P.L. 89-136, as amended (Economic Development Act of 1965)

Department of Commerce - Economic Development Administration

2. Water Conservation Plans:

Goal: Provide incentives for water conservation in communities receiving financial assistance from EDA by requiring that a water conservation plan be prepared as a condition to receiving a loan or grant for construction of water and/or sewer facilities.

Option: Each water and wastewater treatment project grant and/or loan could be conditioned upon the satisfactory completion of a water conservation plan:

- a. Water conservation plans could be required for all communities receiving grants or loans from EDA for such projects, or could be limited only to identified water short areas;
- b. The Assistant Secretary for Economic Development could issue a policy/procedure directive to Regional EDA offices, outlining the requirements for a water conservation plan, and describing the pre-application information to be requested from each applicant regarding water use in the community;
- c. EDA applications and lists of assurances required of applicants could be revised to include consideration of water conservation plans; detailed instructions to Regional offices and potential

applicants regarding the definition of a water short area, and the requirements of a water conservation plan, could be issued;

- d. Standard terms and conditions in contracts with EDA grantees/borrowers could be revised to include requirements for the preparation of a water conservation plan;
- e. Regulations for processing EDA applications and approving loans and grants for such projects could be revised as appropriate.

Authority: §604 of P.L. 89-136, as amended (Economic Development Act of 1965)



Department of Commerce - Economic Development Administration

3. Water Conservation Assistance

Goal: Provide information to applicants for EDA-assisted water and wastewater projects which would assist them in implementing water conservation programs in their communities.

Option: EDA could prepare a "Handbook for Applicants" which would provide water conservation information to applicants. Such information could include:

- . descriptions of the elements of a water conservation plan;
- . information regarding the availability of water-saving plumbing devices, such as low-flow toilets;
- . examples of "model" ordinances or changes to plumbing codes which would foster water conservation;
- . advice on setting rate structures to encourage water conservation;
- . advice on starting a public information/education program to promote a water conservation ethic, especially in water-short areas.

Such a handbook could be prepared either by EDA, with the assistance of other Federal agencies, or could be prepared by a consultant under contract to EDA. The handbook would be routinely distributed to potential

applicants at the pre-application conference.

Authority: § 604 of P.L. 89-136, as amended (Economic Development Act of 1965)

Department of Commerce - Economic Development Administration

4. Eligibility of Water Conservation Devices:

Goal: Provide communities receiving EDA financial assistance for water and wastewater projects with incentives for water conservation by specifying that water conservation devices are eligible for financial assistance.

Option: EDA regulations could be revised to specifically indicate that water conservation devices as identified in an applicant's approved water conservation plan, are eligible for financial assistance for EDA for water and wastewater projects. Such devices could include: water meters to be installed by the community; toilet dams, aerators, and low-flow shower heads, to be installed by individuals; and other flow reduction devices as specified in the water conservation plan.

Authority: §604 of P.L. 89-136, as amended (Economic Development Act of 1965).

Department of Commerce - National Oceanic and Atmospheric  
Administration

Coastal Energy Impact Program (CEIP)

Issue: Water conservation considerations are not currently included in CEIP criteria for providing loans or grants for municipal water supply or wastewater treatment facilities.

Option: CEIP loans and grants for municipal water supply or wastewater treatment facilities could be conditioned upon satisfactory compliance with community water conservation programs.

Department of Commerce - National Oceanic and Atmospheric  
Administration

State Coastal Management Programs

Issue: State Coastal Zone Management Programs are currently not required to consider water conservation measures in their planning process.

Option: The Office of Coastal Zone Management could issue policy guidance to participating States indicating additional State responsibilities to: identify water-short areas where water conservation initiatives are appropriate; condition development permits in those areas to effect water conservation where applicable and legally enforceable; review Federal activities and existing or new State policies included in Coastal Zone programs for consistency with water conservation needs in identified areas.

## Environmental Protection Agency

### Construction Grants for Wastewater Treatment Works

As noted in Chapter III (Existing Water Conservation Measures), the 1977 Amendments to the Clean Water Act include many provisions similar to those contemplated in the President's Directive for encouraging wastewater flow reduction and water conservation. In response to these amendments, EPA has just finished revising its regulations for the administration of the Construction Grant program, including Appendix A (Cost-Effectiveness Guidelines) and Appendix E (Innovative and Alternative Technology Guidelines). The important highlights of these revised regulations are summarized below:

- . §35.907: Requirements of pretreatment program will cause industries to conserve water due to economics.
- . §35.915(a)(1)(iii): Innovative and alternative projects may receive a higher priority. Many of these include water conservation or wastewater reclamation measures.
- . §35.905: Treatment works are defined to include "...elements essential to provide a reliable recycled supply such as standby treatment units and clear well facilities..." Such wastewater reclamation facilities are eligible for §201 Construction Grants.
- . §35.915-1(b) and 35.930-5(b): A 2% reserve in the FY 79 and FY 80 state allotments and a 3% reserve in the FY 81

state allotments is established to fund an additional 10% eligibility for innovative and alternative (I&A) projects, which include water conservation and reclamation/reuse projects.

- . §35.917-1(d): Wastewater flow reduction, innovative and alternative projects, reclamation, reuse, and land application must be specifically examined.
- . §35.927: Inflow/Infiltration rehabilitation maximizes the beneficial effects of water conserving and flow reducing measures and is required if I/I is excessive.
- . §35.929: User charge systems must provide that charges be proportional to usage thus rewarding flow reduction and water conservation in metered systems.
- . Section 7 of the cost-effectiveness guidelines provides for a 15% present worth advantage for innovative and alternative projects over conventional projects.
- . Section 6c of the innovative facilities guidelines defines water conservation as an element of the criteria used to determine eligibility.
- . One of the most significant flow reduction measures of the Construction Grant Program is Section 8c of the cost-effectiveness analysis guidelines which requires a flow reduction evaluation as part of the analysis that is used to determine the fundable system capacity. Capacity desired in excess of the cost-effective amount is funded on an

incremental basis.

- . Appendix E to the Construction Grant regulations provides guidelines for considerations of innovative and alternative facilities in facility planning. Wastewater reclamation and reuse facilities are included in the definition of these facilities.
- . Section 214 is being implemented by conducting a national seminar on water conservation.
- . Land purchase is eligible for storing treated wastewater in land treatment systems prior to land application.
- . EPA will pay 100% of the costs of modifying or replacing any innovative or alternative facility which does not meet design performance standards and shows significantly increased operation and maintenance costs.
- . A 4% set-aside required of rural States (States with rural population of 25% or greater) to be used for I&A facilities for municipalities having a population of 3,500 or less or for highly dispersed sections of larger municipalities within such states.



Environmental Protection Agency

Construction Grants for Wastewater Treatment Works

1. Market Area for Reclaimed Wastewater:

Issue: Because the Construction Grant regulations state that the planning area for wastewater treatment facilities should focus on the geographic area to be served by the system, applicants may be discouraged from fully considering wastewater reclamation or reuse if the market area for reclaimed wastewater is located outside the traditional facility planning area.

Option: For projects with reclamation/reuse potential, applicants could be advised early in the facility planning process that two project study areas should be considered in the facility plan:

- . project service area study
- . reclaimed wastewater market area study

Authority: §301(g)(5) of the Clean Water Act

Environmental Protection Agency

Construction Grants for Wastewater Treatment Works

2. Ability of Grantees to Implement Water Conservation Measures:

Issue: Implementation of an effective community water conservation plan may be difficult or impossible if the recipient of an EPA construction grant is a single-purpose agency (such as a wastewater treatment authority) incapable of securing community-wide commitments to water conservation, such as ordinance changes, or modifications to plumbing codes.

Option: Especially in areas with identified water conservation needs, EPA could encourage (based on the recommendation of the affected 208 Planning Agency) communities to carefully select the official local agency(s) which would receive the EPA grant. That agency(s) should have sufficient authority to implement any water conservation measures required as a condition of the grant. Such arrangements could be possible through the use of joint powers agreements, multi-agency agreements, or other means.

Authority: § 204(b)(1)(C) of the Clean Water Act

Environmental Protection Agency

Construction Grants for Wastewater Treatment Works

3. Design Criteria for Wastewater Flows:

Issue: The cost-effectiveness guidelines suggest that applicants base their design for new or expanded wastewater treatment facilities on per capita flows of 70 gallons per day. Historical wastewater flow data may be used for design purposes, however, if the flow reduction measures required to achieve the 70 gpd goal are not cost-effective. Because of variations in system characteristics and the general difficulties encountered in attempting to quantify potential successes in flow reduction for the purpose of cost-effective analyses, applicants may tend to analyze flow reduction alternatives less rigorously than conventional treatment schemes. Thus, water conservation measures may receive limited consideration because of the difficulties in obtaining sufficient data for their justification.

Option: Guidance could be issued which stresses the importance of conducting a rigorous analysis of flow reduction measures. Additional technical guidance could be issued by the Agency to assist applicants in the analysis of such measures.

Authority: §204(a)(5) of the Clean Water Act

Environmental Protection Agency

Construction Grants for Wastewater Treatment Works

4. Importance of Infiltration/Inflow Analysis:

Issue: In cases where the capacity of a sewer or treatment facility is determined by the amount of inflow to the system, a significant amount of water conservation or flow reduction would have a minimal effect on the capacity of the facilities. Additionally, in areas of saline ground water, significant infiltration may impair the potential for wastewater reclamation. For these reasons, infiltration/inflow analyses and evaluations might receive additional emphasis.

Option: Guidance could be issued to require more rigorous infiltration/inflow analyses and evaluations. Analyses and evaluations could be on a segment-by-segment approach rather than on an overall system basis. Primary emphasis could be in areas of saline groundwater where increased salinity in the effluent will impair reclamation potential and in systems where inflow determines the hydraulic capacity of the system.

Authority: §201(g)(3) of the Clean Water Act.

Environmental Protection Agency

Construction Grants for Wastewater Treatment Works

5. The Use of Economic Incentives (Rate Structures) to Encourage Wastewater Flow Reduction:

Issue: The use of surcharges or increasing block rate structures can encourage water conservation by penalizing excessive discharges into the sewer system.

Option: Guidance could be issued outlining the water conservation benefits of surcharges, and encouraging applicants to evaluate surcharges and innovative pricing policies in the development of their facility plans.

Authority: §§ 204(b)(1)(A) and 204 (b)(2) of the Clean Water Act.

Environmental Protection Agency

Construction Grants for Wastewater Treatment Works

6. Criteria for Sewer Use Ordinances:

Issue: Poor construction techniques may result in sewer with high rates of infiltration, thus creating treatment plant operation problems and shortening the effective life of the plant. No criteria exist regarding minimum standards of construction and materials. In addition, there are no criteria limiting the salinity of wastes that may be discharged into systems. Salinity is not reduced in normal treatment plant processes, and highly saline wastes are not suitable for wastewater reclamation purposes.

Option: Guidance could be issued specifying minimum construction and materials requirements for new sewer construction. The guidance could also contain maximum infiltration test criteria, and maximum recommended levels for salinity, boron, and other constituents that would impair the reuse of effluent. Such criteria would be applicable in instances where specific reclamation uses were determined to be otherwise feasible.

Status: EPA is employing the services of a contracted consulting firm to investigate criteria for an acceptable sewer use ordinance. When these results are available, consideration will be given to revising the regulations or issuing guidance accordingly.

Authority: §§201(g)(4) and 201(d)(1) of the Clean Water Act.

.

Environmental Protection Agency

Construction Grants for Wastewater Treatment Works

7. Training Facilities for Operators of Wastewater Reclamation/  
Reuse Facilities:

Issue: Specialized training facilities are needed for operators of wastewater reclamation/reuse facilities. Public acceptance of these projects is dependent on proper operation and maintenance.

Option: Guidance could be issued encouraging states to utilize §109(b) grant funds to construct and operate reclamation and reuse training facilities in addition to conventional system training facilities.

Authority: §109(b) of the Clean Water Act.



Environmental Protection Agency

State and Areawide Waste Treatment Management

Water conservation has been considered in the development of newly-proposed rules for implementing Section 208 of the Clean Water Act of 1977. These considerations are summarized below:

- . §34.1519-6(d) of the proposed Water Quality Management (WQM) regulations states that water conservation needs shall be considered in determining wastewater treatment facility needs.
- . A Section 102(d) report is currently being prepared... "which analyzes the relationship between programs under this Act, and the programs by which State and Federal agencies allocate quantities of water. Such a report shall include recommendations concerning the policy in Section 101(g) of the Act to improve coordination of efforts to reduce and eliminate pollution in concert with programs for managing water resources."
- . §§35.1519-5(a) & 35.1531-4(a) of the Water Quality Management Regulations provide for the incorporation of appropriate 208 plan measures into §402 permits. These may include water conservation measures.
- . §35.1531-4(b) of the Water Quality Management Regulations provide for a consistency judgement between the WQM plan and a facility plan. Factors that may be included in the

consistency judgement could include WQM plan water conservation measures.

§35.1531-4(b)(2) of the Water Quality Management Regulations requires the State in developing its annual priority list to consider the construction grant needs and priorities set forth in certified and approved State and areawide WQM plans. Thus the State is required indirectly to consider conservation measures, insofar as they are reflected in construction grant needs and priorities set forth in WQM plans.

Environmental Protection Agency

State and Areawide Waste Treatment Management

1. Effectiveness of Management Agencies:

Issue: 208 plans must recommend management agencies along wastewater treatment plant needs and priorities. Traditionally, construction grant applicants have been self-designated and have been special purpose agencies. This has resulted in a reluctance to address some issues, and an inability to implement or assure implementation of mitigation measures or non-structural aspects of facility plans, such as water conservation.

Option: §35.1519-5(c) of the WQM regulations could be revised to state that to be designated, a management agency must have adequate authority to address all facility planning issues and to implement or insure implementation of all mitigation measures or non-structural aspects of a construction grant project.

Authority: 208(c)(2)(A) of the Clean Water Act.

Environmental Protection Agency

State and Areawide Waste Treatment Management

2. Role of 208 Agencies in Determining Construction Grant

Priorities:

Issue: WQM guidance on the role WQM agencies may play in the development of construction grant priority lists could be expanded.

Option: Guidance could be issued to Water Quality Management agencies encouraging them to make recommendations to the States for the development of one and five year construction grant priority lists as follows:

- . agency or agencies (including joint powers agency) capable of addressing all anticipated 201 issues including water conservation, secondary impacts, and regionalization.
- . boundaries of the 201 study area so as to include all reasonable reclamation/reuse markets and consolidated projects.
- . priority of needed assistance where facilities had an enforceable requirements of an expansion of hydraulic capacity, priority would be assigned those where a water conservation program had been implemented. Where implementation of a appropriate mix of water conservation measures by the

municipality is determined by the 208 agency to be capable of satisfying the request for an increase in hydraulic capacity, then a project would not be placed on the priority list.

- . providing a list of issues, specific to each grantee and potentially including flow reduction and wastewater reclamation, that are to receive special attention in the facility plan and environmental assessment.

Authority: §208(b)(a)(A) and (B) of the Clean Water Act.

Environmental Protection Agency

State and Areawide Waste Treatment Management

3. Water Quality/Water Quantity Relationships:

Issue: A water quality inventory is prepared biennially, documenting a priority of water quality problems in each State. Guidance for the preparation of this report does not currently address the relationship between surface and ground water quality and quantity. In order to document these relationships, the scope of this report should be expanded.

Option: Regulations and guidance governing the water quality inventory report could be revised to require such a report to address the relationship between surface and ground water quality and quantity. Where existing or anticipated water quality standards violations are demonstrated to be caused or exacerbated by poor water resources management, this would be reported. This report would become the basis for the development of State strategies, water quality management plans, and the Construction Grant priority list.

Authority: §102(a) and 305(b)(1)(C) of the Clean Water Act

Environmental Protection Agency

State and Areawide Waste Treatment Management

4. Special Attention to Water-Short Areas:

Issue: Implementation of water conservation programs is somewhat dependent on public awareness of the relationship between water quality and water quantity, especially in water-short areas.

Option: Guidance could be issued to WQM agencies emphasizing the importance of determining the boundaries and the quantity/quality interrelationships of any water-short areas in their study areas. Water-short areas could be identified using the Water Resources Council Second National Assessment or other sources. Water-short areas would be identified as such if any demand requirement, including quality or timing, could not be met.

Guidance could be issued to Water Quality Management agencies addressing the development of water quality/quantity budgets for areas identified as water-short. These budgets would be used to evaluate the quality/quantity requirements of all water users, alternative water sources (including reclaimed wastewater), water conservation potential, and the adequacy of water quality standards (the necessity of quantity criteria). The results of these activities would be

disseminated via public information/education programs and could be used to condition 301(i) permits, to develop the water quality inventory, to develop the construction grant priority list, to determine Construction Grant Plans of Study, and to advise water rights/allocation agencies of periods and places where surface sources are being over utilized and that ground water might be relied upon (conjunctive use) to a greater degree. WQM/208 agencies could conduct such programs in non-water-short areas on a selective basis.

Authority: §208(b)(1)(A) of the Clean Water Act.



Environmental Protection Agency

State and Areawide Waste Treatment Management

5. Adverse Water Quantity - Water Quality Relationships:

Issue: Where a State water quality inventory or a §208 plan demonstrates an adverse water quantity-water quality relationship, preparation of a water conservation plan could address this issue.

Option: §35.1519-6 of the WQM regulations could be revised or guidance could be issued to state that where the State water quality inventory or §208 plan demonstrate an adverse water quantity-water quality relationship, water conservation should be addressed by preparing a water conservation plan. This plan would evaluate structural alternatives such as system rehabilitation to reduce losses, design criteria to minimize new losses, fixture and appliance standards for new structures and retrofitting, and industrial process modifications. It would also evaluate such non-structural measures as best management practices in agriculture and industry, rate structures, public information, and conjunctive surface and groundwater use.

Authority: §208(b)(1)(A) of the Clean Water Act.

Environmental Protection Agency

State and Areawide Waste Treatment Management

6. Water Conservation and Best Management Practices:

Issue: The Department of Agriculture may contract with owners and operators of rural lands for installation and maintenance of agricultural best management practices. Although such BMP's may be primarily used to control erosion and other water quality problems, if 208 agencies demonstrate a relationship between water quantity and water quality problems, then these funds might also be used to fund water conservation efforts or the contracts might be conditional on such actions.

Option: Guidance could be issued to WQM agencies encouraging them to specifically evaluate water conservation measures as part of the best management practices program. EPA could advise the Department of Agriculture of the need to specifically make such practices eligible and the need to provide for contract conditions, where necessary.

Authority: §208(j) of the Clean Water Act.

Environmental Protection Agency

State and Areawide Waste Management

7. Emphasis on Water Conservation:

Issue: WQM program guidance does not have any specific reference to water conservation although existing regulations are broad enough to support the eligibility of work in this area.

Option: The Water Planning Division could issue guidance on the subject of water conservation that: (1) indicate, subject to local priorities and with emphasis on water-short areas:

- . support, in water-short areas, for 208 agencies to assist and encourage the implementation of water conservation programs.
- . the need to address the relationship between the water conservation elements of WQM plans and water and sewer public works programs.

(2) transmit:

- . guidance on the technical and institutional aspects of developing and implementing water conservation programs.
- . case histories/examples of existing 208 water conservation efforts.

Authority: §§106(a) and 208(b)(2) of the Clean Water Act.

Environmental Protection Agency

State Pollution Control Program Grants

1. Funding Eligibility of Water Conservation Programs:

Issue: The proposed water quality management regulations do not explicitly state the costs for development and implementation of a water conservation program would be eligible for Section 106 program grant funding when this is determined to be appropriate.

Option: Section 35.1511-4(c) of the proposed regulations could be revised or guidance issued to explicitly state that the planning and implementation costs of a water conservation program (including public education and information) would be eligible §106 grant costs.

Authority: §106 of the Clean Water Act.

Environmental Protection Agency

State Pollution Control Program Grants

2. Coordination Between State Water Quality and Water Resources

Agencies:

Issue: EPA grant funds are generally provided to water quality agencies in each state and not to water resources agencies. If the water conservation benefits of 208 and 201 programs are to be fully achieved, more coordination between such agencies must occur.

Option: EPA §106, §205(g) and State-EPA agreement guidance could encourage coordination between state water quality and water resources agencies. Specific areas that might be addressed include:

- . consideration of the relationship between water quantity and water quality water in state water development plans.
- . consideration of water quality-quantity budgets in water rights decisions and allocations.
- . consideration of water conservation as a specific goal in state water quality and water resources programs.
- . preparation of water conservation plans in water-short areas.
- . allocating water, including reclaimed wastewater,

on the basis of quality as well as quantity requirements.

- . using urban storm water to supplement local water supplies, where appropriate.

Authority: §106(a)(2), 205(g)(2), 303(e)(3)(E) of the Clean Water Act.

Environmental Protection Agency

State Pollution Control Program Grants

3. Water Quality/Water Quantity Relationships:

Issue: Guidance for the development of water quality standards does not address the relationship between water quality and water quantity. Because excessive depletion of stream flows may directly cause violation of water quality standards (temperature, salinity intrusion), may magnify the effect of natural pollution sources, or may make infeasible the attainment of water quality standards despite control of point and non-point pollution sources, this relationship should be addressed. The development of water quantity criteria in support of water quality criteria and as part of water quality standards would cause a consideration of this relationship by water resources agencies and would insure their support of water conservation programs so that available supplies might be extended.

Option: §303, §208 and §301, regulations and/or guidance could be modified so that, in water-short areas, State 106, 208, 303 and 305(b) agencies would relate water quality to water quantity and determine where water quantity criteria are necessary to protect designated beneficial uses. These agencies could be encouraged

to develop and adopt such criteria which would ultimately be subject to approval by EPA. Such standards would be enforced by the State and would assist in the maintenance of minimum flows and improved management of available water.

Authority: §208, §301 and §303 of the Clean Water Act.



Environmental Protection Agency

Water Pollution Control Regulations - NPDES Permit Program

1. Including Water Conservation Measures in NPDES Permits:

Issue: Provide incentive. Water Quality Management plans may develop a number of water conservation measures applicable to industry, or municipalities but may have problems with insuring implementation. The §402 NPDES program provides an enforceable means of insuring implementation of water conservation measures.

Option: Guidance could be issued that would provide for the inclusion of water conservation measures contained in approved water quality management plans or facility plans in NPDES permits. This could be done where such measures would minimize the likelihood of spills, leaks, runoff, waste disposal problems or would improve treatment plant efficiencies or cost-effectiveness.

Authority: §208(c) of the Clean Water Act.

Environmental Protection Agency

Water Pollution Control Regulation -- NPDES Permit Program

2. Waste Disposal Requirements:

Issue: Same EPA regulations establish limitations upon discharges in terms of allowable concentrations of pollutants. These provisions may act as disincentives to water conservation and encourage dilution as a means of addressing such limitations.

Option: Where possible, waste disposal requirements should express any limitations in terms of pollutant mass and not concentration.

Authority: §§301 and 304 of the Clean Water Act.

Environmental Protection Agency

Water Pollution Control Regulation -- NPDES Permit Program

3. Water Conservation and Effluent Guidelines:

Issue: Insure that the best measures and practices developed through the effluent guidelines process for industrial dischargers include consideration of water conservation.

Option: §301(b)(2)(A) of the Act states that effluent limitations shall require best available technology economically achievable for non-Publically-Owned Treatment Works. §304(b)(2)(B) requires the Agency to develop regulations specifying the factors that are to be used to determine the applicable best measures and practices. The Agency could specify water conservation as one of these factors.

Authority: §§301(b)(2)(A) and 304(b)(2)(B) of the Clean Water Act.

Environmental Protection Agency

Water Pollution Control Regulation - NPDES Permit Program

4. Industrial Discharges to Publically-Owned Treatment Works:

Issue: Industries who will or are discharging to publically owned treatment works (POTW's) that are unable to process the industrial waste are provided an opportunity to request an NPDES permit schedule extension. The Act provides that the permit issuers may condition the permit upon water conservation if it is found necessary.

Option: Where EPA or, in the case of delegation, the State, determines that POTW operation would be improved by a reduction in flow from an industry, or that the existing industrial treatment works would be improved by a reduction in flow, or that the hydraulic capacity of either the industrial or the POTW would otherwise be exceeded, or that a reduction in flow would otherwise be necessary and cost-effective for the modified POTW, then the permit for the industry could reflect requirements for a plan and schedule for the development and implementation of a water conservation program.

Authority: §301(i) of the Clean Water Act.

Environmental Protection Agency

Water Pollution Control Regulation - NPDES Permit Program

5. Water Conservation to Assist in Control of Toxic Wastes:

Issue: One method of industrial toxics control is to reduce the volume of fluid in which toxics are contained. Industrial water conservation measures that effect toxics control may be included as conditions of §402 permits.

Option: In implementing §304(e) of the Act, toxics control by means of industrial water conservation permit requirements should be considered. Such requirements would have to be developed by industrial class and by process and would have to be flexible enough to be applied in a site specific fashion. These requirements would be included in a permit where a reduction in process fluid or effluent volume would reduce the likelihood of toxics spillage, leakage, runoff or waste disposal problems.

Authority: §304(e) of the Clean Water Act.

Environmental Protection Agency

Water Pollution Control Regulation - NPDES Permit Program

6. National Standards of Performance:

Issue: If the national standards of performance were to include "effluent reduction", water would be conserved.

Option: The §306(a)(1) definition of a standard of performance is "a standard for the control of the discharge of pollutants which reflects the greatest degree of effluent reduction..." EPA could review standards of performance to insure there was consideration of water conservation in each.

Authority: §306(a)(1) of the Clean Water Act.

Environmental Protection Agency

Water Pollution Control Regulation - §404 Dredge and Fill Permits

Issue: The basic requirements of 404 Permits and §208(b)(4)(B) regulatory programs might be used to promote water conservation. Many water resource projects, diversions, and stream flow modifications are subject to these permits.

Option: Explicit guidance (or regulations, if needed), could be developed to ensure that water conservation is taken into account by the Corps of Engineers in issuing §404 Permits, and by the States in §404 Permits and developing §208(b)(4)(B) regulatory programs.

Authority: §§404 and 208(b)(4)(B) of the Clean Water Act.

Environmental Protection Agency

Clean Lakes Grant Program

Status: There are no significant disincentives to water conservation in the Clean Lakes Grant Program. No significant incentives could be provided through this program.



Environmental Protection Agency

Safe Drinking Water Programs

Status: The Safe Drinking Water Act Public Water System Supervision (PWS) and Underground Injection Control (UIC) Grant Programs are explicitly limited by the statute to the protection of public health. The statute and regulations for these programs were reviewed to determine if the PWS program could effect water conservation through public education efforts and expansion of the state facility design review activity to include enforcement of water conservation design criteria, such as maximum system leakage levels. A review of the statutes' language has resulted in a recommended elimination of these options.

Based again upon the statutory goal for the UIC program of protecting underground sources of drinking water, no viable options were found in the UIC program for providing incentives for water conservation. As is mentioned elsewhere, it is recommended that, if feasible, any injection limitations be expressed on a mass rather than on a concentration basis to ensure that dilution is not used as a means of compliance.

Environmental Protection Agency

Adequacy of Drinking Water Supplies - Coordinated Water Supply and  
Wastewater Planning

Issue: Section 1442(c) of the Safe Drinking Water Act and  
Section 516 of the Clean Water Act requires EPA to submit  
a report to Congress within the next two years to: (1)  
assess the availability of adequate and dependable supply  
of drinking water, and to (2) examine means to require  
coordinated water supply and wastewater planning as a  
condition of construction grants.

Option: None required.

Status: A report is being prepared which will respond to the  
requirements of the Acts and, in particular, will evaluate  
means, including the availability and use of methods to  
conserve water or reduce demand.

Authority: Section 1442(c) of the Safe Drinking Water Act.  
Section 516 of the Clean Water Act.

Environmental Protection Agency

Research on Water Conservation

Issue: Section 104(o) of the Act states that the Agency shall conduct research and investigations on water conservation devices, incentives, pricing policy, etc. to cause sewage flow reduction. Section 105(e)(1) authorizes the Agency to conduct Research and Development on alternative methods of reducing agricultural discharges. Section 105(d)(2) requires the Agency to conduct Research and Development on alternative methods of wastewater reclamation and reuse. Section 214 requires the Agency to conduct a public information and education program on sewage flow reduction, recycling and reuse of wastewater and use of land treatment.

Option: Assign §104(o), 105(e)(1), and 214 requirements a higher priority, especially:

- . conducting studies quantifying the benefits of agricultural, industrial and municipal water conservation measures; especially differentiating the benefits of reducing withdrawals vs reducing consumption.
- . conducting studies establishing, for each industry subject to §302 provisions, available water conservation measures, the effects of such water conservation on pretreatment and municipal treatment efficiencies, and feasible levels of wastewater flow reduction resulting

from the implementation of such measures.

- . developing wastewater effluent quality requirements for industrial, agricultural, and landscaping reuse, and groundwater recharge.
- . conducting seminars which include case studies of municipalities, industry and agriculture where water conservation programs have been implemented, with associated costs, benefits and impacts.
- . conducting studies on the degree of industrial reuse of water in relation to the availability or value of water and to the cost of waste treatment.
- . conducting studies on the costs and benefits of water system metering as a basis for establishing user charge system surcharges, increasing block rate structures or peak use surchargers.

Identify a lead office within the agency that is responsible for insuring and monitoring implementation of water conservation.

Authority: Section 104(o), 105(d)(2), 105(e)(1) and 214 of the Clean Water Act.

Environmental Protection Agency

Research on Water Conservation and Control of Thermal Discharges

Issue: Dischargers may not fully consider the consumptive aspects of waste stream cooling technologies unless information on alternative technologies is developed.

Option: Section 104(t) of the Act requires the Agency to "conduct continuing comprehensive studies of the effects and methods of control of thermal discharges. In evaluating alternative methods of control the studies shall consider... (2) the total impact on the environment, considering not only water quality but also ....effective utilization and conservation of fresh water..." The Agency could insure that such studies specifically address water conservation.

Authority: §104(t) of the Clean Water Act.

Department of Housing and Urban Development

Community Development Block Grant Program (CDBG)

Urban Development Action Grants (UDAG)

Small Cities Discretionary Grant Program

1. Eligibility of Water Conservation Activities:

Issue: HUD regulations for these programs do not specifically provide for the eligibility of water conservation activities.

Option: HUD could revise Section 570.201 (Basic Eligible Activities) of the CDBG Program regulations to provide for the eligibility of water conservation activities.

Department of Housing and Urban Development

Community Development Block Grant Program (CDBG)

Urban Development Action Grants (UDAG)

Small Cities Discretionary Grant Program

2. Water Conservation Plans:

Issue: Communities currently receiving HUD assistance are not currently required to have a water conservation plan.

Option: HUD could request certification or assurance that water conservation plans would be adopted in those instances in which HUD provides funding for water supply, water treatment or water collection systems.

Department of Housing and Urban Development

Community Development Block Grant Program (CDBG)

Urban Development Action Grants (UDAG)

Small Cities Discretionary Grant Program

3. Water Conservation in Housing Rehabilitation and New

Construction:

Issue: HUD's Minimum Property Standards do not currently include standards for water conservation devices and plumbing requirements for water conservation.

Option: Where substantial rehabilitation and new construction is undertaken through the use of block grant funds, HUD will implement program changes and recommendations resulting from the Housing Task Force on Water Conservation.



Department of Housing and Urban Development

Community Development Block Grant Program (CDBG)

Urban Development Action Grants (UDAG)

Small Cities Discretionary Grant Program

4. Consistency of HUD Requirements with those of Other Federal Agencies:

Issue: HUD Block Grant funds are often used to supplement funds received from other Federal agencies. If the requirements of the agencies differ significantly, it may be difficult to efficiently administer the programs to accomplish the intended objectives, including water conservation.

Option: Where block grant funds are used to match funds to undertake water conservation activities principally funded by other agencies (such as EPA, EDA, FmHA), the guidelines of those agencies are to be followed to the extent that the agency guidelines are not inconsistent with statutory authority for HUD programs.

Department of Housing and Urban Development

Comprehensive Planning Assistance Program (701)

The Comprehensive Planning Assistance Program (701) is designed principally to assist State, local and regional governments in upgrading their comprehensive planning and executive management capabilities. Given the current funding level and statutory priorities, no proposals are being made at this time with respect to this program.

United States  
Environmental Protection  
Agency WH-556

Official Business  
Penalty for Private Use  
\$300

Special Fourth-Class Rate  
Book  
Postage and Fees Paid  
EPA  
Permit No. G-35

---

Washington DC 20460