NEW JERSEY STATE EPA AGREEMENT

FY 81 UPDATE

New Jersey/USEPA Region II
Water Resources Management Agreement

FY 81 Update

DEP Docket No. 041-80-07

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1. INTRODUCTION

SUMMARY OF MAJOR ISSUES

This document constitutes the first update of the New Jersey State/EPA Agreement (SEA) between the Commssioner of the New Jersey Department of Environmental Protection (DEP) and the Regional Administrator of the United States Environmental Protection Agency (EPA). The purpose of the Agreement and the annual update is to ensure that the various water resource management activities undertaken either directly by or through funding from the EPA, DEP and/or local government entities in New Jersey, represent a logical and cohesive program which reflects the major environmental issues in the State.

The FY'79 document outlined strategies for meeting water quality and water supply goals in the State of New Jersey over a five-year period, and established priorities for directing funds towards those issues envisioned as being the most immediate topics of concern. The stategies were not intended as a final commitment to specific outputs, but rather as a statement of policy direction. The annual updating process will ensure that programs undertaken are, in fact, responsive to the current major resource problems in the State of New Jersey.

Accordingly, this document updates basic points of agreement between the agencies based upon a reevaluation of the issues and strategies set forth in the original Agreement and accomplishments to date. The update document also attempts to integrate the water resources problems with cross cutting policy and managerial issues by restructuring the original twenty-four issues into major elemental categories and updating the strategies and activities accordingly.

Water Quality Management Planning

Although a great deal of money has been spent and much has been accomplished in Water Quality Management Planning (WQMP) in New Jersey, much remains to be done. There is a need to develop a single plan for the entire State to show which recommendations in the State need to be implemented, and set the direction for future planning efforts.

Initial planning efforts have produced evidence that non-point sources contribute a major share of many serious pollutants to our lakes and steams. Without effective controls, non-point source pollution will prevent achievement of our 1983 goal of fishable and swimmable waters. There is little doubt that non-point sources have a direct and serious impact on the uses many of our citizens make of water. For this reason, 208 funded activities from FY'81 and beyond will be geared toward non-point source activity.

Now that the initial planning is complete, EPA, DEP, and where appropriate the 208 areawide agencies must continue to implement the decisions made in the planning process. In light of the level of effort exerted by the various areawide agencies in developing expertise and intimate knowledge of the nature of problems in their areas, it would be wise to utilize these resources to the fullest extent by involving them in the future efforts of this program. These efforts will consist of filling gaps in the plans, especially for non-point source controls. EPA will also continue to use the 208 grant program to augment the existing point source control framework with an equally complete non-point source framework. Based on the problems identified in the initial plans, the highest non-point source priorities are stormwater runoff, groundwater contamination, and the protection of environmentally sensitive areas.

With improved program management and a focus on non-point sources in FY'81-83, an orderly phase-out of the 208 grant program will be completed and replaced with a restructured WQMP program in FY'83 and beyond.

In the next few years, three basic principles will be stressed to ensure the success of the WQMP program. First, EPA and DEP will continue to stress problem-solving, with an emphasis on putting operation control programs in place. Second, EPA and DEP will develop and implement a management program to maximize the effectiveness of limited WQMP resources. In the future, EPA Region II will negotiate customized work plans for State water quality programs, provide technical assistance, and evaluate the process the State made against these work programs. Region II will also negotiate the location and direction of 208 funded projects with the State and designated areawide agencies, approve 208 work programs, fund and manage the projects, and approve changes in WQMP plans that may result. With respect to Section 208 grants, the State will set the overall policy framework, conduct WQMP planning in non-designated areas, and oversee the work of the areawide agencies.

THE FY80 WORK PLANS FOR 208-FUNDED ACTIVITIES ARE EMBODIED IN THIS DOCUMENT, AND SHOULD BE VIEWED IN CONJUNCTION WITH THE FY 81 PROJECT DESCRIPTIONS FOUND IN THE RESPONSIVENESS SUMMARY.

Toxics and Hazardous Substance Control

In New Jersey, groundwater has been contaminated and wells shut down. Toxics in urban runoff, landfill leachate, illegal dumping, illegal discharges, and accidental spills have caused fish kills. Many water supply purveyors are required to treat water to high levels in order to make their water potable. An integrated/coordinated control plan is proposed to protect the public and the environment from exposure to toxic and hazardous substances. Highlights include:

- Establishment of procedures to set limits for toxic and hazardous substances, develop a permit program for wastewater discharges to ground and surface waters, and develop a pretreatment program to limit the discharge of toxic substances into POTW's.

- Implementation of Subtitle C of the Resource Conservation and Recovery Act (RCRA) to provide a State administered hazardous waste program to include enforcement action, permitting activities and a hazardous substance manifest system.

- Development of a multi-faceted hazard management program.

- Establishment of a statewide hazardous residual management facilities plan utilizing 201 construction grants and the industrial pretreatment program.

Groundwater Management

More than fifty-five percent of the State is dependent on groundwater as a source for potable water and projected water use indicates that surface water supplies alone cannot meet the demand. The following are highlights of the recommended groundwater management program:

- The development of groundwater quality standards to establish a basis for groundwater quality management.

- The development of a regulatory program under New Jersey's Water Pollution Control Act to control pollutant discharges to groundwater.

- The development of a plan for classifying aquifers (i.e., prime aquifer recharge areas) as a basis for protecting aquifers from pollution, and assuring their continued function as sources of water supply and base flow in surface waters.

- The development of a groundwater discharge permit as part of the NJPDES Program during the NPDES assumption effort.

Non-point Source Control

Initial planning efforts have produced evidence that non-point sources contribute a major share of many serious pollutants to lakes and streams. Without effective controls non-point source pollution will prevent achievement of our 1983 goal of fishable and swimmable waters. There is little doubt that non-point sources have a direct and serious impact on the uses many of our citizens make of water. Highlights of the non-point source control plan are as follows:

- Development of a coordinated State, County and local agency stormwater management program to ensure that water quality, groundwater recharge and flood control objectives will be considered in future development.

- Implementation of a management program for control of runoff from agricultural and silvicultural areas.

- Enforcement of mandatory erosion controls for construction activities, and expansion of the State Soil Erosion and Sediment Control Act to include public works projects (e.g., road construction) and surface mining activities.

- Enforcement of programs for new disposal facilities for solid and hazardous waste (RCRA integraton).

- Management of septic system design, installation and maintenance to protect water quality.

Point Source Control

The objectives of the point source program are to control existing point source discharges and, where needed, upgrade wastewater treatment facilities to meet the goals of fishable and swimmable waters where attainable, and to preserve existing water quality and water uses. Highlights of the point source control program are as follows:

- Clarification of requirements for wastewater disposal through spray irrigation.

- Comprehensive statewide sludge management strategy to deal with the 1981 ocean dumping deadline and to reduce the volumes of sludge entering overburdened landfills.

- A general strategy for statewide industrial pretreatment including management agency funding.

- Clarification of wasteload allocation procedures for setting baseline allocations for receiving waters as related to Advanced Wastewater Treatment/Advanced Sewage Treatment (AWT/AST) justification and point versus non-point source pollution abatement coordination.

- Development of a coordinated EPA/State, Innovative/Alternative (I/A technology program to encourage increased cost-effective design and energy, and other resource recovery and conservation as related to municipal treatment works.

- Expansion of the small wastewater disposal program to include small community initiatives in addition to on-site subsurface disposal systems.

Growth Management

Future urban and suburban development will influence water quality in many ways, including increased need for sewers, septic systems or other means of waste disposal and increased storm runoff with resultant flooding and water pollution potential. The management of growth is therefore an important aspect of water resource management strategy. Highlights of the growth management plan include:

- Development and implementation of a single series of growth projections for uniform application to water supply, air supply, and solid waste planning and capital investment.

- Development and implementation of guidelines for the evaluation of environmentally sensitive areas in 201 facilities planning.

RCRA Authorization

Implementation of the comprehensive hazardous waste program under RCRA is EPA's number one national priority and authorization for the State to operate the RCRA program in lieu of EPA is part of the national strategy. NJDEP has developed a strategy to actively pursue authorization and will concentrate on achieving this goal by

- Assuming interim authorization and operating a hazardous waste program with EPA assistance.

- Evaluating New Jersey's hazardous waste program to determine adequacy of resources, permit program, compliance monitoring, enforcement, manifest, scope of waste, facility standards, statutes and regulations.

- Developing a plan for full authorization as part of application for interim authorization.

- Developing authorization application.

Section 205(g) Construction Grants Delegation

New Jersey has received partial delegation through a formal agreement between the Regional Administrator and the Commissioner but, there is a need for NJDEP to actually assume substantial delegation and to implement an effective organizational structure.

The strategy has been modified to accelerate substantial delegation and to enhance interagency and interdepartmental communications which will improve overall management of the Construction Grants Program and will:

- Implement a re-organized NJDEP staff structure.

- Establish a program for attracting and retaining qualified personnel.

- Implement detailed overview and program evaluation.

NPDES Assumption

An interim agreement has been reached, by which NJDEP will develop NPDES industrial permits, municipal permits and pretreatment compliance schedules. Data acquisition, regulatory/program development and permitting strategies have been developed to meet such objectives for this cross cutting issue and will include:

- Affording NJDEP the opportunity to develop the necessary expertise for actual assumption.

- Training programs to develop NJDEP staff capability.

- Development of final regulations for program assumption.

- Increased technical staff/resource capabilities to acceptable levels for program assumption.

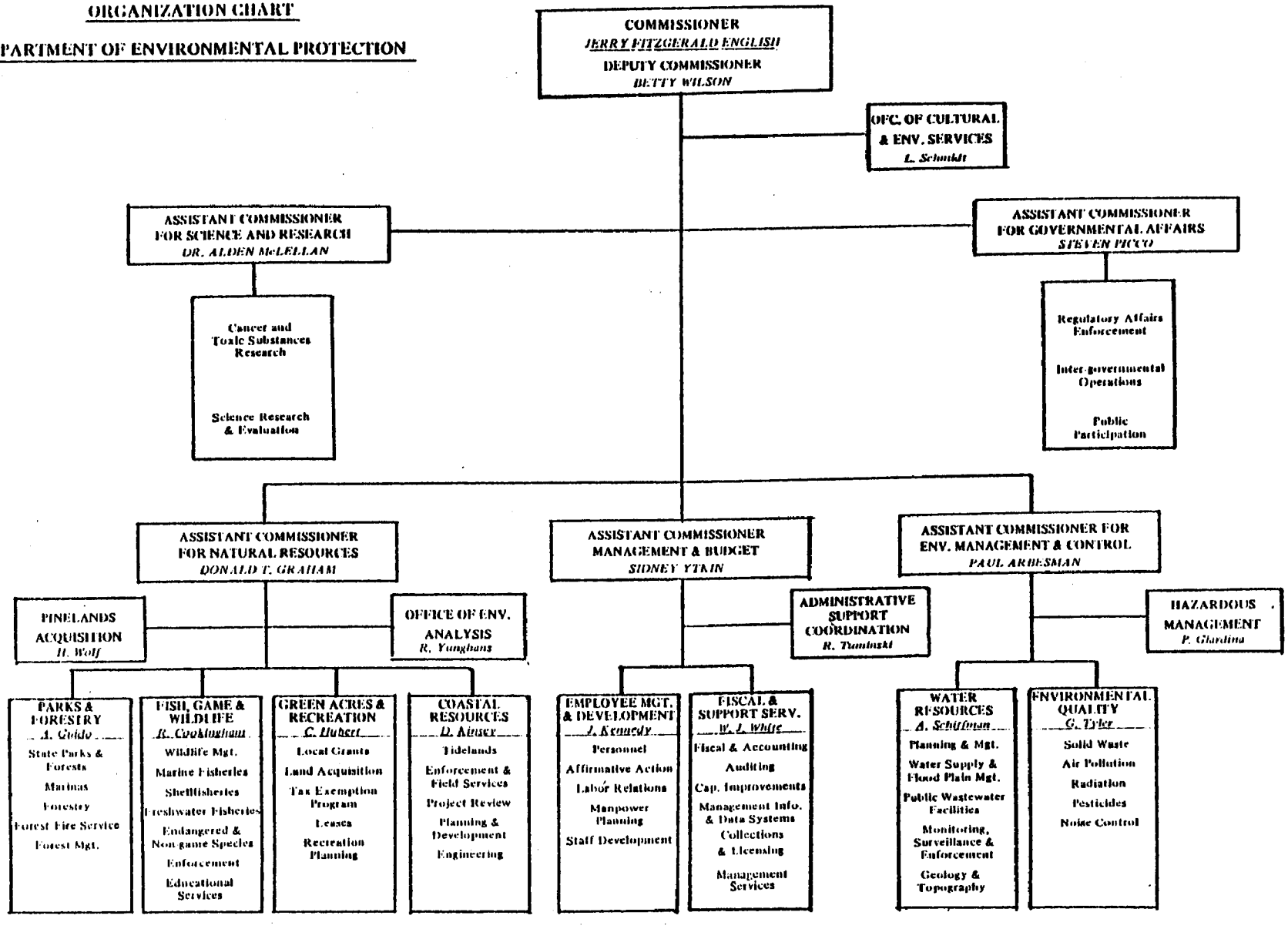
- Formalization of interim agreements into working agreements.

DEP/EPA Organization

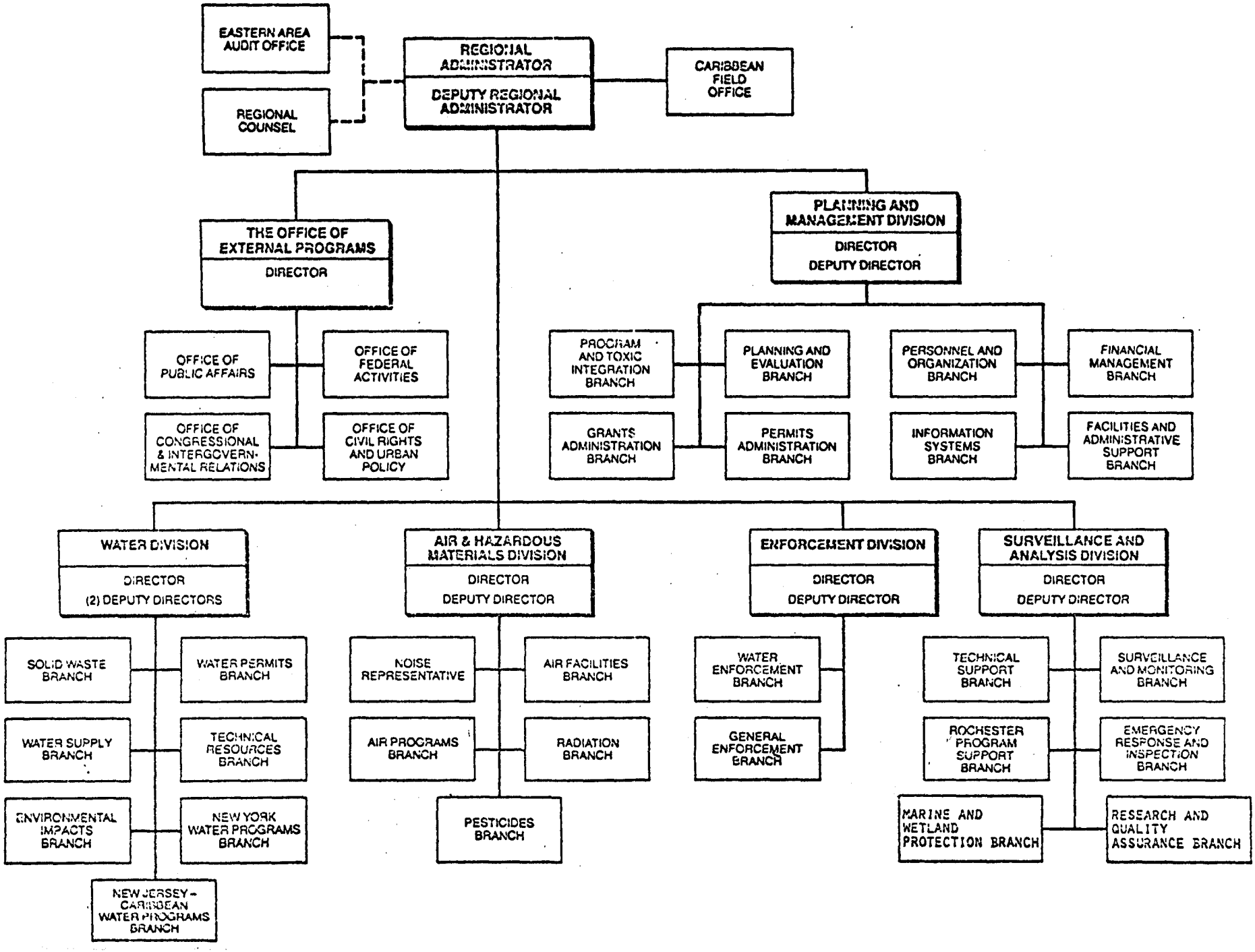
Both DEP and EPA are currently being reorganized to consolidate activities and realign staffing efforts to implement new programs and strategies and to increase the efficiency of current efforts. The current charts (see below) are not up to date, and will not intended to be redrawn until final changes are made.

ORGANIZATION CHART

DEPARTMENT OF ENVIRONMENTAL PROTECTION



ENVIRONMENTAL PROTECTION AGENCY
REGION II
ORGANIZATION CHART



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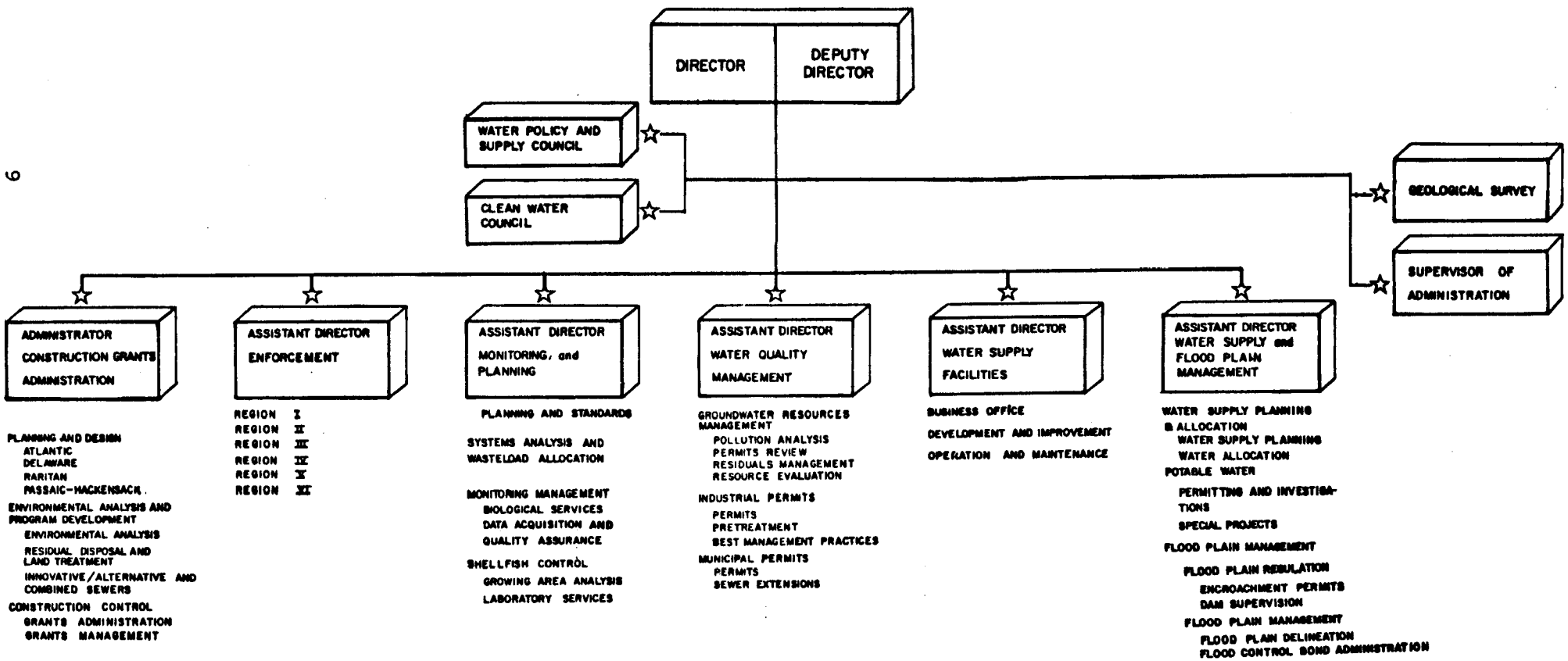

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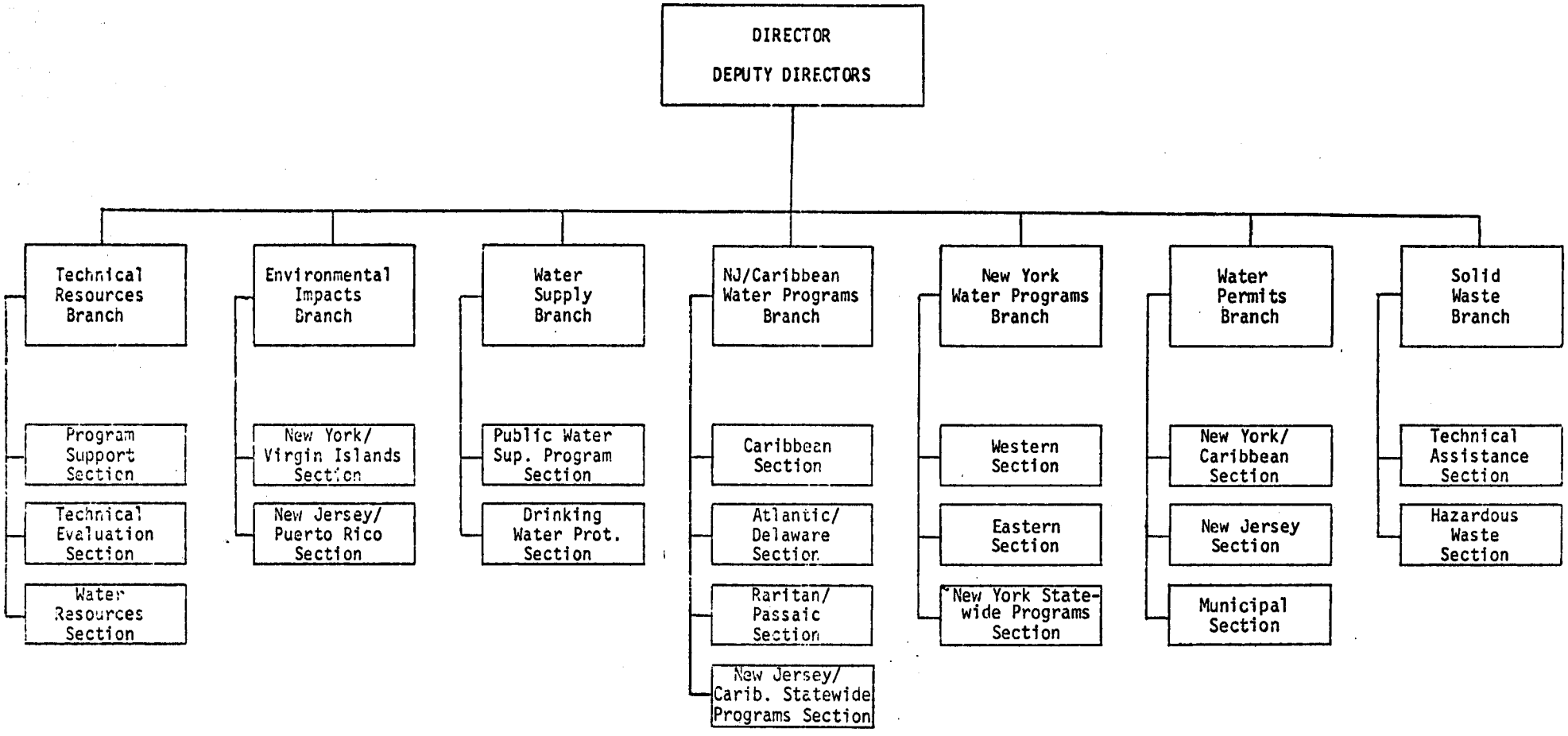
ENVIRONMENTAL PROTECTION AGENCY
WATER DIVISION
ORGANIZATION CHART



2. STRATEGIES

2.1 Water Quality Management Program

Goal

The Water Quality Management Program (WQMP) is one of several EPA programs contributing to the achievement of the water quality goals of the Clean Water Act, including "protection and propagation of fish, shellfish, and wildlife and provision of recreation in and on the water by 1983 wherever attainable...." Specifically the WQMP program, the goal is:

> To assist State and local agencies and the public to develop and implement a decision-making process for solving point and nonpoint source pollution problems to meet the water quality goals of the Act.

Purpose

To provide strategic direction for WQMP programs and assist Region II, in contributing to the development of State strategies, State/EPA Agreements, and work plans in FY 81.

Background

With improved program management and a focus on nonpoint sources in FY 81-3, EPA plans to bring about an orderly phase-out of the 208 grant program, and replace it with a restructured WQM Program in FY 83 and beyond.

In the next few years, EPA will continue to stress problem solving, with an emphasis on putting operational control programs in place. Second, EPA will build an information base which will provide future grantees with information they need to control nonpoint sources effectively and efficiently. Third, EPA will develop and implement a management program to maximize the effectiveness of limited WQM resources.

The WQM program is to assist Region II, states, local agencies, and the public in developing a decision making process for solving point and nonpoint source pollution problems to meet the water quality goals of the Act. To assist in the accomplishment of this goal EPA Region II will award FY 81 grants under Section 106 and 208 to Region II States, interstate and areawide agencies.

Elements of Strategy

1. Development of a Water Quality Management Framework.
2. Completion of 208 Program by focusing on nonpoint sources.
3. Development of a Region/State Water Quality Management Information System.
4. Involvement of local agecies in the State's WQM program.

1. Water Quality Management Framework

The Water Quality Management Framework is a systematic approach to managing the WQMP program. The framework identifies the interrelationships of the various sub-programs making up the WQMP program and builds the foundation for an integrated program from separate elements of the law (e.g., Section 106, 208 and 303(e) of the Clean Water Act).

The WQMP process and framework consists of steps which comprise both the regulatory requirements and the demands of good process management for the WQMP program as a whole. The steps are:

- Assessment of the water quality problems. The assessment forms the basis of selecting the WQMP program priorities and activities.

- Development of strategies. Strategies are a culmination of a management process in which goals, objectives and priorities are set and a cohesive sequence of activities are set forth to maximize the use of resources to develop and implement solutions to the water quality problems.

- Development of the WQMP portion of the SEA. The State/EPA Agreement documents the mutual commitment of EPA and the State to solve priority environmental problems.

- Development of work programs. The work program is the most important tool the Project Manager can use to manage the WQMP program.

- Assistance in the implementation of WQMP plans and execution of work programs. The assistance that Regional Offices provide agencies is the key to make the WQMP process work - the development and implementation of WQMP plans, effective and efficient administration of operation control programs and the improvement in water quality.

- Evaluation of progress. Evaluation establishes the feedback loop in the WQMP problem-solving process to keep management, planning and implementation moving in the right direction.

- Region II will move from individual grant programs into a consolidated WQMP process which inter-relates all aspects of the problem solving process - water quality standards, problem assessment planning, management, evaluation, and enforcement.

- The framework for the State will be promoted by Region II for better planning and management and for coordination and intergration of Nonpoint Source (NPS) controls with the point source program (201), and other programs such as the Resource Conservation Recovery Act (RCRA), the Safe Drinking Water Act (SDWA), etc. The long term "1990" construction grants strategy will attempt to ensure a consistent approach to the total water quality problem. Region II will encourage input into the design of the restructured program from the State, areawide agencies, local agencies and the public.

EPA Grant Assistance:

106 Grants	- provides funds to assist States in the operation and management of water pollution control activities such as administration, compliance, enforcement, water quality standards, monitoring, emergency response, development of a single statewide WQM Program, etc.
201 Grants	- provides funds for the planning, design, and construction of municipal wastewater treatment facilities incorporating I/A technology, individual systems, recreation and open spaces, energy requirements, pre-treatment etc.
205 (g) Grants	- provides the authorization for reservation of a portion of the allotment made to each State for costs of administration.
208 Grants	- provides for the development of operational control programs for nonpoint sources such as urban stormwater runoff, groundwater contamination, agriculture, silviculture, on-lot disposal systems, construction runoff, etc.
314 Grants	- provides funds for Clean Lakes Program
RCRA Grants	- provides funds for solid waste management planning and hazardous waste management program planning and implementation and inventory of open dumps.
SDWA-Sec 1421 UIC	- provide funds for State programs for the adoption and enforcement of underground injection control programs for protection of groundwater.

SWDA-Sec. 1443 PWS - provide funds for adoption and enforcement of State drinking water regulations and Public Water System supervision.

SDWA-Sec. 1444 State Grants - provide funds to assist in the development and demonstration of programs which will demonstrate a new or improved method, or technology for providing a dependable safe supply of drinking water to the public.

Special Studies - provide funds to assist in the development of projects which will investigate and demonstrate health implications involved in reclamation, recycling, and re-use of wastewater.

The following major objectives/activities are to ensure the development of a WQMP framework:

- Region II provides guidance on "total" WQMP program.
- State comments on Region II's guidance.
- State develops initial framework for State's WQM program.
- Region II comments on proposed framework.
- State designs specific elements of WQMP program.
- Region II and State use WQMP to integrate program strategies.

STATE WQMP PROGRAM

FUNDABLE ACTIVITIES

Activity*	Funding Source
CONSTRUCTION GRANTS MANAGEMENT	106 to the extent not fundable under 205(g)
PERMITS (includes NPDES, 404 and other State Permit Programs)	106, 205(g)
Administration	106, 205(g)
Compliance Evaluation	106, 205(g)
Enforcement	106, 205(g)
GENERAL AND POINT SOURCE PLANNING	106, 208, 205(g)
Water Quality Standards	106
Wasteload Allocations	106, 201, 205(g)
Municipal Facilities Planning	106, 201, 205(g)
208 Dredge and Fill Regulatory Programs	208, 106, 205(g)
NONPOINT SOURCE PLANNING AND IMPLEMENTATION	208, 106
MONITORING	
Equipment and Facilities	106
Ambient and Compliance Monitoring	106,
General/Point Source Intensive Surveys	106
MUNICIPAL FACILITIES OPERATIONS AND MAINTENANCE TRAINING	106, 205(g)
INTENSIVE CAUSE-EFFECT RELATIONSHIP MONITORING FOR RCWP PROGRAMS	106,208
EMERGENCY RESPONSE	N.J. Spill Compensation & Control Act
PRETREATMENT	106, 205 (g)
314 CLEAN LAKES	314
OTHER PROGRAM ACTIVITIES	106, 208

* Refinement of elements shown in 40 CFR 35.1513-5(c)(1-18)

2. Completion of WQMP Program

Completion of WQMP program and the movement from nonpoint source planning to nonpoint control programs will be the aim of future 208-funded activities.

Because initial 208 activities focused on point source problems, there is a need to fill the gap in the WQMP plans involving nonpoint sources. Region II's strategy is to build a strong technical base for nonpoint source control before 208 grants are phased out. It is anticipated that there will be no 208 grants after FY 83.

Planning in FY 81-83 for 208 will be for site - specific problem solving projects to develop implementable cost effective controls for nonpoint source problems. These projects must lead to solving water quality problems and at the same time provide a basis from which to transfer the results and apply them regionwide and nationwide.

Based upon the analysis of Region II initial 208 plans, and consistent with national 208 strategies, FY 81 activities in Region II will focus on the development of operational control programs for nonpoint sources of pollution. In Region II the emphasis will be on: urban stormwater runoff, groundwater contamination, agriculture, construction runoff, non-coal mining, hydraulic/hydrologic modifications, landfill leachates, and financial management for nonpoint source controls.

There are other water quality management priorities in Region II which need to be addressed using other funding sources such as 201, RCRA, SDWA, etc. These other priorities include municipal discharges, industrial discharges, residual waste, and small wastewater systems including septics.

The following major objectives/activities will be pursued to ensure completion of the 208 program:

- Manage statewide programs and oversee the areawide programs to bring about implementation of certified and approved WQMP Plans.

- Complete state certification requirements for all initial plans.

- Develop a statewide WQMP in order to incorporate statewide elements of both the designated and undesignated WQM Plans into one comprehensive document.

- Transfer results of various areawide projects for statewide application.

- Initiate action to change the designation status of areawide planning agencies where implementation of the plan is not occurring or where other evidence of capability is lacking.

- Delegate authority for planning activities and pass funds through to areawide or local agencies.

- Institute an orderly transition to revise WQMP program by moving from individual grant programs into a consolidated WQM process which interrelates water quality standards, problem assessment, planning, management, evaluation and enforcement.

- Development of work programs for continuing planning funding under section 208 containing measurable outputs leading to technically, politically and financially implementable solutions for identified high-priority problem areas.

- Secure funding for management practices addressing agricultural pollution under the Rural Clean Water Program (208(j)).

- Document project planning, management and implementation needs for a five year period (FY 81-85).

3. Development of a Regional and State Water Quality Management Information System (WQMIS).

   In FY 81, Region II will promote the building and transferring of an information base for nonpoint source control. State and areawide 208 grantees must document, in order to facilitate Region II transfer within the Region, the findings of the various projects funded in FY 81. This will be accomplished through annual Regional and State WQM conferences.

   The FY 81 strategy is to minimize duplication in nonpoint source planning efforts by not approving projects within the region which are of similar nature or have aspects which are duplicative.

Development of a State WQMIS. The system will be designed to:

- Provide information for regional technology transfer and public information programs.

- Develop expertise at State and local levels regarding new priority problem areas.

- Ensure the incorporation of recently developed information and techniques into the total WQM process for point and nonpoint.

- Assist in determining if voluntary BMP's are working, or if regulatory programs are needed.

- Include an implementation information element to keep track of WQM plan implementation.

- Encourage the State to hold annual State WQM workshops. EPA Region II will hold an annual Regional WQM conference.

The following major objectives/activities are to ensure the development of regional and state WQMIS:

- State will develop and maintain an information system for handling transferable technical information.

- State will prepare summaries of the results of problem solving projects.

- State will (with initial EPA assistance) utilize the resource of technical assistance contracts to help transfer prototype information (i.e. provide training) to agencies with specific needs.

- State will determine what group needs to be trained.

- State will revise training priorities as new information is developed.

- EPA will advise agencies of existing available plan information and of the funding restrictions that will disallow duplicative work in prototype projects.

State and Region II

- State/EPA will hold annual statewide/regional meeting/conferences for WQM participants to discuss transferable results.

- State/EPA will determine new priorities for the annual conferences as new information becomes available.

4. Program

As initial planning is nearing completion, EPA, the State, and the areawide and local agencies must implement the decisions made in the planning process. In light of the level of effort exerted on the parts of the various agencies in developing expertise and intimate knowledge of the nature of problems in their areas, it would be wise to utilize this resource to the fullest extent by involving them in the future efforts of this program. These efforts will consist of filling gaps in the plans, especially for nonpoint source controls. EPA will continue to use the 208 grant program to augment the existing point source control framework with an equally complete nonpoint source framework.

There is also a need to adequately involve the public in the WQM process by allowing their input and participation in problem assessments, 5 year needs assessments, development of program strategies, work plans, plan formulation, and implementation.

The following major objectives/activities are to ensure involvement of local agencies and the public in the WQM program:

- Areawide agencies prepare 5 year needs assessments for designated 208 areas.

- Utilize local agencies' technical and institutional expertise to develop technically sound and implementable WQM plans.

- Encourage local agencies support in promoting implementation of initial WQM plans.

- Involve local agencies in developing a restructured WQM process for solving point and nonpoint problems.

- Utilize local Citizen Advisory Committees (CAC's) in future area specific 208 prototype projects.

- Request local agencie's input into SEA WQM objectives, strategies, and activities.

- Involve local agencies and CAC's in developing scopes of proposed WQM projects.

- Actively involve, through delegation, local agencies and CAC's in: development of WQM SEA strategies, work plans, and planning activities.

2.2 Public Participation

The goal of public participation in Environmental Protection Agency (EPA) and NJDEP programs over the next several years is to develop sound, well conceived solutions to environmental problems which are generally acceptable to the affected publics.

Public Participation is an essential part of nearly every government activity that affects the environment. In order for involvement to be meaningful and beneficial to all, the public should be involved early and continuously in decision-making activities. (This includes the updating and implementation of the State/EPA Agreement (SEA).)

The EPA promulgated new public participation regulations in 1979 and 1980. The regulations specify the requirements for citizen involvement in the Clean Water Act, the Resource Conservation and Recovery Act, the Safe Drinking Water Act, and in all other EPA programs. Special sections deal with increased requirements for involvement in the planning activities of individual programs.

The NJDEP also developed public participation policy and organizational directives designed to assure early, continual and effective citizen participation in all DEP activities.

To enhance public participation activities:

- The EPA has promulgated Interim Guidance for the Construction Grants Program which will be published in final form during calendar year 1980.
- EPA has proposed a Policy on Public Participation which will govern all activities of EPA and subsequent grantees.
- The NJDEP has developed a new public participation policy, Department wide office and committee of agency and private citizen representatives. By mandate of this policy and under the direction of the Public Participation Committee, each NJDEP Division Element and Office, including the Offices of the Directors, is developing a detailed strategy for public involvement in each program listing objectives, affected publics, and activities. The strategies describe how public participation programs will be integrated to meet federal and state regulations, policies, and intent and to use existing resources most effectively. The strategies describing DWR work plans comprise a NJDEP-DWR participation plan.
- The Division of Water Resources has created an office of Public Participation to allow for coordination and improvement of Division-public activities.

With the implementation of the Division Plan, it is anticipated that citizen involvement opportunities will be increased, and opportunities for involvement will be more uniform for all Water Resource activities. The programs which will and will not include public participation, the strategies and the associated activities and organizational responsibilities will be clearly stated in the Division Public Participation Plan. Timing, outputs, man years, funding sources, targetted publics and issues are addressed in individual workplans.

The Division is currently evaluating a concept that would allow for the consolidation of appropriate Division public involvement activities. This plan, if implemented, would result in periodic regional meetings addressing the gamut of issues addressed by the DEP. This Divisional program would not be an absolute substitute for required public participation activities associated with each Division program. Specific requirements and programs associated with, for example, regulation development or wastewater facilities grants programs may be necessary in addition to the Divisionwide regional program. Whenever this appears to be the case, the Division plan will detail planned activities. Nevertheless, a consolidated approach to citizen involvement is seen as a mechanism to increase mutual awareness and understanding and to improve participation opportunities for the public in the range of Division activities at the same time that it consolidates DWR and public resources.

Generally speaking, the proposal calls for the creation of six regional bodies consisting of:

1. representatives from the range of public sectors to make up the core group reflective of the region they represent, and
2. participation by the public at large.

These regional groups will meet (possibly quarterly) with appropriate management and staff personnel to receive an update on Division activities, to receive additional information on specific issues of interest and to provide advice to the Division on the conduct of its programs. Since many issues cannot be adequately addressed within four (4) meetings per year, it may be necessary to form "sub groups" as a branch of the regional core to deal with specific issues (i.e. trout management, environmentally sensitive areas, water supply projects). The information of these groups will be at the prompting of either the Division or the public.

The integration of involvement activities through regular regional DWR public meetings is designed to allow additional cross cutting of issues in public discussion. It would also aid in the development of a network of citizens interested and active in environmental issues. This will, by design, result in a significant improvement in the use of resources.

In addition to regional groups with balanced representation, there is also a need for the Division to communicate at certain times directly with groups organized around a particular perspective. To date, these groups include the Water Resources Advisory Group (Environmental Interest) and the Industrial Advisory Group and the Water Purveyors Advisory Group. These groups are critical in effecting a system of checks and balances for Division programs and will be encouraged to work with the Department and the Division. In addition, the two councils associated with the DWR must be examined to determine their most appropriate role. These are the Water Policy and SUpply Council and the Clean Water Council. The Division will be examining ways to best apply the resources available in these Councils to Division activities.

Besides these groups formed specifically to interact with the Division of Water Resources, the EPA and the DEP recognize the strength of resources available in local and regional groups in New Jersey. Efforts will be made in the future to capitalize on these resources and to utilize various groups in our efforts to develop effective public participation programs.

Since this program will, naturally, require the support of both the public and the DWR staff in order to be successful, the DWR is asking for comments and criticism on the proposal. An analysis, independent of the SEA process will be conducted to determine if this approach is appropriate. It is hoped that, if acceptable, regional committees would be functioning in the spring. For more information on this issue, please contact Susan Goetz, DWR Public Participation Coordinator at (609) 292-1637.

note: It is difficult to ascertain personnel requirements for these public participation activities since personnel needs are often dependent upon uncontrolled circumstances. The Division of Water Resources has committed four (4) persons full-time to public participation activities (Division Coordinator; Director, Passaic River Basin Flood Study; Construction Grants Coordinator; and Program Development and Technical Standards Public Participation Coordinator). Other programs are also committed to provide personnel on an "as needed" basis. Development of the Division Public Participation Plan will clarify the need.

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.0 DEVELOP DWR PUBLIC PARTICIPATION PLAN WHERE APPLICABLE:	1A Apply EPA regs & DEP/DWR policies to <u>all</u> applicable programs	DWR	12/80		*	portion of project dollars
- Water Quality Man. . NPDES . nonpoint sources . groundwater programs . residuals . pretreatment - Construction Grants - Water Supply . potable . allocation . planning - All EPA/DEP projects development of SEA update	1B Prepare work plans for all applicable programs to include: - detail compliance schedules - compositional requirements for each citizen advisory committee (CAC) - <u>detailed</u> budget - staff resources (specific names & titles) - schedule of activities	DWR/EPA	1/81 thru 3/81			
2.0 DESCRIBE PROGRAMS OF THE DIVISION WHICH WILL <u>NOT</u> HAVE A PUBLIC PARTICIPATION PROGRAM & EXPLAIN WHY - Amdinistration - Monitoring	1C Explain training program for the CAC's.					

* see not in narrative

Figure 2-1 Strategies for Public Participation

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
3.0 DEVELOP CONSOLIDATED P.P. PROGRAM, UMBRELLA TO DIVISION ACTIVITIES	- introduce concept to existing public bodies	- DEP/208 designated agencies	10/80 1/81	revise draft report	*	
	- revise program based on public comments	DEP	10/80 1/81			
	- solicit participants through active outreach program	DEP	1/81	newsletter		
	- begin participation-response process (i.e., quarterly meetings, subcommittee meetings as necessary)	DEP/public	1/81	meetings	1	

* see note in narrative

Figure 2-1 Strategies for Public Participation

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
4.0 INVOLVEMENT OF DWR ELEMENTS IN P.P. PROGRAM	- preparation of quarterly status reports	DWR elements and P.P. coordinators	quart.	quarterly reports	* varia.	each individual program funds
	- participation of management personnel in quarterly meetings		quart		-	
	- involvement of element personnel on an ongoing basis		contin.		varia.	
	- involvement of program public involvement coordinators in specific program activities . pretreatment . construction grants . groundwater . water quality management		determined by individual project work-plans			

* see note in narrative

Figure 2-1 Strategies for Public Participation

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
5.0 INVOLVE SPECIAL INTEREST GROUP						
5.1 Industrial Advisory Committee	- engage in active & continuous dialogue with IAC on issues determined to be critical by either the IAC or DWR	DWR	as needed			
5.2 Water Resources Advisory Group	- engage in active & continuous dialogue with WRAG on issues determined to be critical by either the WRAG or DWR	DWR	as needed			
5.3 Water Purveyors Advisory Committee	- meet monthly to discuss issues of significance to the water supply industry	DWR	monthly		.1	
5.4 Clean Water Council	- engage in active & continuous dialogue with the CWC on issues determine to be critical by either the CWC or the DWR	DWR	monthly			

* see not in narrative

Figure 2-1 Strategies for Public Participation

2.3 Municipal Wastes

2.3.1 Section 205(g) Construction Grants Delegation

New Jersey has received partial delegation of the construction grants program through a formal agreement signed by the EPA Region II Administrator and the Commissioner of New Jersey Department of Environmental Protection (NJDEP) on September 27, 1979. The delegation agreement defines the responsibilities of tasks to be delegated to the State, EPA oversight and program reponsibilities, etc.

This section presents program development strategies and activities to be undertaken by the NJDEP, DWR Construction Grants Administration, to effectively improve the management of the Construction Grants Program through the continued delegation of responsibilities to the State. Complete delegation will be accomplished through key objectives and activities.

Section 205(g) is modified to accelerate substantial delegation of the Construction Grants Program to NJDEP and to enhance interagency and interdepartmental communications which will improve overall managment of the Construction Grants Program. Several new activities which will accomplished this are: implement a re-organized NJDEP staff structure; establish a program for attracting and retaining qualified NJDEP personnel; and implement detailed overview and progrm evaluation.

Figure 2-2 presents the objectives for Construction Grants Delegation and the associated activities, organizational responsibilities, timing, outputs, man-years and sources of funds to ensure complete delegation.

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.0 CONSTRUCTION GRANTS DELEGATION PROGRAM DEVELOPMENT						
1.1 Develop State/EPA Construction Grants Delegation Agreement	1.1.1 Continue State and EPA task forces to prepare and update agreement (composed of staff from groups tasks) currently performing or expected to perform construction grant tasks.	1) NJDEP, DWR, CGA 2) USEPA, NJWPB	on-going	Delegation Agreement	2	205(g)
	1.1.2 Continue Public Participation Program including a Citizens Advisory Committee (CAC) and schedule of public meetings and a public hearing on the delegation agreement	1) NJDEP, DWR, CGA 2) USEPA, NJWPB	on-going			

Figure 2-2 Strategies for Section 205(g) Delegation

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	1.1.3 Implement organizational structure to facilitate effective program coordination, and provide staffing and training needs. Develop a schedule for increasing staff capabilities, leading to full program delegation	1) NJDEP, DWR CGA	ongoing			205(g)
	1.1.4 Establish procedures for modifying existing subagreements on a periodic basis.	1) NJDEP, DWR, CGA 2) USEPA, NJWPB	Nov 80			
	1.1.5 Complete subagreements for all functions to be delegated addressing the specific responsibilities to be delegated and detailing the requirement,	1) NJDEP, DWR, CGA 2) USEPA, NJWPB 3) CAC Task Force	Nov 80			

Figure 2-2 Strategies for Section 205(g) Delegation

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	limits and exclusions, and include flow charts indicating review responsibilities to assure proper program integration and concurrence in decision making					
	1.1.6 Provide for continuing public involvement	1) NJDEP, DWP, CGA 2) USEPA, NJWPB	on-going			
1.2 Implement Construction Grants Delegation Agreement	1.2.1 Apply for and obtain 205 (g) grant monies for continued staffing and training sufficient to assume full level of delegation	1) NJDEP, DWR, CGA	Sept. 80 properly staffed program	Adequately funded	128	205(g)

Figure 2-2 Strategies for Section 205(g) Delegation

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	1.2.2 Implement effective reorganization necessary to receive delegated responsibilities for all phase of delegation	1) NJDEP, DWR, CGA	Oct 80			
	1.2.3 Establish a program for attracting and retaining qualified personnel	1) NJDEP 2) Civil Service 3) USEPA	Oct. 80	Written report to EPA		
	1.2.4 Adequate physical plant facilities for increased staff will be provided	1) NJDEP, DWR	Oct 80			
	1.2.5 Implementation of subagreement activities. Revised schedule for implementation of additional tasks beyond tasks already delegated must be prepared by NJDEP.	1) NJDEP, DWR, CGA	Nov. 80			
	1.2.6 Continued input from CAC will be obtained through the public participation program	1) NJDEP, DWR, CGA 2) USEPA, NJWPB	on-going			

Figure 2-2 Strategies for Section 205 Delegation

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	1.2.7 Evaluate performance of NJDEP to determine if delegated responsibilities are being performed satisfactory and if additional responsibilities may be delegated in accordance with the agreed to (or modified) schedule in the Delegation Agreement Tasks	1) USEPA, NJWPB 80	Sept			
	1.2.8 Ensure that proper evaluation and control procedures are established before NJDEP assumption of tasks.	1) USEPA, NJWPB 2) NJDEP, DWR, CGA	on-going			

Figure 2-2 Strategies for Section 205(g) Delegation

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.3 Continue effective interagency and interdepartmental coordination for improved program coordination to improve overall management of the program	1.3.1 Establish and implement procedures for addressing new or revised Federal/ State regulations, policies, guidance, etc., i.e. I/A, Envir. sensitive areas	1) USEPA, NJWPB 2) NJDEP, DWP	on-going	Proper Oversight	1	205(g) USEPA Budget
	1.3.2 Implement detailed overview procedures to ensure expeditious detailed quality review of construction grant documents to avoid Federal and State duplication	1) USEPA, NJWPB	on-going			
	1.3.3 Establish and implement detailed program evaluation procedures for mid-year and annual reviews	1) USEPA, NJWPB	on-going	Annual review Sep/Oct mid-year review Mar/Apr		

Figure 2-2 Strategies for Section 205(g) Delegation

2.3.2 ADVANCED WASTE TREATMENT

Under Section 303 of the Clean Water Act (CWA) of 1977, the State is obligated to: (a) identify those waterways for which secondary treatment for municipal discharges will not be sufficient to comply with instream water quality standards; (b) establish a priority ranking of all such waterways for which secondary treatment (municipal) and/or best practical control technology (industrial) will not meet water quality standards; (c) establish total allowable maximum daily loads for dischargers into waterways for which some form of AWT will be required for municipal and/or industrial sources; and (d) establish AWT limitations in accordance with the priority list for waterways for which AWT is required including seasonal variations and appropriate safety factors in such determinations.

Under Section 201 of the CWA, the USEPA is authorized to provide funds to construct municipal STP's to provide a minimum of secondary treatment.

The rationale for imposing AWT requirements for specific effluent constituents has historically been based upon several essential factors: (a) results of water quality model studies (especially with respect to CBOD and BOD limitations); (b) conformance with the antidegradation policy; (c) New Jersey State regulations concerning treatment of wastewaters; (d) prevention of eutrophic conditions in non-tidal waters (generally P-removal); (f) prevention of algal blooms in tidal waterways (generally N-removal); (g) preservation of trout propagation waterways (dechlorination or other requirements), and (h) limitations on discharges to intermittent streams. The extent of technical justification for the imposition of AWT has not yet been defined, nor has the source of funding been identified for such studies.

Currently, funding limited to that provided under Section 106 of the Clean Water Act, is inadequate to support the number of such studies which would be needed on a statewide basis. EPA-Region II has developed a tentative list of watercourses and associated 201 projects for which Section 201 monies might be used to project the instream impact of such municipal discharges. EPA and NJDEP will develop a final listing of Section 201 projects which will be required to undertake instream studies as an adjunct to their present or future facilities planning. It is also essential that a methodology be developed to identify data needs, water quality models and other analytical tools which are needed to support the imposition of AWT requirements on municipal or industrial dischargers.

The further development of a joint USEPA-NJDEP policy concerning advanced waste treatment needs for municipal point sources will provide numerous benefits. It will streamline the review of Section 201 grant proposals and will provide uniform statewide guidelines for determining treatment level requirements which will be consistent with both USEPA and NJDEP policy. Beyond providing an equitable and systematic procedure for determining AWT needs at municipal facilities, it is also expected that the AWT policy will provide a mechanism for identifying those waterways within New Jersey warranting priority attention for water quality studies needed to determine AWT needs and to pinpoint particular sources of funding which can be prospectively utilized for such studies. The impact of this policy,

therefore, will have a major effect on the overall administration of the Section 201 Construction Grants Program in New Jersey and will assist in directing resources toward evaluating AWT needs and constructing AWT facilities to insure compliance with State and Federal regulations.

Figure 2-3 presents the strategies for Advanced Waste Treatment and the associated activities, organizational responsibilities, timing, outputs, man years and sources of funds.

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.0 ADVANCED WASTE TREATMENT - PROGRAM DEVELOPMENT 1.1 Develop Wasteload Allocation Methodology (WLA)	1.1.1 EPA and NJDEP will jointly develop a WLA procedure to be utilized for determination of AWT requirements for Section 201 proposals. This procedure will be used to determine where the following AWT processes will be eligible for Section 201 funding by EPA: . CBOD removals greater than required by secondary treatmet . NOD removals . dechlorination and or alternatives to chlorination . denitrification . post-aeration	1) NJDEP, DWR (L) a) Bureau of Systems Analysis and Wasteload Allocation (BSA&WLA) b) Construction Grants Administration (CGA) 2) USEPA, Region II, (S) DRBC	Oct. 1980	Methodology	.25	CWA, Section 208

Figure 2-3 Strategies for Advanced Waste Treatment

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	. utilization of seasonal operation for all or a portion of the AWT processes . P-removal . removal of other constituents not regulated by other State of Federal regulations					
1.2 Develop Water Quality Modeling Procedures	1.2.1 USEPA and NJDEP will establish a joint policy to identify water quality models which are to be utilizied for particular types of 201 projects; to outline minimum field survey requirements which will be needed to support any AWT proposals and to outline the extent to which cost benefit analyses are included in AWT proposals	1) NJDEP, DWR, BSA WLA 2) USEPA, Region II DRBC	March 1981	Policy Statement	EPA-.25 DEP-.4	CWA, Section 106

Figure 2-3 Strategies for Advanced Waste Treatment

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	1.2.2 DEP will establish criteria for application of effluent limitations based upon the intermittent stream policy, and effluent limitations for specific constituents in discharges to intermittent streams.	NJDEP, DWR BAW&WLA	Dec. 1980	Criteria for application of effluent limitations Effluent limita-tions for constituents.	.25	CWA, Section 106
	1.2.3 EPA will provide technical assistance in the development of the intermittent stream policy	USEPA, Region II			.1	
1.3 Utilization of Section 201 funds for WLA studies	1.3.1 NJDEP and EPA will develop a priority list of waterways and associated 201 projects to be modeled using Section 201 funds	NJDEP, DWR BSA&WLA	Sep. 1980	A priority list of waterways		Section 208

Figure 2-3 Strategies for Advanced Waste Treatment

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	1.3.2 NJDEP and EPA will develop administrative procedures to channel Section 201 funds to appropriate WLA studies and to allow overall administration of individual studies by NJDEP.	NJDEP, USEPA CGA, BSA&WLA	Nov. 1980		.2	Section 201 Section 208
	1.3.3 NJDEP and EPA will identify which WLA studies will be undertaken by NJDEP and which will be contracted out to consultants.	NJDEP, USEPA	Nov. 80/ On-going			Section 201
	1.3.4 NJDEP will carry out/supervise water quality surveys and analyses using available 201 funds and will recommend wasteload allocations for all dischargers.	NJDEP	On-going			Section 201
	1.3.5 EPA concurrence with 1.3.4	USEPA				

Figure 2.3 Strategies for Advanced Waste Treatment

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.4 Other Strategies	1.4.1 NJDEP and EPA will investigate the desirability of establishing an effluent chlorine residual policy for discharges into certain high quality waterways. 1.4.2 NJDEP will consider the development of a policy to establish effluent limitations for land disposal discharges; this policy will incorporate minimum treatment limitations for specific constituents which would be uniformly required for any land disposal projects.	NJDEP, DWR, BSA&WLA	1981	Policy Statement		Section 201

Figure 2-3 Strategies for Advanced Waste Treatment

2.3.2.1 ANTIDEGRADATION POLICY

The USEPA regulations under the Clean Water Act require the State to develop a clear process for protecting high quality waters from further degradation. These regulations require that areas of outstanding State and national waters be protected from any further degradation, while other high quality waters are protected in such a manner that the existing use of the stream is preserved. It is possible to change the physical and chemical characteristics of a stream to a limited extent without significantly affecting the actual instream uses (e.g., trout maintenance).

The State's water quality standards include a provision which requires that streams having existing water quality higher than the minimum water quality standards be maintained at their existing quality unless a change is justified based on necessary social and economic development. The interpretation of this statement has raised many questions concerning the degree that this requirement would restrict future development in the State. It is estimated that 75 percent of the State's drainage areas have streams which have water quality in excess of standards for at least one of the water quality criteria in the State's standards. It is therefore important to clarify the process that will be used to set the effluent requirements in high quality waters.

NJDEP has established a system for setting the effluent limits for high quality streams. In Class FW-1 streams no new discharge is allowed. In Category 1 streams, no degradation is allowed. (All of Category 1 streams meet certain criteria - trout production and tributary streams, water upstream of trout production, approved shellfish waters, waters which flow through state and federal parks, fish and wildlife management areas, and unique biological areas such as the Pine Barrens.) Dischargers to Category 1 streams would be required to meet existing background stream quality. In Category 2 streams, some degradation is allowed. In streams that do not meet the criteria for Category 1, NJDEP allows some change in stream quality provided that the use of the stream is protected.

For Category 2 streams, affected local jurisdications would be advised of the effluent requirements that NJDEP would require for the proposed discharge and could appeal the NJDEP decision to allow some change in stream quality. For Category 1 streams, an applicant would have the right to appeal the effluent requirements at a public hearing on the basis that the economic and social costs of meeting the requirements bear no reasonable relationship to the maintenance of existing water quality.

To establish a definitive method for classifying streams, the following strategies will be pursued:

- NJDEP will establish clear criteria to define acceptable changes in water quality where changes will be allowed.

- When developed, the criteria will be incorporated into WLA Technical Procedures Manual.

The establishment of a clear process for setting requirements for discharge to high quality waters will ensure that these decisions will be made in a consistent manner, will be open to public scrutiny, and will ensure the maximum protection of stream quality consistent with other social goals. The policy will have the effect of making new and increased stream discharges more costly and will favor land disposal where this is less costly than high levels of wastewater treatment. The policy will also make it more attractive to develop in areas which do not have extremely pristine streams and will complement the State's urban policy.

The Antidegradation Policy and Interim Wasteload Allocation Procedures are embodied in the NJDEP proposed revisions to the Water Quality Standards. Adoption of those standards is scheduled for September, 1980.

Figure 2-4 presents the strategies for the Antidegradation Policy and the associated activities, organizational responsibilities, timing, outputs, manyears and sources of funds.

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.0 ANTIDEGRADATION POLICY -- DEVELOP POLICY AND PROCEDURES TO IMPLEMENT FEDERAL AND STATE LAW AND REGULATIONS	1.1 Develop basic policy/ procedures as part of State WQM Plans	NJDEP, DWR, Monitoring and Planning Element (M&P Element)	Comp.	Draft Plan	N/A	N/A
	1.2 EPA concurrence with 1.1	USEPA, Region II	1980	EPA Review comments		EPA Budget
	1.3 Adopt and implement policy/procedures statewide	NJDEP, DWR Bureau of System Analysis and Wasteload Allocation (BSA&WLA)	1980	Revisions to water quality		CWA, Section 106 Section 208
	1.4 Develop detailed procedures to implement policy including procedures for data collection interpretation to determine guidelines for determining if proposed discharge will adversely affect stream uses, guidelines for applicants to appeal	NJDEP, DWR BSA&WLA	1980 on-going carry over	guideline documents	.25	CWA, Section 106 Section 208

Figure 2-4 Strategies for Antidegradation Policy

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	effluent limits based on antidegradation, development of criteria for judging "acceptable degradation" for category 2 waters etc.					
	1.5 EPA assistance, guidance in development of 1.4	USEPA, Region II		Review Comments		EPA Budget
2.0 ANTIDEGRADATION POLICY -- DETERMINE AREAS FOR APPLICATION OF POLICY	2.1 Based on 1.1 - 1.4 propose waters for strict application of antidegradation policy through public participation process	.NJDEP, DWR, BSA&WLA .Designated 208 Agencies	1980	Prioritized list of streams	.25	CWA, Section 106
	2.2 Inform public of waters proposed in 2.1	.NJDEP, DWR BSA&WLA .Designated 208 Agencies		Public meetings and comments	.25	CWA, Section 208
	2.3 Adopt amendments to water quality standards identifying waters for application of antidegradation policies	NJDEP, DWR, DRBC	1980 Regulations	WQS	.25 Section	CWA, 106
	2.4 EPA concurrence with 2.3		1981			

Figure 2-4 Strategies for Antidegradation Policy

2.3.3 Land Application of Municipal Wastewaters

Since the inception of the Federal Construction Grants Program in 1972, there has been considerable interest in promoting land application systems and particularly spray irrigation, in New Jersey. Recent Federal initiatives have promoted the use of land application by municipalities as a cost-effective means of achieving water quality goals using existing technology. In fact, the USEPA has instructed the States to give priority consideration to land application alternatives in the construction grants program. To date, however, no land application projects have been constructed in New Jersey State with Section 201 funds even though some facility planning for land disposal has been completed for certain projects.

A major problem hindering construction of land application projects in New Jersey State has been the inconsistency between the treatment levels which USEPA and NJDEP require prior to land disposal. The NJDEP has required, as a matter of policy, that municipal discharges receive secondary treatment and chlorination prior to any land application. This is a prerequisite for State certification of any construction grants project utilizing land disposal. USEPA, on the other hand, does not automatically require secondary treatment as a prerequisite for land disposal of municipal wastewater or as a prerequisite for Section 201 funding for such projects. In fact, USEPA has published guidelines specifying minimum preapplication treatment levels which are less stringent than the secondary treatment requirements mandated by NJDEP. As a result, only those project costs which are associated with facility planning for a plant which meets the Federal minimum treatment levels are eligible for Section 201 funding. Any additional costs related to pre-application treatment levels which are more stringent than the Federal minimum levels must be justified in order to be eligible for USEPA funding. This basic inconsistency between the State and Federal minimum treatment requirements has, as a result, delayed Federal funding for, and in general, has been a major obstacle to, the development of land application projects in New Jersey State.

Another problem which hampers the use of land application is the fact that many sewerage authorities are reluctant to construct land disposal systems since reserve land area must be set aside when the facility is initially constructed in order to accommodate future growth in the service area. In areas where rapid infiltration methods cannot be utilized, this additional reserve requirement can be the most siginificant capital cost item in constructing the facility. This is further complicated by the fact that many authorities or municipalities are reluctant to construct facilities which also require marketing byproducts such as hay or other crops which are created by spray irrigation. Furthermore, no officially published requirements or guidelines exist which outline all the technical requirements for spray irrigation systems, causing a general lack of familiarity with such systems.

The objective of the land application strategies is to promote the use of land application as a cost-effective means of achieving water quality goals. There are however, a number of constraints, which can best bet resolved through a comprehensive policy and problem strategy development and implementation effort. These strategies, and their corresponding activities, will be implemented over the next five years by the NJDEP Division of Water Resources' Water Quality Management Element and Construction Grants Administration, among others.

The strategies developed in this section by NJDEP have been developed to meet the issue resolution and program development needs associated with realizing spray irrigation objectives. These needs include:

- developing and disseminating guidelines and regulations for the construction and operation of land application systems.

- removal of the blanket requirements for secondary treatment prior to application.

- evaluation of the needed degree of treatment (post-primary) on a case by case basis, taking into consideration variables such as nutrients loads, soil characteristics, etc.

- re-evaluation and re-consideration of funding constraints.

To resolve these issues, the following strategies will be pursued:

- NJDEP will reevaluate its requirement for secondary treatment prior to spray irrigation, including an assessment of blanket requirements.

  - NJDEP will evaluate the needed degree of treatment (postprimary) on a case-by-case basis taking into consideration such variables as nutrient loads, soil characteristics, geology, etc.

- NJDEP will develop guidelines or regulations for the design and operation of land application systems.

Development of the means for implementing spray irrigation practices in New Jersey could enable the State to achieve water quality goals at a minimum capital investment, especially in areas where discharges to surface waterways would entail some form of advanced waste treatment. There is also the possibility that certain growth and development restrictions could result from implementing a spray irrigation strategy, but this has not been definitely shown.

Overall, it is anticipated that the availability of spray irrigation as a viable option for disposal of municipal wastewater will allow the State to achieve water quality goals at minimal capital costs and detriment to surface water quality.

Land Application of Municipal Wastewaters is being modified from Spray Irrigation of Municipal Wastewaters and is being expanded to include all land treatment alternatives (overland flow and rapid infiltration) not only spray irrigation of municipal wastewaters. The NJDEP should also develop guidelines for operation and maintenances of land treatment systems and develop informational guidance on land treatment systems. These additional items are critical to promote land treatment and to insure proper operation and maintenance of the systems. In addition, the NJDEP guidelines must be expanded to include the health effects of spray coming off the land application sites.

Figure 2-5 presents the strategies for land application of municipal wastewaters and the associated activities, organizational responsibilities, timing, outputs, manyears and sources of funds.

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.0 LAND APPLICATIONS - REGULATORY/PROGRAM DEVELOPMENT	1.1.1 Make legal determinations as to existing authority and future requirements	NJDEP, DWR, WQME	Dec 80			
1.1 Evaluate and develop regulatory authority as part of the Treatment Works Approval to help encourage land application as an alternative treatment process	1.1.2 Prepare conceptual changes to the Treatment Works Approval to allow land application	NJDEP, DWR: 1) WQME 2) Construction Grants (S) 3) (S)	July 80			
	1.1.3 Solicit public input					
	1.1.4 Publish final changes in N.J. Register	NJDEP, DWR: 1) WQME (S) 2) C.G. 80 3) (L)	July thru Nov.		19.2	205(g) 208 STATE
	1.1.5 Promulgate final regulations	NJDEP, DWR, WQME 80	Nov.			
1.2 Develop guidelines for facilities intending to utilize land treatment	1.2.1 Develop guidelines for state inspections	NJDEP, DWR: 1) WQME 2) PWF (S)	July 80			
	1.2.2 Develop guidelines for application time and rates	3) NJDA Soil Conservation Committee and have these effects	July 80 Dec.	Guidelines		

Figure 2-5 Strategies for Land Application of Municipal Wastewaters

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	1.2.3 Develop guidelines for monitoring criteria	NJDEP, DWR: 1) WQME 2) C.G. (S) 3) Enforcement	Dec. 80			
	1.2.4 Develop enforcement options	4) WRP&M 5) NJDA Soil Conservations Committee				
		NJDEP, DWR: 1) WQME 2) C.G. (S)	Dec. 81			
1.3 Review plans for land applications	1.3.1 Develop guidelines for review of land application plans	NJDEP, DWR: 1) WQME 2) C.G. (S)	Dec. 81		1980-.2 1981-.2	CWA. Sec. 106, 205(g) 208
	1.3.2 Review of land application plans	NJDEP, DWR: 1) C.G. 2) WQME	ongoing		1982-.2 1983-	
1.4 Develop guidelines for operation and maintenance of land treatment systems	1.4.1 Develop guidelines for operation and maintenance of: - slow rate - rapid infiltration - overland flow	NJDEP NJDEP/EPA	Dec. 81 ongoing June 81	.1 NJDEP Regulations	1984-.1	

Figure 2-5 Strategies for Land Application of Municipal Wastewaters

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	1.4.2 Issue 5 yr. permit to land application systems that require schedules NJDEP-WQME ongoing					
1.5 Provide for information dissemina- of land treatment alternatives	1.5.1 Conduct training courses	NJDEP/EPA June 81	ongoing			
	1.5.2 Issue guidelines to consulting engineer municipalities, etc.					
1.6 Develop and issue permits for land application	1.6.1 Require applications for NJPDES permits from land application systems	NJDEP, DWR, WQME	Jan. 81	Permits Issued		205(g) 208 STATE

Figure 2-5 Strategies for Land Application of Municipal Wastewaters

2.3.4 On-site Subsurface Wastewater Disposal Systems (Septic Systems)

The objective in managing septic systems is to ensure that such systems are designed or constructed to prevent health problems or degradation of surface and ground waters through an integrated planning, design and construction; operation and maintenance permit; enforcement and management program. A regulatory and program development strategy has been developed to meet these objectives. These strategies, and their corresponding activities, will be implemented over the next several years by the NJDEP, DWR's Water Quality Management Element's Bureau of Ground Water Management, with input from the Public Wastewater Facilities Element, and various public and substrate agencies.

The strategies in this section have been developed by NJDEP to meet the program development needs associated with realizing septic system management objectives. These needs include:

- establishing ground water standards
- alternate design standards and guidance
- permit issuance
- development of management plans and agencies.

Figure 2-6 presents the strategies for on-site subsurface wastewater disposal systems and the associated activities, organizational responsibilities, timing, outputs, man-years and sources of funds.

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.0 GROUND SUBSURFACE DISPOSAL - REGULATORY/ PROGRAM DEVELOPMENT 1.1 Develop ground water standards	See Ground water Management			Standards		
1.2 Upgrade standards for the construction of individual subsurface sewage disposal systems	1.1.1 Revise and draft standards	1) NJDEP, DWR: a) WQM (L)	Completed	Standards	1.5	GWA, Sec. 201 State Appropriation
	1.2.2 Revise standards	All DWR agencies, public.	July 1980	Standards		
	1.2.3 Promulgate standards	NJDEP 1) WQM 2) All DWR agencies	Dec. 1981	Standards		

Figure 2-6 Strategies for On-Site Subsurface Wastewater Disposal Systems

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.3 Develop standards alternate designs to conventional septic systems to prevent health problems and ground water pollution	1.3.1 Research other state/ FPA/etc. alternate designs	NJDEP, DWR: 1) WQM (L) 2) CGA (s)	JUNE 1980	Standards	.75	
	1.3.2 Develop ground water quality standards	NJDEP, DWR: WQM	FEB 1980	Standards		
	1.3.3 Draft alternate design standards	NJDEP, DWR: 1) WQM (L) 2) CGA (S)	JULY 1981	Standards		CWA, Sec.201 State Appropriation
	1.3.4 Send out for review of DWR, statutory committee, public	NJDEP, DWR: 1) WQM (L) 2) CGA (S)	SEPT 1981			

Figure 2-6 Strategies for On-Site Subsurface Wastewater Disposal Systems

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	1.3.5 Promulgate alternate design standards	NJDEP, DWR: 1) WQM (L) 2) (S)	FEB 82	Standards		CWA, Sec.201 State Appropriation
1.4 Issue permits for alternate designs to conventional septic systems to prevent health problems and groundwater pollution	See Ground Water Management	NJDEP, DWR: 1) WQM(L)	FEB 1981	Issue Permits	5	
1.5 Issue permits for subsurface disposal (septic systems) in critical area, subdivisions over 50 units, schools, hospitals, campgrounds and trailer parks. Permits issued primarily to protect public health except in Pine Barren Critical Area where						

Figure 2-6 Strategies for On-Site Subsurface Wastewater Disposal Systems

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
(1.5 continued) ground water quality standards also must be sent			FEB 1981			
1.6 Develop certification program for field testing and inspection personnel to insure reliable and cost effective field tests for design purposes	1.6.1 Research other state certification programs		DEC 1981	Certification Program		
	1.6.2 Revises types of data and tests required in standards and specification for design of septic systems (including alternate designs)	NJDEP, DWR: 1) WQM (1)	Start DEC 1981 Complete take-over 1984		1 yr	CWA, Sec.201 State Appropriation
	1.6.3 For specified tests and data, list tester/inspector powers, influence, and rights together with standards of performance	1) NJDEP, DWR: a) Groundwater Management Unit (L) b) Office of Regulatory Affairs (S) 2) State Statutory Committee (S)	Dec. 81			

Figure 2-6 Strategies for On-Site Subsurface Wastewater Disposal Systems

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	1.6.4 Initiate appropriate implementation (administrative/ legislative) steps	NJDEP, DWR, WQM	DEC 1981			
	1.6.5 Prepare a two-part examination (written and practical)	1) NJDEP, DWR a) WQM 2) Other state agencies	MAR 1981	Written exam	1 yr	CWA, Sec.201 State Appropriation
	1.6.6 Devise administrative procedures for testing, certification and enforcement (inspection, hearings, loss of certifications)		JUNE 1981	Administrative Procedures		
1.7 Develop standards for operation and maintenance of systems	1.7.1 Research other state standards	NJDEP, DWR, WQM (1)	FEB 1981	Standards	.1	

Figure 2-6 Strategies for On-Site Subsurface Wastewater Disposal Systems

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	1.7.2 Draft Standards	WQM (L) CGA (S) State Statutory Committee (S)	FEB 1981	Standards	2/yr	CWA, Sec. 208
	1.7.3 Review standards	All DWR Agencies (L) State Statutory Committee (S)	JULY 1981			
	1.7.4 Promulgate standards	NJDEP, DWR 1) WQM 2) All DWR Agencies (S)	DEC 1981			

Figure 2-6 Strategies for Onsite Subsurface Wastewater Disposal Systems

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.8 Delegate management responsibility to appropriate DWR (or State agency), county or local agency following a thorough review of data gathering, design, construction, operation and maintenance and enforcement standards	1.8.1 For each of the following: data gathering design construction operation and maintenance enforcement determine the statutory, fiscal and geographic criteria necessary for successful application of the applicable standards	NJDEP, DWR, WQM (L), All Division Agencies (S), Public and sub-state agencies (S)	1981-1982	Management Delegated	2	
	1.8.2 Evaluate existing State, regional, country, and local institutions for their ability to meet each of the criteria developed in 1.8.1 above.	WQM (L), All Division Agencies (S), Public and substate agencies (S)	1982	Existing State, Regional, County and local institutions evaluated		
	1.8.3 Draft a plan for delegation of responsibility to existing state (including DWR),	WQM (L), All Division Agencies	1982		2/yr	CWA, Sec. 208 State

Figure 2-6 Strategies for On-Site Subsurface Wastewater Disposal Systems

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
(1.8.3 continued)	regional, county and local agencies and include proposals for statutory changes	(s), Public and substate agencies (S)				Appropriation
	1.8.4 Send out for DWR, Statutory Committee and Public Review	WQM				
	1.8.5 Delegate authority and/or initiate statutory change	WQM				

Figure 2-6 Strategies for On-Site Subsurface Wastewater Disposal Systems (con't.)

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.9 Develop a septage management plan	1.9.1 Determine the quanity and quality of septage	1) NJDEP, DWR a) WQM (L) b) CGA (S)	on-going thru JULY 1980	Report on quality and quantity of septage	2	
	1.9.2 Analyze existing treatment facility ability to accept and treat sludge and/or determine necessary adjustments for successful treatment	1) NJDEP, DWR a) WQM (L) b) CGA (S)	JULY 1980	Analysis Report		
	1.9.3 Direct changes to be made in facilities		JULY 1980			
	1.9.4 Determine other alternatives for septage treatment including: - land disposal methods		on-going thru JULY 1980	alternative analysis		

Figure 2-6 Strategies for On-Site Subsurface Wastewater Disposal Systems

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
(1.9.4 continued)	-composting -regional septage treatment facilities					
2.0 ENCOURAGE USE OF SMALL WASTEWATER FLOW SYSTEMS AS AN ALTERNATIVE TO CONVENTIONAL COLLECTION AND TREATMENT SYSTEMS	2.0.1 Coordinate efforts by establishing a small community assistance expert		OCT 1980		.25	
	2.0.2 Provide for information disseminction of small systems including training programs for consultants, grantees, etc.		on-going	Information disseminated		
	2.0.3 Stress small systems in Facility Planning Process		on-going			
	2.0.4 Provide grant assistance to small communities		OCT 1980	Grants Authorized		

Figure 2-6 Strategies for On-Site Subsurface Wastewater Disposal Systems

2.3.5 Combined Sewer Overflows (CSO's) - CSO is a new element which was segregated from "Urban/Suburban Stormwater Runoff" because it requires special attention from EPA/DEP.

In order to progress futher towards the national goal of eliminating the discharge of all pollutants to our waterways, it is necessary to develop a strategy which will protect surface water resources from the degrading effects of combined sewer overflows (CSO's). The result of an overflow can be a significant discharge or organic material, nutrients, sediment, micro-organisms, oil and grease, and metals and other potentially toxic substances into the receiving water. In some cases, concentrations are higher at the beginning of the overflow, the so-called first flush of material accumulated in the sewer. Depending on the characteristics and sensitivity of the receiving water, the overflow can have a variety of effects, ranging from serious to negligible.

Some of the options for controlling CSO's, especially those involving the division of the combined sewers into separate storm and sanitary systems, necessitate monumental expenditures. The problem is further exacerbated in that the relationship between water quality standards and such intermittant discharges has not been adequately addressed. The overall strategy will attempt to develop and implement cost-effective means for correcting CSO problems within the eligibility restraints of the Clean Water Act of 1977.

The CSO strategy has been keyed to problem resolution needs which must be satisfied to achieve the NJDEP and USEPA - Region II objectives, including the following:

- data collection to establish extent and conditions of existing systems
- integradation of point/non-point source abatement programs to achieve standards in water quality limited areas.
- development of a program with established procedures for CSO manag-men
- development of a program for retrofitting existing collection systems

This strategy must be tied together with the strategy, objectives and activitie for "Urban/Surburban Stormwater Runoff."

The State will establish a CSO section with a qualified technical staff to provide strong leadership in promoting CSO planning and fully participate in the review/evaluation of individual plans of study and selection/justification of control alternatives.

The State will develop specific criteria for CSO studies based on regional strategy and based on review of existing water quality standards. In order to properly address CSO's and their impact, new standards and/or best usages must be established which would address the intermittent nature of wet weather flows. It is also necessary to development criteria to evaluate CSO projects and compare them to other pollution abatement projects. In order to properly rank CSO projects on the State's priority list new parameters must be considered (e.g. water quality impacts of pollution source).

All CSO's within the State will be identified and the status of all ongoing CSO studies or related 201 studies and any Step 2 or 3 projects effecting CSO's will be determined. These areas and their respective studies require the guidance and direction generated through regional strategy and the proposed developed criteria.

The State will inform all applicants with ongoing or proposed CSO studies of funding limitations and selection criteria for the most cost-effective system.

It is necessary to give a detailed explanation of PRM 75-34 and 77-4 including cost-benefit ratios, knee-of-the-curve selections, alternative justifiable expenditure methods of allocating costs and restriction of drainage control as being considered pollution abatement. It should be noted that if drainage control is a coincidental benefit to the most cost-effective pollution abatement project, the entire project could still be eligible for funding. With the above funding restraints it should be emphasized that CSO efforts should first be directed at maximizing the use of the existing system.

Figure 2-7 presents the objectives and the associated activities, organizational responsibilities, timing, outputs, man-years and sources of funds.

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.0 DATA ACQUISITION						
1.1 Determine where CSO is a major problem	1.1.1 WQM agencies identifies CSO areas and summarize currently available information relating to degree of problem	1) NJDEP, DWR, WQM	on-going		.5	205(g)
1.2 Determine status of ongoing CSO studies and programs and affects on 201 projects (vice-versa)	1.2.1 State obtains status of on-going CSO studies and programs any 201 projects affecting CSO's and vice-versa.	1) NJDEP, DWR, CGA	Dec 80			
2.0 REGULATORY/PERMITTING ENFORCEMENT DEVELOPMENT			Dec 80		1	205(g)
2.1 Determine type of regulatory program	2.1.1 State/EPA establish the most appropriate type of regulatory program	1) NJDEP, DWR, WQM 2) NJDEP, DWR, CGA 3) USEPA, WD	Dec 80			

FIGURE 2-7 Strategies for Combined Sewer Overflows

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	2.1.2 State establishes tie-in with Stormwater Runoff strategy and Point Source Abatement Programs	1) NJDEP, DWR	Dec 80			
2.2 Develop discharge limitations appropriate to CSO's	2.2.1 State examines existing water quality standards with respect to CSO projects and required treatment levels in consideration of cost benefit analyses	1) NJDEP, DWR 2) USEPA, WD	on-going		2	205(g)
	2.2.2 EPA develops legal/program strategy to develop NPDES/regulatory requirements for CSO including waiver of treatment level requirements to provide for implementation of State standards.	1) USEPA, WD 2) NJDEP, DWR, WQM	Dec 80			

FIGURE 2-7 Strategies for Combined Sewer Overflows

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
3.0 DEVELOPMENT OF A PROGRAM FOR CSO MANAGEMENT						
3.1 Develop resources	3.1.1 State establishes staffing-i.e.-a CSO section to promote CSO plannings and to participate in the review/evaluation	1) NJDEP, DWR, CGA	Oct 80		2	205(g)
3.2 Implement CSO studies and development of cost effective solutions	3.2.1 EPA/State develops the guidance for planning and evaluating CSO's	1) NJDEP, DWR, CGA 2) USEPA, WD	Feb 81			
	3.2.2 State informs all applicants with ongoing or proposed CSO studies of new guidance for developing studies and assuring planning projects conform with policy	1) NJDEP, DWR, CGA	Feb 81			

FIGURE 2-7 Strategies for Combined Sewer Overflows

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	3.2.3 Selected agencies develop intensive studies to deter mine nature/extent of CSO problem and solutions	1) NJDEP, DWR, CGA 2) USEPA, WD	thru 81			
	3.2.4 State develops specific criteria for each CSO study including water quality and level of treatment requirements for input into facili-ties planning process	1) NJDEP, DWR, CGA 2) NJDEP, DWR, WQM 3) USEPA, WD 4) Monitoring & Planning	thru 81			
	3.2.5 State determines need/establishes revised water quality standards to address inter-mittant nature of CSO's	1) NJDEP, DWR	thru 81			

FIGURE 2-7 Strat gies for Combined Sewer Overflow

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES, OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
4.0 GRANTS						
4.1 Priority list	4.1.1 State develops criteria to evaluate CSO projects for ranking them with other pollution control projects on 5-year priority list	1) NJDEP, DWR	Mar 80		1	205(g)
	4.1.2 State establishes ranking factors and ranks CSO projects on 5-year priority list	1) NJDEP, DWR	May 80			

Figure 2-7 Strategies for Combined Sewer Overflows

2.3.6 Innovative/Alternative Technology - is a new element to the Municipal Waste Section.

The Innovative/Alternative (I/A) Technology Program is a new program established by Congress that provides increased grant assistance to qualifying communities for the Construction of wastewater treatment facilities. Incentive for the use of I/A technology has been provided by increasing the Federal grant from 75% to 85% for the design and construction of municipal treatment works that represent an advancement of the current state-of-the-art technology with respect to meeting the specific goals of (a) greater recycling and reuse of water, nutrients, and natural resources (b) increased energy recovery and conservation, reuse and recycling (c) improved cost-effectiveness in meeting specific water quality goals, and (d) improved toxics management. An additional incentive has also been provided to protect against the risk of utilizing I/A technology by allowing 100% Federal grants for modifications to I/A facilities which fail to perform satisfactorily.

The strategies developed in this section by NJDEP and USEPA Region II have been developed to meet the program development needs associated with realizing the Innovative/Alternative Technology objectives. These needs include:

- encouraging the development and use of I/A technology for the treatment of municipal wastewater
- promoting an active program for I/A technology
- providing basic methodological and technology information to the engineering and planning personnel preparing facility plans.

Figure 2-8 presents the strategies for the I/A technology program and the associated activities, organizational responsibilities, timing, outputs, man-years and sources of funds.

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.0 INNOVATIVE/ ALTERNATIVE TECHNOLOGY						
1.1 Develop and use I/A technology for the treatment of municipal wastewaters	1.1.1 NJDEP will stress I/A approaches to waste treatment through performing the following: - stringent cost effectiveness reviews - emphases on water energy conservation - integrating the needs of effluent discharge, water quality and water supply - emphases on using and recycling pollutants - emphases on the use of small systems as appropriate	1) NJDEP, DWR, CGA 2) USEPA, WD	on-going		2	205 (g)

Figure 2-8 Strategies for Innovative/Alternative Technology

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.2 Promote an active program for I/A technology	1.2.1 NJDEP will establish the position of I/A Coordinator	1) NJDEP, DWR, CGA	Oct 80		1	205(g)
	1.2.2 EPA will provide technical assistance to NJDEP	1) USEPA, WD	on-going			
1.3 Provide basic methodological and technological information to the public	1.3.1 EPA and NJDEP will disseminate I/A information through meetings, seminars, mailings, etc.	1) USEPA, WD 2) NJDEP, DWR, CGA	on-going		2	205(g)
1.4 Track program	1.4.1 EPA will monitor progress of NJDEP in this program	1) USEPA, WD	on-going		1	USEPA

Figure 2-8 Strategies for Innovative/Alternative Technology

2.4 Industrial Wastes

2.4.1 NPDES Assumption/Industrial Discharges

The objective of the NPDES program is to control the point source discharge of industrial effluents directly into receiving waters or indirectly into municipal treatment facilities through comprehensive regulatory/permitting activities. A major goal of the State (and USEPA is assumption of the NPDES program. Data acquisition, regulatory/program development and permitting strategies have been developed to meet such objectives for this particular WRMP and cross-cutting issue. These strategies, and their corresponding activities, will be implemented over the next five years by the NJDEP DWR's Water Quality Management Element and USEPA Region II with input from other DWR elements and 208 agencies.

An interim agreement has been reached, by which NJDEP is developing NPDES industrial permits, municipal permits, and pretreatment compliance schedules. These permits are forwarded to EPA for review and issuance. This affords NJDEP the opportunity to develop the necessary expertise for actual NPDES program assumption. The duration of this effort is presently planned for one year. Additionally, during this period, a training program is being formulated to develop NJDEP staff capability; NJDEP will develop final NJPDES (NPDES) regulations for NPDES program assumption; and technical staff/resource capability will be increased to acceptable levels for program assumption. It is also planned to formalize interim agreements into working agreements between NJDEP and EPA. Goals will be for NPDES program assumption after the one-year developmental process, scheduled to end December 31, 1980.

There is an on-going joint State/EPA effort to develop and implement an effective consolidated permit program. Upon finalization of the Regional Task Force's recommendations in this area, it is intended to include the applicable strategies/activities within the State/EPA Agreement.

The strategies developed in this Section by NJDEP and USEPA Region II have been developed to meet the policy and problem resolution needs associated with the control of point source industrial discharges. These needs include:

.a data collection and evaluation effort to evaluate compliance with NPDES permit requirements

.expansion of NPDES certifications to cover bioassay and toxics monitoring requirements and wasteload allocations

.development of effluent limitations to protect groundwater resources

.a continued NJDEP/USEPA Region II effort to identify permit violations and take appropriate enforcement actions.

These strategies and activities will be implemented over the next five years by a cooperative efforts between USEPA Region II and NJDEP. The role of each agency in the future will be determined by resolution of the NPDES assumption issue.

Figure 2-9 presents the strategies for NPDES assumption and industrial discharges and associated activities, organizational responsibilities, timing, outputs, man-years and sources of funds.

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.0 NPDES/INDUSTRIAL DISCHARGES - PROGRAM DEVELOPMENT 1.1 Develop Waste-load Allocations for industrial discharges to surface waters for both toxic and non-toxic pollutants & certify those effluent limitations into NPDES permits	1.1.1 Delineate streams into manageable segments	NJDEP, DWR, Monitor-ing & Planning	1980			
	1.1.2 Choose segment for pilot study, derive wasteload allocations	NJDEP, DWR: a) Monitoring & Planning (L) b) WQM (S)	1980	Pilot study Ambient monitoring Wasteload Allocations Report		
	1.1.3 Determine most appropriate method to derive wasteload alloca-tions	NJDEP, DWR, Monitoring & Planning, DRBC	1980	Regulations		
	1.1.4 Develop procedures to include waste-load allocations in NPDES cert.	NJDEP, DWR; DRBC a) WQM (L) b) Monitoring & Planning (S)	1980	NJPDES regulations		CWA, Sec. 106, 208 State Appro-priation
	1.1.5 Proceed with waste-load application program based on method chosed for pilot study and incensive surveys	NJDEP, DWR; DRBC a) Monitoring & Planning (L)	1980	Wasteload Allocations NPDES cert-ifications Memo of Agreement		

Figure 2-9 Strategies for NPDES Assumption

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	1.1.6 Include wasteload allocations in 208 plans	1) NJDEP, DWR, M & P (L) 2) Designated WQM agencies	1980-1984	Wasteload allocations in 208 plans		
1.2 Revise water quality standards	1.2.1 Revise water quality standards to include toxic standards	NJDEP, DWR, Monitoring & Planning DBRC			2	CWA, Sec. 106 State Appropriation
	1.2.2 Revise water quality standards to include ambient ground water standards	NJDEP, DWR, Monitoring & Planning DBRC, WQM (S)	1979-1980	Public hearing Adoption	1	1976 State Water Bond
1.3 Identify all industrial discharges to ground water	1.3.1 Complete aerial photography program	NJDEP, DWR, WQM (L)	1980-1981	Aerial photograph of State showing pits, ponds and lagoons	1	SDWA, RCRA
	1.3.2 Identify all pits, ponds and lagoons which may discharge to ground water	NJDEP, DWR: 1) WQM		see ground water section		CWA, Sec. 208

Figure 2-9 Strategies for NPDES Assumption

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.4 Develop effluent limitations for dischargers to groundwater	1.4.1 Prepare methodology for determining allowable discharge concentrations based on soil types	NJDEP, DWR: 1) WQM (L) 2) M & P (S)	1980	guidelines for spray irrigation	1	State Appropriation, CWA 208 grant
	1.4.2 Promulgate regulations on groundwater discharge effluent limitations	NJDEP, DWR: 1) WQM (L) 2) M & P (S) 3) DRBC (S)	1980	Draft and final regulations Ground Water Quality Standards		

Figure 2-9 Strategies for NPDES Assumption

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.5 Develop control mechanisms for siting of new industrial plants (particularly in sensitive areas)	1.5.1 Continue control of plant sitings in Pine Barrens	Pine Barrens Task Force	ongoing			
	1.5.2 Protect potable water sources from potential contamination by including controls for siting new industrial plants in sensitive areas in 208 plans not covered by other agencies	1) NJDEP, DWR WQM 2) Monitoring & Planning				
2.0 NPDES/INDUSTRIAL DISCHARGES PERMITTING						
2.1 Implement Interim Agreement and Working Agreements for NPDES Assumption by NJDEP	2.1.1 Develop NPDES Industrial permits, Municipal permits, pretreatment compliance schedules for issuance by EPA Completion of all first round permits and compliance schedules	1) USEPA Region II 2) DWR	1980-1981			

Figure 2-9 Strategies for NPDES Assumption

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
2.2 Continue NPDES Program to control point source dischargers to surface waters	2.2.1 Issue NPDES permits to all dischargers that have submitting applications to alleviate backlog	1) USEPA, Region II (L) 2) NJDEP, DWR WQM 3) 208 Agencies	1981	Completion of all NPDES permits		CWA, Sec.106, 208 State Appropriation
	2.2.2 Permits will be issued/reissued in accordance with previously noted priorities to insure/ continue effective discharge control					
	2.2.3 Primary Industry permits will be held to their limits until BAT guidelines become available					
	2.2.4 All sources must be considered for permit inclusion of BCT limitations/compliance schedule for control of conventional pollutants. This will be implemented for all industrial dischargers.	USEPA, Region II	ongoing		EPA-3yr DEP: WQM 6-5/yr ORA-.75 Bioassay - 1.0	

Figure 2-9 Strategies for NPDES Assumption

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	2.2.5 Where BAT Guidelines have not been promulgated for primary industry permits, 402(a) best engineering judgement will be utilized to establish BAT for specific sources.					
	2.2.6 All permits issued after promulgation of applicable BAT guidelines will incorporate those requirements as a minimum.					
	2.2.7 Include wasteload allocations in NPDES permits through the state certification process once developed by WQP&M and Monitoring and Planning.	NJDEP, DWR: 1) Monitoring, Surveillance & Analysis (L) 2) Monitoring and Planning 3) DRBC	1980-1984		.5/yr	CWA, Section 106 State Appropriation
	2.2.8 Certify effluent limits to NPDES permits promulgated by other agencies including DRBC, ISC, HMDC.		1979 1984	Certify all permits submitted	.5/yr	

Figure 2-9 Strategies for NPDES Assumption

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	2.2.9 Develop procedures/ regulations governing variances to State effluent limits/wasteload allocations	NJDEP, DWR: 1) Enforcement (S) 2) Monitoring and Planning 3) DRBC	1980	Procedure/ regulations after wasteload allocation adoption	.5	CWA, Section 106 Appropriation
	2.2.10 Develop new self monitoring requirements for NPDES discharge permittees to require screening bioassays and toxics self monitoring and place into certifications	1) (L) Monitoring and Planning	1980	Self monitoring requirements		
	2.2.11 Pursuant to Section 304 of the Act, include BMPs which will be ancillary controls on toxic or hazardous pollutants, in NPDES permits	USEPA, Region II			.5	
	2.2.12 Develop the data necessary to establish health and environmental priori-	USEPA, Region II NJDEP	initiate Jan. 1981		EPA-.5	CWA, Section 106 208 RCRA SDWA, State

Figure 2-9 Strategies for NPDES Assumption

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	2.2.12 (cont'd) ties and ensure effective permit issuance/ reissuance via mapping program. Orient toward water supply impact, hazardous wastes, ESA's.					Appropriation
	2.2.13 Develop controls for indirect as well as direct discharges through development of a comprehensive pretreatment strategy.	USEPA, Region II NJDEP	ongoing		EPA-1	
2.3 Develop NJPDES permits for groundwater dischargers	2.3.1 Develop NJPDES permits, for dischargers to groundwater, that parallel NPDES permits for surface waters and comply with NJWPCA	NJDEP, DWR: 1) Enforcement (L) 2) Water Quality Management, Groundwater Management Unit(s)	1981-1982	program development permit issuance		CWA, Section 106 State Appropriations

Figure 2-9 Strategies for NPDES Assumption

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
2.4 Revise and continue Treatment Works Approval (WA) Program	2.4.1 Revise existing TWA program for industrial dischargers to surface waters from a 2 stage approval to a 1 stage conceptual approval	NJDEP, DWR: 1) Enforcement (L)	Jan. 1981	promulgate TWA program revision regulations	16	CWA, Section 106 State Appropriations
	2.4.2 Expand TWA program for discharges to groundwaters on an interim basis until the NJPDES program is developed. Then reduce the TWA so it parallels the surface water TWA program	NJDEP, DWR: 1) Enforcement (L) 2) Water Quality Management, Groundwater Management Unit (S)	Jan. 1981		4	
2.5 Develop Facilities Approval Program (location mechanism	2.5.1 The Facilities Approval proposal is designed to be the mechanism to control siting of new facilities as outlined in the 208 plans. This would replace the permit to locate repealed by WPCA.	NJDEP, DWR: 1) Enforcement (L) 2) Counties (S)	1980-1984		4	State Appropriation

Figure 2-9 Strategies for NPDES Assumption

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	2.5.1 (cont'd) It is also geared to prevent accidental spills and leaks not covered by the Spill Compensation and Control Act for both ground-water and surface water.					
2.6 Continue review of Pollution Control Financing Act	2.6.1 DWR will continue to provide certification to the DEP, Division of Environmental Quality on the need to construct water pollution abatement facilities for the purpose of issuing low interest or tax free financing for construction	NJDEP, DWR: 1) Enforcement (L)	ongoing			
2.7 Continue tax exemptions	2.7.1 DWR will continue to certify the identify of pollution abatement facilities for the purposes of Federal and State tax exemption	NJDEP, DWR: Enforcement	ongoing			State Appropriations

Figure 2-9 Strategies for NPDES Assumption

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
2.8 Continue miscellaneous reviews	2.8.1 DWR will continue to conduct miscellaneous permit reviews (i.e. Army Corps Permits, Wetlands, Riparian A-95, CAFRA, etc.)	NJDEP, DWR, All elements and offices	ongoing			
3.0 NPDES/INDUSTRIAL DISCHARGES - DATA ACQUISITION 3.1 Continue self-monitoring report submissions	3.1.1 Industrial dischargers will continue to monitor and report discharge quality under NPDES program	1) USEPA, Region II (L) 2) NJDEP, DWR, Enforcement (S) 3) DRBC	ongoing			CWA, Section 106, Section 208 State Appropriations
	3.1.2. Industrial Treatment Works operators will continue to submit Monthly Operator Reports which will be updated to merge requirements with NPDES requirements	NJDEP, DWR: 1) Enforcement (L) 2) Construction Grants Administration	Jan. 1981	Form Revision		CWA, Section 106, Section 208 State Appropriations

Figure 2-9 Strategies for NPDES Assumption

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	3.1.3 Develop and implement a sluge monitoring program, including regulations, to require self-monitoring to assess sludge characteristics	NJDEP, DWR: 1) WQM 2) Enforcement (S) 3) CGA	Complete	Regulations		CWA, Section 106, Section 208 State Appropriations EPA Contract funds
	3.1.4 Develop additional self-monitoring requirements for bioassays and toxic constituents, to be used in developing wasteload allocations	NJDEP, DWR: 1) Monitoring and Planning 2) Enforcement (S) 3) DRBC	Dec. 1980 1981	Draft Regulations Promulgate regulations		NA
3.2 Continue current compliance monitoring activities	3.2.1 DWR will continue NPDES Compliance Evaluation Inspections, follow-up inspections, operation and maintenance inspections, industrial site inspections and 24-hour composite sampling of facilities to assure compliance with NPDES requirements and provide data for enforcement actions	1) USEPA Region II (L) 2) NJDEP, DWR Enforcement (S)	ongoing		USEPA Region II-9 NJDEP - 25	CWA, Section 106 State Appropriation

FIGURE 2-9 Strategies for NPDES Assumption

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
3.3 Continue ambient monitoring	See "Monitoring Intergration"					
3.4 Improve Biological monitoring program	3.4.1 DWR will investigate mechanisms for coordinating bioassays and compliance monitoring and will develop bioassay regulations	NJDEP, DWR: 1) Monitoring and Planning (L) 2) Enforcement (S)	ongoing	Propose regulations	2	CWA, Section 106 State Appropriations
3.5 Improve laboratory capabilities	See "Monitoring Intergration"					
3.6 Improve quality Control	See "Monitoring Intergration"					

Figure 2-9 Strategies for NPDES Assumption

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
4.0 NPDES/INDUSTRIAL DISCHARGES--ENFORCEMENT	4.4.1 Enforce violations of NPDES permits through a coordinated effort between EPA and DEP	1) USEPA - Region II (L) 2) NJDEP, DWR, Enforcement				
4.1 Continue to take appropriate enforcement actions	4.1.2 Report non-filters for an NPDES permit to EPA for Enforcement action	NJDEP, DWR, Enforcement (L)				
Reference EPA/NJDEP Enforcement Agreement-under development	4.1.3 Report and take appropriate actions on violations of water quality standards or toxic discharges that have filed for a NPDES permit but have never received one	1) USEPA-Region II (L) 2) Enforcement (L) 3) 208 agencies (S) 4) Monitoring & Planning 5) DRBC	ongoing		USEPA Region II-5 NJDEP-19	
	4.1.4 Proceed with enforcement actions where appropriate with the enforcement mechanisms available on ground water discharges	NJDEP, DWR: 1) Enforcement (L) 2) Ground Water Management Unit (S)				

Figure 2-9 Strategies for NPDES Assumption

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
5.0 NPDES/INDUSTRIAL DISCHARGES-ADDITIONAL CURRENT ACTIVITIES OF NJDEP, DWR, ENFORCEMENT 5.1 Continue complaint investigations	5.1.1 Provide response to citizen complaints concerning sewage treatment and industrial works	1) NJDEP, DWR, Enforcement (L) 2) Local/County Health Dept. (S) 3) Other State Agencies (S)	1979-1980		4	State Appropriations
5.2 Continue operator evaluations/examinations	5.2.1 Design operator examinations for industrial facilities review operator performance	NJDEP, DWR, Enforcement (L)	ongoing		1	State Appropriations
5.3 Continue activities in shellfish control	5.3.1 Evaluate shellfish growing and harvesting areas as approved or condemned	NJDEP, DWR: 1) Monitoring and Planning Shellfish Unit (L) 2) Monitoring and Planning (S) 3) Office of Hazardous Substance Control (S) Other State Agencies: 4) Marine Services (S) 5) Fish & Game (S)	ongoing		15	

Figure 2-9 Strategies for NPDES Assumption

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	5.3.2 Issue special Harvesting permits	1) NJDEP, DWR, Enforcement (L) Other State Agencies 2) Fish & Game (S) 3) Marine Services (S)	ongoing			
5.4 Provide services under Delaware River Basin Commission Contract	5.4.1 Perform 24-hour sampling under contract with DRBC on various dis-chargers in the Delaware Basin	1) NJDEP, DWR, Enforcement (L) 2) DRBC (S)	ongoing		1	DRBC

Figure 2-9 Strategies for NPDES Assumption

2.4.2 Industrial Pretreatment

The objective of the industrial pretreatment program is to abate, via regulation, the discharge of toxic, inhibiting, or interfering wastes to publicly-owned treatment works. Data acquisition, program development, and regulatory development strategies have been developed to meet this objective. These strategies, and their corresponding activities, will be implemented over the coming years by the NJDEP DWR's Water Quality Management element, with input from Construction Grants Administration; Enforcement Element; and USEPA Region II.

Industrial pretreatment has been incorporated into the interim agreement for NJDEP's assumption of the NPDES program. It will also be part of the Working Agreements between NJDEP and EPA for NPDES program assumption. NJDEP will develop pretreatment compliance schedules during the next year, as part of the interim agreement.

The strategies developed in this section by NJDEP and USEPA Region II have been developed to meet the program development needs associated with realizing industrial pretreatment objectives. These needs include:

- Overall program development.
- modifying the New Jersey Pretreatment Act of 1972 to clarify enforcement responsibility concerning industries that discharge to systems which in turn discharge to a POTW.
- NJDEP will receive a 201 grant to develop a Statewide Pretreatment Management Program. The grant tasks are as follows:
  - statewide industrial waste survey
  - expansion of Wastewater Management Information System
  - development of pretreatment residual management plan
  - prepare local pretreatment programs for non-grant areas.
  - prepare environmental analysis of pretreatment program
- developing formal and informal coordination mechanisms with interstate agencies such as the Delaware River Basin Commission and the Interstate Sanitation Commission to facilitate implementation of the industrial pretreatment program in the areas of New Jersey where such agencies have jurisdiction.

Figure 2-10 presents the strategies for the industrial pretreatment program and the associated activities, organizational responsibilities, timing, outputs, man-years and sources of funds.

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.0 INDUSTRIAL PRETREATMENT - DATA ACQUISITION 1.1 Maintain wastewater data base		1) NJDEP, DWR, WQM			3	State appropriation CWA, Sec. 106, 208
2.0 INDUSTRIAL PRETREATMENT - PROGRAM DEVELOPMENT 2.1 Develop and implement Statewide Industrial Pretreatment Program	2.1.1 Promulgate Sludge Quality Assurance Regulations	1) NJDEP, DWR, WQM 2) NJDEP, Solid Waste Administration	Completed 1/80	Sludge Quality Assurance Regulations	2	State appropriation CWA, Section 106, 208
	2.1.2 Develop and promulgate general prepretreatment regulations	1) NJDEP, DWR, WQM 2) NJDEP, DWR, Enforcement	1980	General Pretreatment Regulations	2.75	State appropriation CWA, Section 106, 208
	2.1.3 Prepare guidelines for performance of 201 Industrial Waste Surveys	1) NJDEP, DWR, WQM 2) NJDEP, DWR, CGA	Completed 1980	Guidelines	2.75	State appropriation CWA, Section 106, 208

Figure 2-10 Strategies for Industrial Pretreatment

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	2.1.4 Submit application to USEPA for assumption of State Pretreatment Program	1) NJDEP, DWR, Water Quality Management	1980-1981	Pretreatment grants (201)	6	
	2.1.5 Develop compliance schedules for NPDES permits which have been identified that pretreatment is necessary	1) NJDEP, DWR, WQM 2) EPA	1980			
	2.1.6 Apply for 201 grant as designated 208 Management Agency for Pretreatment for following activities: - Complete industrial waste survey for areas of State not withing POTW Pretreatment Program purview	1) NJDEP, DWR, WQM (L) 2) NJDEP, DWR, SWA 3) EPA	1980-3 Jan. 1982		16.6	CWA 201 grant State appropriation

Figure 2-10 Industrial Strategies for the Pretreatment Program

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	- Expand Wastewater Management Information System to accept industrial waste survey data		Jan. 1982			
	- Develop regional and statewide centralized waste treatment and disposal alternative		Jan. 1983			
	- Prepare environmental analysis of pretreatment program		July 1983			
	- Prepare local program guidance including model pretreatment ordinance		July 1983	Environmental Impact Statement		
	- Develop local pretreatment program for non-grant POTW's areas		July 1983	Model Ordinance		

Figure 2-10 Industrial Strategies for the Pretreatment Program

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
2.2 Determine extent to which 201 funds will be available for performance of IWS's	2.2.1 Apply for appropriate level of funding	1) NJDEP, DWR, WQM 2) NJDEP, DWR, CGA	1980		.25	State appropriation CWA, Section 106, 208
	2.2.2 Negotiate funding with EPA	1) NJDEP, DWR, WQM 2) USEPA Reg. II	1980		.25	State appropriation CWA, Section 106, 208
2.3 Develop coordination mechanisms with appropriate intrastate agencies	2.3.1 Identify appropriate agencies	1) NJDEP, DWR, WQM	1980 1982		.25	State appropriation CWA, Section 106, 208

Figure 2-10 Strategies for Industrial Pretreatment

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	2.3.2 Draft coordination mechanisms	1) NJDEP, DWR, WQM 2) Agencies as identified	1980 1981		.2	State appropriation CWA, Section 106, 208
	2.3.3 Finalize mechanisms by agreement	1) NJDEP, DWR, WQM 2) Agencies as identified	1980 1981		.45	State appropriation CWA, Sec. 106, 208
2.4 Review industrial pretreatment programs	2.4.1 Determine required funding levels	1) NJDEP, DWR, WQM	1980 1983		16.175	CWA, Sec. 205
2.5 Provide technical assistance and enforcement backup		1) NJDEP, DWR, WQM			8.25	State appropriation CWA, Sec. 106, 208
3.0 INDUSTRIAL PRETREATMENT - REGULATORY DEVELOPMENT	3.1.1 Make legal determination of existing authority under under the Act	1) NJDEP, DWR, WQM	1980		.25	State appropriation CWA, Section 106, 208
3.1 Evaluate mechanisms for strengthening NJ Pretreatment Act of 1972	3.1.2 Prepare conceptual changes to Act to strengthen DEP	1) NJDEP, DWR, WQM	1980		.25	State appropriation CWA Sec. 106,208

Figure 2-10 Strategies for Industrial Pretreatment

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	3.1.3 Draft amendments to the Act	1) NJDEP, DWR, WQM 2) NJDEP, Office of the Commissioner	1980		.4	State appropriation CWA, Sec. 106, 208

Figure 2-10 Strategies for Industrial Pretreatment Program

2.5 Water Supply

2.5.1. Groundwater Management

The objective of the groundwater management strategies is to develop a coordinated, integrated groundwater resource management policy and program to protect and preserve the state's groundwater resources for public health, economic growth and development purposes. In regard to both quality and quantity, data acquisition, regulatory/program development, permitting, enforcement and grants administration strategies have been developed. These strategies, and their corresponding activities, will be implemented over the five years by the NJDEP DWR's newly formed Bureau of Groundwater Management, with input and assistance from many other NJDEP programs and USEPA Region II.

The strategies in this section have been developed by NJDEP and USEPA Region II to meet program development needs associated with realizing groundwater management objectives. These needs include:

.development of an integrated state policy and decision-making process to manage and protect groundwater supply and quality

.acquisition of data for both quality and quantity considerations through an integrated information collection and analysis system

.development of groundwater quality standards, effluent limitations, land disposal regulations

.modeling to determine "safe yields" of aquifers

.development and issuance of permits for discharges to groundwater land disposal of sludge and industrial effluents, subsurface disposal, alternative disposal methods and groundwater diversions

.focusing enforcement efforts on dischargers to groundwater, including accidential spills and leaks

.encouraging proper management of on-site disposal through funding Septic System Management Districts.

Figure 2-11 presents the strategies for groundwater management and the associated activities, organizational responsibilities, timing, outputs, man-years, and sources of funds.

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STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.0 GROUNDWATER MANAGEMENT DATA Acquisition 1.1 Develop coordinated program to obtain groundwater quality data and enter date on computer	1.1.1 Water Quality Management Element was choosen lead agency to develop centralized groundwater quality data network, including computerized data management review	NJDEP, DWR, WQM	1980	WQME designated	1.2	CWA, Section Section 106 208 SDWA, TSCA
	1.1.2 Monitor groundwater quality around land fills and certain lagoons, enter data on computer and prioritize for enforcement/cleanup	NJDEP, 1) Solid Waste Administration 2) DWR, WQM	Priorities for addressing inventoried landfills			CWA 208 RCRA
	1.1.3 Monitor groundwater quality associated with effluent disposal on land.	NJDEP, DWR 1) WQM (L) 2) Enforcement Element (S)	FY81 FY82+	Test Case: 50 Permits		CWA Sec. 208-State & Self supporting

Figure 2-11 Strategies for Ground Water Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	1.1.4 Monitor groundwater quality from public supply wells;	NJDEP, DWR 1) WSFPM (L) 2) WQM (S)	1982	Sufficient data necessary to issue approx. 50 NPDES Permits		CWA Sec. 208
	1.1.5 Monitor groundwater quality on toxic substance from random wells;	NJDEP 1) Toxic Substances Program (1) 2) WQM (S)	ongoing	Update "Pollution index" annually		
	1.1.6 Collect ambient groundwater quality data on salt water intrusion	NJDEP 1) U.S. Geological 2) NJDEP, DWR	ongoing			
	1.1.7 Establish ambient groundwater quality network	NJDEP (L) USGS (S) USEPA-S&A (S)			EPA-.1	
	1.1.8 Analyze and review groundwater quality data generated by various agencies Trend analysis of data for prediction of future problems	1) USEPA-S&A 2) DRBC (S) 3) USGS 4) WQME	1982	Annual Status report	EPA-.1	

Figure 2-11 Strategies for Ground Water Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
					EPA-5	
	1.1.9 Review groundwater quality for toxics as requested	NJDEP: 1) Toxic Substances Program (L) 2) DWR, (S) 3) DWR, Bureau of Potable Water (S)	 1980 1986			
1.2 Conduct inventory determine impact of known and potential sources of groundwater pollution	1.2.1 Obtain aerial photography of entire state plot and evaluate pits ponds and lagoons	NJDEP, DWR, Groundwater (L) Solid Waste Administration	1980 1981-86	Surface Impoundments Assessment Completed Evaluated		SDWA RCRA
	1.2.2 Plot groundwater pollution cases on map and update Groundwater Pollution index	1) NJDEP, DWR 2) HMP-OHSC 3) Local Health Depts (S) 4) USEPA, Region II USEPA Water Supply Branch	Annually July Oct. 80 Sept. 80 1980 1983	Pollution index update Sanitary Landfill/ Open Dump Inventory VIC Inventory NPDES Mapping Project		State RCRA SDWA SWA - 106 EPA

Figure 2-11 Strategies for Ground Water Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
			June 80	Hazardous Waste Inventory		RCRA
			Apr 80	Certified Plans		CWA - 208
1.3 Prevent ground-water contamination from injection of wastes through wells.	1.3.1 Inventory and assess impact of subsurface injections	DRW, WQME	Sept 82	Classification of wells Listing		SDWA UIC
	1.3.2 Identify underground sources of drinking water			Listing of sources		SDWA -
2.0 GROUNDWATER MANAGEMENT REGULATORY PROGRAM DEVELOPMENT 2.1 Develop Ground Water Quality Standards	2.1.1 Research other States Water Quality Laws	NJDEP, DWR: 1) WQM (L) 2) USEPA - Region II (S)	1979	Completed		
	2.1.2 Review ambient ground water quality data	1) NJDEP, DWR: WQM 2) USEPA - Region II (S) 3) DRBC (S)		Completed	USEPA Region II-0.2	

Figure 2-11 Strategies for Ground Water Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	2.1.3 Promulgate ground-water quality standards	NJDEP, DWR: 1) WQM (1) 2) Toxic Substance Program (S) 3) NJ Solid Waste Administration 4) USEPA-Region II 5) DRBC	Sept. 1980 1980	Public Hearing Adopt Standards	NJDEP DWR 1	CWA, Section 208-
2.2 Map acquifes in northern part of the State to allow protective zoning to protect ground-water recharge and quality	2.2.1 Begin mapping using field and giophysical mapping techniques. Map carbonate aquifers on several quadrangle maps and recommend how aquifers may be protected 2.2.2 Compile well inventories in major aquifers	1) NJDEP, DWR (1) 2) USGS (S) 3) NJ Bureau of Geology 4) USEPA-Region II	1980-1985 1981-82 Jan 81-	Produce Aquifer maps with texts and recommend land use Map Carbonate deposits in Warren Essex Co. -geohydrologic evaluation complete	USEPA Region II -1.	CWA, Section 108 1976 Water Bond SDWA-1979-
			Mar 81 Jun 81	Recharge area described Inventory Complete		

Figure 2-11 Strategies for Ground Water Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	2.2.3 Develop land use ordinances on triassic rocks based on mapping	1) NJDEP, DWR Office of Area-wide Planning (L) 2) 208 Agencies (L) Sussex 208 - 3) NJDEP, DWR 4) Middlesex Mercer - Somerset Study Council	Dec 82 Dec 82	Land use ordinances	NJDEP DWR-4	CWA Section 208
2.3 Develop interim groundwater effluent discharge standards	2.3 Research other states regulations	1) NJDEP, DWR, WQM	1980 1981	Draft Regulations Promulgate regulations		CWA 208 state appropriations
2.4 Develop effluent land disposal guide lines to prevent groundwater pollution	2.4.1 Research other State guidelines	NJDEP, DWR: 1) Enforcement 2) WQM (S) 3) NJDA Soil Conservation Committee	1979 1980	Report		
	2.4.2 Draft land disposal guidelines	1) NJDEP, DWR: a) WQM (L) b) (S)				Federal Grant appropriations

Figure 2-11 Strategies for Ground Water Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES, OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
		c) HS&E (SO) 2) USEPA Construction Grants (S) 3) DRBC 4) NJDA Soil Conservation Committee	1980	Guidelines in draft		
	2.4.3 Send draft out for review to all DEP agencies	1) WQM (L) 2) Enforcement (S) 3) (S)	1980			
	2.4.4 Promulgate land disposal guidelines	1) WQM (L) 2) Enforcement (S) 3) DRBC (S)	1981	Final guidelines		(see above)
2.5 Evaluate saltwater intrusion along Coastal areas and where connate water is moving due to pumpage.	2.5.1 Develop groundwater quality models	1) USGS (L) 2) NJDEP, DWR (S)	1980-1985	Annual	.5/yr	CWA, Section
	2.5.2 Obtain additional saltwater intrusion data necessary to develop model including drilling monitor wells	1) USGS 2) NJDEP, DWR (S) 3) Water Supply & Flood Plan Mgt. 4) Systems Analysis wasteload allocations	1980-1985			

Figure 2-11 Strategies for Ground Water Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	2.5.3 Operate models to obtain best management options	1) NJDEP, DWR (L) 2) USGS (S) 3) Bureau of Water Supply Plan & Management (S) 4) System Analysis wasteload allocation				
2.6 Reduce the amount of illegal dumping of septage throughout the State	2.6.1 Develop regulations which require all major subdivisions to certify that there is a facility which will accept septage before a permit for subsurface sewage disposal is issued.	NJDEP, DWR 1) ORA (L) 2) WQM 3) OGA	Jun 1980	NJAC 7:14-5.1 et. seq		
	2.6.2 Require facilities for septage at all funded STPs.	NJDEP, DWR: 1) OGA (L) 2) WQM (S)	ongoing			
2.7 Develop underground injection control permit program	2.7.1 Review existing legislation	NJDEP, DWR, WQM (L) USEPA (S)	1981	Primacy	1/yr.	SOWA
	2.7.2 Apply for primacy		April 1981			
	2.7.3 Permit program development		1981-1982			

Figure 2-11 Strategies for Ground Water Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
2.8 Develop Construction standards for gasoline storage tanks.	2.8.1 Review literature to determine if construction standards exist.	NJDEP, DWR	1984		.25	State
	2.8.2 Prepare construction standards for gasoline storage tanks	NJDEP, DWR	1984		.25	State
	2.8.3 Develop regulatory authority requiring local municipalities to incorporate standards into the local building code.	NJDEP, DWR	1985		.25	State

Figure 2-11 Strategies for Ground Water Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
3.0 GROUNDWATER MANAGEMENT PERMITTING 3.1 Issue permits to solid waste handling and disposal facilities, including sludge and septage. Review applicants' design to minimize groundwater pollution	3.1.1 Review application and engineering data	NJDEP: 1) Solid Waste Administration (L) 2) WQM (L) 3) Div. of Fish & Game (S)	1980-1985	Permit reviews as submitted	1.5/yr	RCRA State appropriated
	3.1.2 Obtain additional geologic and hydrologic data as necessary. Data requested either by SWA or WQM through SWA.	NJDEP: 1) Solid Waste Administration (L) 2) DWR, WQM (S)				
	3.1.3 Review completed application for groundwater pollution potential and make binding recommendations to SWA regarding aquifer protection including monitoring	1) NJDEP: a) WQM (L) b) Solid Waste Administration (S) 2) USEPA, Region II (S)				
	3.1.4 Issue test case permit with provisions required by Bureau Gro Water Management	NJDEP: 1) WQM (L) 2) SWA (S)	FY81 FY82	Approx. 50 permits		CWA: 208

Figure 2-11 Strategies for Ground Water Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
3.2 Issue permits for land disposal of sludge, effluents and subsurface injection	3.2.1 Review application and engineering data	NJDEP, DWR: 1) WQM (L) 2) CGA (S)				
	3.2.2 Inspect site, req. additional geologic soil or hydrologic data. Make recommendations to SWA	1) NJDEP, DWR: a) WQM (L) b) CGA (S) 2) USEPA, Region II (S)	1980-1985	Review and investigates as submitted	1 yr	CWA Section 201 State appropriation permit fees (test case permits funded under 208)
	3.2.3 Issue NPDES permits including recommendations from Bureau of Groundwater Management	NJDEP, DWR: 1) WQM (L) 2) CGA (S)				
3.3 Issue permits for land disposal of industrial effluents	3.3.1 Review application engineering data	NJDEP, DWR: 1) WQM (L) 2) CGA (S)				
	3.3.2 Inspect site, request additional geologic soil or hydrologic data. Make recommendations on feasibility and operation	1) NJDEP, DWR: a) WQM (L) b) Enforcement 2) USEPA, Region II (S)	1980 1985	Reviews and investigations as submitted incorp. underground inject. per. into NJDES permits	1 yr	CWA, Section 106, 201, 205G, State appropriation test case permits funded under Section 208

Figure 2-11 Strategies for Ground Water Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	3.3.3 Issue permit with provisions required by Bureau of Ground Water Management	NJDEP, DWR 1) CGA (L) 2) Ground Water Management (S)				

Figure 2-11 Strategies fo· Ground Water Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
3.4 Issue permits for subsurface disposal (septic systems) in critical area, subdivisions over 50 units, schools, hospitals, campgrounds and trailer parks. Permits issued primarily to protect public health except in Pine Barrens Critical Area where ground water quality standards also must be met	3.4.1 Review application for impact of project on public health and ground water quality	NJDEP, DWR: 1) Bur. of Ground Water Mgt. (L) 2) WQM (S)	1980-1985	Permits as required	3.5/yr	State Appropriation
	3.4.2 Request additional geologic, soil or ground water data	NJDEP, DWR, Ground Water Mgt.				
	3.4.3 Issue permit					
	3.4.4 Conduct hearings on denied applications	NJDEP, DWR: 1) Ground Water Mgt. (S)				
3.5 Issue permits for alternate designs to conventional septic systems to prevent health problems and ground water pollution in non-sewered (cont'd...)	3.5.1 Review alternate design submitted by engineer through local health authority	1) NJDEP, DWR: a) Ground Wtr. Mgt (L) b) CGA (S) 2) Local Health Authority (S)				

Figure 2-11 Strategies for Ground Water Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
(3.5 cont'd) areas, and allow limited development where land does not meet subsurface sewage disposal regulations	3.5.2 Review mechenical aspects of design (if any) which require experties in wastewater facilities design	1) NJDEP, DWR: a) WQM (L) b) CGA (S) 2) Local Health Authority (S)	1980-1985		1/yr	State Appropriation CWA, Sec. 208
	3.5.3 Issue permit with any required monitoring provisions	1) NJDEP, DWR, WQM 2) Local Health Authority (S)				
	3.5.4 Review monitoring data from alternate designs					
	3.5.5 Develop approved alternate designs	NJDEP, DWR: 1) WQM (L) 2) 208 Planning (S)				

Figure 2-11 Strategies for Ground Water Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
3.6 Issue S.P.C.C. Permits for major facilities. One provision includes ground water monitoring at major facilities to prevent ground water pollution	3.6.1 Review S.P.C.C. application and determine if ground water monitoring is necessary. If monitoring is required, request monitoring plan	NJDEP: 1) Office of Hazardous Substance Control (L) 2) WQM (S)	1981			Spill fund
	3.6.2 Review ground water monitoring proposal and draft permit requirements		1980-1985		.3/yr	State Appropriation
	3.6.3 Issue Permit					
	3.6.4 Review monitoring data					
3.7 Issue permits for UIC	3.7.1 Review applications for waste disposal by well	NJDEP 1) WQM	1982			SDWA State Appropriation

Figure 2-11 Strategies for Ground Water Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	3.7.2 Conceptual approval as to feasibility of well disposal (issue a well drilling permit for construction only)					
	3.7.3 Review of detailed application for well injection as to impact on public health, water quality, construction characteristics of well and type of scheduling of monitoring employed.					
	3.7.4 Request for additional information.					
	3.7.5 Re-submission of application with additional information					
	3.7.6 Denial or approval of operational permit.					

Figure 2-11 Strategies fc · Ground Water Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
4.0 GROUNDWATER MANAGEMENT ENFORCEMENT 4.1 Pursue enforcement actions against solid waste facilities polluting ground water	4.1.1 Review monitoring data and determine extent of contamination and probable source	1) NJDEP: a) DWR, WQM (L) b) Solid Waste Administrations (S) c) Enforcement d) Wat. Sup. & flood Plan Mgt. (S) e) OCTSR 2) Division of Hazardous Substance Control (S) 3) USEPA, Region II (S) 4) DRBC (S)	1981-1986			
	4.1.2 Take enforcement action and supervise clean-up	NJDEP: 1) Solid Waste Administration (L)				

Figure 2-11 Strategies for Groundwater Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	4.1.2 (con't)	2) DWR: a) Enforc (S) b) WQM (S)				
	4.1.3 Modify, design or close down sources of pollution	1) NJDEP a) Solid Waste Admin. (L) b) DWR, Enforc. (S) c) DWR, WQM (S) 2) NJ Attorney General	1980-1985		2/yr	State Appropriation

Figure 2-11 Strategies for Groundwater Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	4.1.4 Monitor Pollution	NJDEP: 1) DWR, Enforcement (L) 2) DWR, Ground Water Mgt. (S) 3) DWR, Bur. Potable Wtr (S) 4) Solid Waste Admin. (S)				
4.2 Pursue enforcement actions against industrial or sewage dischargers polluting ground water	4.2.1 Review monitoring data and determine extent and seriousness of ground water pollution	1) NJDEP, DWR; a) Bur. of Ground Water Mgt (L) b) Enforcement c) Bur. of Potable Water (S) d) OCTSR e) PWF (S) 2) USEPA, Reg II (S) 3) DRBC (S)				
	4.2.2 Take enforcement action and supervise clean-up	1) NJDEP, DWR, a) Enforcement (L) (Cont'd...)	1980-1985		3/yr	CWA, Sec. 105 State Appropriation

Figure 2-11 Strategies for Ground Water Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	4.2.2 cont'd)	b) Bur. of Ground Water Mgt (S) c) PWF (S) 2) NJ Attorney General (S)				
	4.2.3 Modify design or close down polluter	NJDEP, DWR: 1) Enforcement (L) 2) CGA (S) 3) Ground Water Mgt. (S)				
	4.2.4 Monitor pollution and/or abatement	NJDEP, DWR; 1) Enforcement (L) 2) PWF (S) 3) Ground Water Mgt. (S)				

Strategies for Ground Wa er Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
4.3 Pursue enforcement actions against municipalities failing to enforce septic systems regulations, and other on-site subsurface sewage disposers polluting groundwater	4.3.1 Review pollution data	1) Local Health Authority (L) 2) NJDEP, DWR: a) WQM (S) b) Enforcement				
	4.3.2 Take enforcement action and modify source of contamination	1) Local Health Authority (L) 2) NJDEP, DWR: a) WQM (S) b) Enforcement (S)	1980 1985		DFP-1 yr EPA-.1/yr	CWA, Sec. 106 State appropriation
	4.3.3 Take enforcement and mitigation action where local health authority fails to act	1) NJDEP, DWR a) Enforcement b) WQM (S)				

Figure 2-11 Strategies for Groundwater Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	4.3.3 (con't)	2) NJ Att. General (S)				
	4.3.4 Monitor as necessary	1) Local Health Authority (L) NJDEP, DWR a) WQM (S) b) Enforcement				

Figure 2-11 Strategies for Groundwater Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
4.4 Pursue enforcement actions against parties responsible for spills of hazardous or toxic substances into ground water	4.4.1 Respond to spill and take action as required to contain contaminant and prevent further contamination	1) Off. of Hazardous substance Control (L) 2) Bur. of Ground 3) Enforcement (S)				
	4.4.2 Take enforcement action against polluter	1) Off. of Hazadous substance Control (L) 2) Bur. of Ground Water Mgt. (S) 3) Enforcement (S) 4) NJ Att. General (S)				
	4.4.3 Clean-up ground water	1) Off. of Hazardous Substance Control (L) 2) Bur. of Ground Water Mgt. (S) 3) Enforcement (S) 4) USEPA, Region II (S)	1980-1985		2/yr	CWA, Sec. 106 TSCA RCRA State Appropriation

Figure 2-11 Strategies for Ground Water Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
(4.4 continued)						
	4.4.4 Monitor clean-up of ground water	1) NJDEP, DWR: a) Enforcement (L) b) Bur. of Ground Water Mgt. (S) 2) Off. of Hazardous Substance Control (S) 3) USEPA, Region II (S)				

FIGURE 2-11 Strategies for Ground Water Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
5.0 GROUNDWATER MANAGEMENT PROGRAM INTEGRATION	5.1.1 Review plans submitted by agencies which apply to become septic system management districts	NJDEP, DWR: 1) CGA (1) 2) WQM (S) 3) 208 Planning (S)				
	5.1.2 Obtain necessary technical geologic, hydrologic and soil data necessary to review project and make recommendations	1) NJDEP DWR: a) WQM (1) b) CGA (S)	1980 1985		2/yr.	CWA, See 201
	5.1.3 Review completed application and accept or reject proposal. All districts must have method of septage disposal	NJDFP, DWR 1) CGA (1) 2) Bur. of Ground Water Mgt. (S) 3) 208 Planning (S)				

Figure 2-11 Strategies for Ground Water Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
6.0 GROUND WATER SUPPLY DATA ACQUISITION	6.1.1 Review monitoring well data, including USGS network-add or substract monitoring wells	NJDEP, DWR, Bur. of Ground Water Management	1980 1985	Annual status report	1/yr	SDWA State Appropriation
6.1 Determine status of ground water levels in all major aquifers	6.1.2 Install water level monitoring equip. in key wells 6.1.3 Measure water level in selected wells	1) USGS (L) 2) NJDEP, DWR, Bur. of Ground Water Management (S)		Water Purveyor Quarterly Reports		
	6.1.4 Conduct synoptic water level measurement periodically where aquifers are stressed	1) USGS (S) 2) NJDEP, DWR, Bur. of Ground Water Mgt. (S)				
	6.1.5 Drill new monitor wells where sufficient data is needed and existing wells are unsatisfactory	1) NJDEP, DWR, Bur. of Ground Water Mgt. (L) 2) USGS (S) 3) USEPA (S)				

Figure 2-11 Strategies for Ground Water Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	6.1.6 Review new diversion applications to ascertain if applicant should be required to drill a monitor well as a condition to the diversion	1) NJDEP, DWR, Bur. of Ground Water Mgt. (L) 2) USGS (S)				
6.2 Obtain good pumpage data from all major aquifers in order to correlate with water level data	6.2.1 Request legislation which will require all "grandfather" supplies to report pumpage	NJDEP, DWR, 1) Bur. of Water Water Supply Planning & Management (S) 2) Bur. of Ground Water Mgt. (S)				

Figure 2-11 Strategies for Ground Water Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	6.2.2 Computerize all groundwater pumpage data from wells over 100,000 C.P.D.	1) NJDEP, DWR, a) Bureau of Water Supply Planning & Mgt. (L) b) Bureau of Potable Water (S) c) WQM (S) 2) U.S.G.S. (S)	1981	Capability to input into Nat'l USGS data system		
	6.2.3 Locate all wells capable of pumping over 100,000 G.P.D. on map(a) which also shows yield	1) NJDEP, DWR: a) Bureau of W.S. Planning (L) b) Bureau of Potable Water (S) c) Bureau of W.S.P.&M. (S) d) WQM (S) 2) U.S.G.S. (S) 3) Geological Survey (S)				
7.0 GROUNDWATER SUPPLY - REGULATORY/PROGRAM DEVELOPMENT	7.1.1 Operate USGS models to provide the best management of aquifers	1) NJDEP, DWR: a) WQM (L)	1980 1985	Yearly report	DEP-1 yr. EPA-1 yr.	CWA, Sec. 208 SDWA 1976 Bond State Appropriation

Figure 2-11 Strategies for Ground Water Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
7.1 Determine "safe yields" or optimum yields of aquifers which have been modeled	7.1.2 Write reports on Results of pumping aquifers in various patterns and quantities, make recommendations	b) Bureau of Potable Water (S) c) Systems Analysis-Wasteload Allocation d) Bureau of Water Supply Planning and Mgt. (S) 2) U.S.G.S. (S) 3) USEPA, Region II (S) 4) DRBC (S)	1980 1981 1985	Monitoring equipment purchased Data inventories Model Complete		
	7.1.3 Adopt aquifer strategy for diversion grants	1) Water Policy and Supply Council (L) 2) NJDEP, DWR: a) WQM (S) b) Systems Analysis-Wasteload Allocation (S) 3) DRBC (S)	1980 1981 1981	English-town Farrington R-Magothy		

Figure 2-11 Strategies for Groundwater Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	7.1.4 Determine extent of ground water supplies with estimate of potential need to abandon certain supplies	1) NJDEP DWR a) WSMP b) WRP & M 2) DRBC	1981-1986			
	7.1.5 Develop ground water supply abandonment criteria		1982			
7.2 Evaluate safe yields: or optimum yield of aquifers in areas where modeling is not practicable	7.2.1 Map northern valleys contain substantial sand and gravel, utilizing geophysics existing data and a few test wells on U.S.G.S. quadrangles	1) NJDEP, DWR, Bureau of Groundwater Mgt 2) U.S.G.S. (S) 3) Bureau of Geology (S) 4) USEPA, Region II (S)	1980-85	2-4 quads/ yr/	EPA-.1	CWA 208
	7.2.2 Map rock aquifers to evaluate and protect high yield or recharge areas for future development	1) NJDEP, DWR, Bureau of Groundwater Mgt. 2) U.S.G.S. (S) 3) Bureau of Geology (S) 4) USEPA, Region II, (S) 5) Universities (S				

Figure 2-11 Strategies for Groundwater Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	7.2.3 Construct aquifer models in valleys containing substantial quantities of waterbearing sediments	1) WQM (L) 2) U.S.G.S. (S)				
	7.2.4 Estimate yield of various rock acquifers from well records, borings, geophysical data, physical properties of formations and surface hydrology	1) WQM (L) 2) USEPA, Region II (S) 3) DRBC (S)				
7.3 Evaluate sole source designation where appropriate	7.3.1 Review petitions for designation	1) EPA Region II water supply branch (c) 2) NJDEP DWR WQME (S)	1981 1981 1981	Ridgewood decision Upper Rockaway decision Coastal Plain decision		SDWA
	7.3.2 Review federal assistance projects in designated areas	1) USEPA Region II (L) 2) NJDEA (S) 3) NJDEP DWR WQME (S)				

Figure 2-11 Strategies for Groundwater Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
8.0 GROUNDWATER SUPPLY PERMITTING 8.1 Ensure that "safe yield" or optimum yield of various acquifers will not be exceeded by new grant diversions	8.1.1 Review important groundwater diversion applications 8.1.2 Operate models where available 8.1.3 Make recommendations to WP&S Council	NJDEP, DWR, WSFPME (L) WQM (S) DRBC (S)	1980-85		1/yr.	State Appropriation 1976 Bond

Figure 2-11 Strategies for Groundwater Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
8.2 Issue permits for groundwater diversions which will not deplete or contaminate aquifers.	8.2.1 Conduct hearings on the diversion application	1) Water Pol. & Sup. Council (L) 2) NJDEP, DWR a) WSFPMF (S) b) WQM (S) 3) U.S.C.S. (S) 4) DRBC (S)				
	8.2.2 Review groundwater date and operate model if applicable. Make recommendations to Water Policy and Supply Council on major diversions	1) NJDEP, DWR; a) WSFPMF (L) b) Bureau of Potable Water (S) c) WQM (S) 2) U.S.C.S. (S) 3) DRBC (S)				
	8.2.3 Permit for ground water diversion issued with stipulation or denied	1) Water Pol. & Sup. Council (L) 2) NJDEP, DWR: a) Bureau of Potable Water (S)				

Figure 2-11 Strategies for Ground Water Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
(8.2.3 continued)		b) WQM (S) (S) c) Bureau of Water Sup. P & M (S) 3) DRBC (S)				
	8.2.4 Require all diversions to have adequate waste disposal	1) Water Pol. & Sup. Council (L) 2) NJDEP, DWR; a) Enforcement b) (S) b) WQM (S) c) Bureau of Potable Water (S)				

Figure 2-11 Strategies for Ground Water Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
9.0 GROUNDWATER SUPPLY-ENFORCEMENT 9.1 Assure that ground-water diversion grants are not being exceeded or that the existing diversions are causing water quality or quantity problems	9.1.1 Operate aquifer model for diversion granted and check against water quality	1) NJDEP, DWR, WSFPME (L)				
	9.1.2 Put all pumpage and diversion grants on computer which will flag permits exceeding grants	2) U.S.C.S. (S)	1980-85		DEP-1/yr	State Appro-
	9.1.3 Cut back grants where they are excessive or if they threaten the the short-term safe yield or water quality	1) Water Pol. & Sup. Council (L) 2) NJDEP, DWR;				
	9.1.4 Require all ground-water diverters to report static and pumping levels from all their wells and enter data on computer which should be run annually for trends.	a) Bureau of Water Sup. b) WQM (S)				

Figure 2-11 Strategies for Ground Water Management

2.5.2 Water Supply Management and Conservation

Water supply managment and conservation objectives are focused on developing an integrated approach to ensuring adequate quantity and acceptable quality of water delivered to consumers and controlling the quality of water available for development. Data acquisition, program development, regulatory program development, grants administration and public participation strategies have been developed to meet such objectives for this particular water resource management problem. These strategies, and their corresponding activities, will be implemented during the coming years by the NJDEP, DWR Water Supply Master Planning effort, with input from the Bureau of Water Resources Planning and Management, Bureau of Potable Water and local government.

The strategies developed by NJDEP in this section have been developed to meet issue and program development needs associated with realizing water supply management and conservation objectives. These needs include:

- .ensuring the quantity and quality of water delivered to consumers, while controling the quantity of water available for development
- .structuring the water supply program to anticipate and effectively react to emerging water supply problems
- .developing a revised institutional legislative and administrative framework for handling regulatory problems and responsibilities
- .development of an integrated water supply and water quality information system
- .developmentof a groundwater strategy
- .better groundwater management capabilities
- .involving the public in water supply and conservation decisions

Figure 2-12 presents the strategies for water supply management and conservation and the associated activities, organizational responsibilities, timing, outputs, man-years and sources of funds.

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.0 WATER SUPPLY MANAGEMENT CONSERVATION - DATA ACQUISITION	1.1.1 Analyze current water supply and water quality information systems of DWR	1) NJDEP, DWR a) Water Supply Planning b) Monitoring & Planning	1980			
1.1 Develop specifications for the establishment of a water supply and water quality information system.	1.1.2 Make recommendations and provide assistance for making overall system operational	1) NJDEP, DWR a) Water Supply Planning b) Water Resources Monitoring & Planning	1981-1982		2.5	
	1.1.3 Coordinate and link to MSIS and Office of Quality Assistance	1) NJDEP, DWR a) Water Supply Planning b) Water resources Monitoring and Planning c) Bureau of Potable Water	1982			
	1.1.4 Maintain and operate data and information system	1) NJDEP, DWR a) Water Supply Planning b) Monitoring & Planning	1982	System operates by 1982		

Figure 2 -12 Strategies for Water Supply Management and Conservation

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.2 Develop required surface water data	1.2.1 Develop contents and methodology for conduct of watershed management plans, including hydrologic water budgets for surface streams and groundwater aquifers (coordinate with 208,201 & 303(e) and potable water)	1) NJDEP, DWR, a) Water Supply Planning b) Monitoring & Planning	1980			
	1.2.2 Conduct watershed management plans for following basins Wallkill River, Musconetcong River, Crosswicks Creek, Rancocas Creek Maurice River	1) NJDEP, DWR a) Water Supply Planning b) Monitoring & Planning	1980			
	1.2.3 Conduct plans for remaining basins in State. Coordinate with proposed facilities approval mechanism	1) NJDEP, DWR a) Water Supply Planning b) Monitoring & Planning	Start 1982			

Figure 2 - 12 Strategies for Water Supply Management and Conservation

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	1.2.4 Prepare monthly status Reports on major reservoirs in State	Water Supply Planning	1980			

Figure 2 - 12 Strategies for Water Supply Management and Conservation

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
2.0 WATER SUPPLY MANAGEMENT CONSERVATION - PROGRAM DEVELOPMENT	2.1.1 Analyze needs for groundwater investigation	1) NJDEP, DWR a) Water Supply Planning b) Monitoring & Planning 2) DRBC	1980			
2.1 Develop better ground water management capability					.3	
	2.1.2 Recommend programs for expended computer simulation aquifer modeling in coastal plain and geologic mapping in north western New Jersey	1) NJDEP, DWR a) Water Supply Planning b) Monitoring & Planning 2) DRBC	1980			
	2.1.3 Recommend programs for monitoring groundwater use	1) NJDEP, DWR a) Water Supply Planning b) Monitoring & Planning	1980		.3	

Figure 2 - 12 Strategies for Water Supply Management and Conservation

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	2.1.4 Recommend studies for determining the inter relationship of ground and surface water and for determining the quantitative extent of grandfather rights (groundwater)	1) NJDEP, DWR a) Water Supply Planning b) Monitoring & Planning 2) DRBC	1980			
	2.1.5 Analyze legal and in stitutional problems relating to grand-father rights and recommend means for modifying or altering vested rights	1) NJDEP, DWR, a) Water Supply Planning b) Monitoring & Planning	1980			
	2.1.6 Develop groundwater management guide-lines	See Above 2.1.6 c) Bureau of Potable Water	Start 1981		1	

Figure 2 - 12 Strategies for Water Supply Management and Conservation

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	2.1.7 Maintain and utilize computer simulation models of groundwater aquifers and surface water systems to assist WP & SC in making plan and permit approvals.	See Above 2.1.8 2) USGS	Start 1980		4	
2.2 Develop comprehensive water conservation program, including development of water supply and shortage contingency plans	2.2.1 Analyze potential impact of alternative conservation policies and programs	1) NJDEP, DWR Water Supply Planning 2) NJDEP, DWR Monitoring & Planning 3) DRBC	1980			
	2.2.2 Recommend long term conservation policies and programs	1) NJDEP, DWR, Water Supply Planning 2) DRBC	1983		1	
	2.2.3 Initiate bench and field testing of specific water conservation devices	1) NJDEP, DWR Water supply Planning 2) Monitoring & Planning 3) Localities	1981			

Figure 2 - 12 Strategies for Water Supply Management and Conservation

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	2.2.4 Initiate evaluation of effectiveness of and develop performance standards for specific water conservation devices	1) NJDEP, DWR Water Supply Planning 2) Monitoring & Planning 3) Localities	1981			
	2.2.5 Determine capabilities of each major water system to sustain intensive one-year and multi-year droughts	1) NJDEP, DWR, Water Supply Planning 2) NJDEP, DWR, Monitoring & Planning	1980			
	2.2.6 Propose new systems interconnections	1) NJDEP, DWR, Water Supply Planning 2) NJDEP, DWR, Monitoring & Planning 3) Bureau of Potable Water	1982			
	2.2.7 Perform Hydraulic tests for existing system interconnections	1) Water Purveyors	Start 1982			

Figure 2 - 12 Strategies for Water Supply Management and Conservation

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	2.2.8 Analyze ability of water systems to back up others on emergency and long term basins	1) NJDEP, DWR Water Supply Planning 2) NJDEP, DWR Bureau of Potable water	1980			
	2.2.9 Recommend water system rehabilitation program	1) NJDEP, DWR Water Supply Planning 2) Bureau of Potable Water				
2.3 Develop comprehensive institutional management framework	2.3.1 Analyze stationary framework for WP&SC allocation responsibilities to formulate constituent elements of a comprehensive diversion rights law; and evaluate feasibility of allowing the reservation of diversion rights into the future and make recommendations based on evaluation	1) NJDEP, DWR Water Supply Planning 2) NJDEP, DWR Monitoring & Planning 3) NJDEP, DWR Bureau of Potable Water	1980		1	

Figure 2 - 12 Strategies for Water Supply Supply Management and Conservation

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	2.3.2 Analyze WP & SC's legally mandated functions and recommend regulations to govern WP & SC's operations and procedures in deliberations over applications for diversion and plan approvals	1) NJDEP, DWR Water Supply Planning 2) NJDEP, DWR, Monitoring Planning 3) NJDEP, DWR, Bur. of Potable Water	1980		.3	
	2.3.3 Analyze WP & SC's legally mandated functions and recommend a set of water-related fees to generate revenues sufficient to cover costs of water supply regulation and administration. (Include recommendations for economic deterrents against over drafting.)	1) NJDEP, DWR, Water Supply Planning 2) NJDEP, DWR, Monitoring Planning 3) NJDEP, DWR, Bur. of Potable Water	1980			

Figure 2 - 12 Strategies for Water Supply Management and Conservation

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	2.3.4 Request WP&SC to adopt procedures by SWSMP for adoption of and update of Master Plan	1) NJDEP, DWR, Water Supply Planning 2) NJDEP, DWR, Monitoring & Planning 3) NJDEP, DWR, Bureau of Potable Water	1981		.15	
	2.3.5 Request WP&SC to adopt procedures by Water Supply Planning for adoption of Management recommendations	Water Supply Planning M&P	1981		.15	
	2.3.6 Analyze relationship between PUC and DWR to improve coordination and to recommend principles for use by DWR in taking a public position in BPU rate cases.	1) NJDEP, DWR, Statewide Water Supply Master Plan 2) NJDEP, DWR, Water Resources Planning & Management 3) NJDEP, DWR, Bureau of Potable Water	1980	Subtask 8C	.1	

Figure 2 - 12 Strategies for Water Supply Management and Conservation

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
2.4 Develop a groundwater strategy which reflects state priorities and National and Regional EPA groundwater	2.4.1 An official policy statement on priority of a groundwater strategy development and implementation	NJDEP, DWR Water Supply Planning (L) Water Quality Element (S)				SDWA WRC Title III
	2.4.2 Formal coordination mechanisms among bureaus, divisions, Units, Agencies, etc. involved.	NJDEP, DWR, Water Supply Planning (L) Water Quality Element (S)				
	2.4.3 An analysis of program deficiencies and needs	NJDEP, DWR, Water Supply Planning (L) Water Quality Element (S)				
	2.4.4 Detailed descriptions of types of activities milestones, timeframes to be carried out in order to put a groundwater protection program inplace	NJDEP, DWR, Water Supply Planning (L) Water Quality Element (S)				
	2.4.5 Funding for program development and implementation	NJDEP, DWR, Water Supply Planning (L) Water Quality Element (S)				

Figure 2-12 Strategies for Water Supply Management and Conservation

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	2.4.6 Role of Public	NJDEP, DWR, Water Supply Planning (L) Water Quality Element (S)				
	2.4.7 Provide Headquarters and Regional Ground-water Protection Strategies as assistance documents	USEPA Water Supply Branch (S)				
	2.4.8 Provide technical assistance in the development of the strategy	USEPA Water Supply Branch (S)				
	2.4.9 Assist states in securing funds to develop and implement the strategy	USEPA Water Supply Branch (S)				

Figure 2-12 Strategies for Water Supply Management and Conservation (con't.)

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
3.0 WATER SUPPLY MANAGEMENT AND CONSERVATION REGULATORY PROGRAM DEVELOPMENT						
3.1 Water Policy and Supply Council Activities	3.1.1 Request WP&SC to adopt management-related recommendations and watershed plans completed and utilize same in making plan and permit approvals.	SWSMP, WRP&M	1980		.15	
	3.1.2 Request WP&SC to order interconnections in emergencies.	SWSMP, WRP&M Bureau of Potable Water	As needed			
3.2 Allocate waters of the State	3.2.1 Evaluate applications for water diversion grant approvals in equitable and efficient manner.	1) NJDEP, DWR, Water Policy & Supply Council 2) NJDEP, DWR, Bureau of Potable Water 3) DRBC	On-going		1.0	State
	3.2.2 Administer well permit program.	1) NJDEP, BWSP 2) NJDEP, DWR, Bureau of Potable Water 3) NJDEP, DWR, WP&SC				

Figure 2 - 12 Strategies for Water Supply Management and Conservation

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	3.2.3 Improve enforcement of metering requirements in WP&SC permit and plan approvals	1)NJDEP, DWR Water Policy & Supply Coun. 2)NJDEP, DWR, Bureau of Potable Water	Start 1980			
3.3 Maintain safe and aesthetically pleasing drinking water for residents of State	3.3.1 Administer well permit program	1)NJDEP, BG&T 2)NJDEP, DWR, BPW 3)NJDEP, DWR WP&SC				
	3.3.2 Provide technical assistance and certification supervision (laboratories and treatment plant operators)	NJDEP, DWR, Bureau of Potable Water	On-going			

Figure 2 - 12 Strategies for Water Supply Management and Conservation

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
3.4 Assume primacy under National Safe Drinking Water Act	3.4.1 Adopt State Safe Drinking Water Regulations	NJDEP, DWR, Bureau of Potable Water	Achieved 1979	ongoing		
	3.4.2 Expand surveillance and inspection of public community and non-community water purveyors	NJDEP, DWR, Bureau of Potable Water	ongoing			
	3.4.3 Develop public education program for water conservation	1) NJDEP, DWR, Water Supply Planning 2) NJDEP, DWR, Bureau of Potable Water 3) NJDEP, DWR, Monitoring & Planning	Start 1981		.4	
	3.4.4 Prepare and publish brochures and other material on conservation	1) NJDEP, DWR, Water Supply Planning 2) NJDEP, DWR, Bureau of Potable Water 3) NJDEP, DWR, Monitoring & Planning	Start 1981			

Figure 2 - 12 Strategies for Water Supply Management and Conservation

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
3.5 Evaluate State grant policy in terms of achievement of water supply/quality objectives	3.5.1 Review Green Acres program and recommend policies to better integrate land acquisition with water resources objectives	1) NJDEP/Green Acres 2) Monitoring & Planning/ Designated Agency 3) NJDEP/Water Supply Planning 4) Water purveyors	1981	Report & Policy	.5-1	CWA, Sec. 208 State Appropriations

Figure 2 - 12 Strategies for Water Supply Management and Conservation

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
4.0 WATER SUPPLY MANAGEMENT AND CONSERVATION GRANTS ADMINISTRATION	4.1.1 Distribute proposed State-funneled, federal grant funds for technical assistance on water conservation to counties and localities if sufficient funds are made available	1) NJDEP, DWR, Water Supply Planning 2) NJDEP, DWR, Monitoring & Planning	1982		1	

Figure 2 - 12 Strategies for Water Supply Management and Conservation

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
5.0 WATER SUPPLY MANAGEMENT AND CONSERVATION - PUBLIC PARTICIPATION 5.1 Develop public participation and intergovernmental coordination program for water supply management and conservation		1) NJDEP, DWR, Water Supply Planning 2) NJDEP, DWR, Monitoring & Planning and Management	1980-1984		2	

Figure 2 - 12 Strategies for Water Supply Management and Conservation

5.3 Public Water System Supervision

Public water system supervision objectives are oriented towards ensuring that adequate quantities of safe drinking water are provided to the citizens of New Jersey. Strategies, including data acquisition, program implementation, regulatory program development, and maintenance of primacy under the federal Safe Drinking Water Act have been developed to meet these objectives. The strategies, and their corresponding activities will be implemented during the coming years by the NJDEP and USEPA Region II, within the limitations of fiscal support provided by State appropriations and the Federal Grant awarded pursuant to the Federal Safe Drinking Water Act.

The strategies in this section have been developed to meet the program needs associated with realizing public water system supervision objectives, and include:

- developing adequate monitoring capabilities for safe drinking water
- focusing compliance and enforcement efforts for effective treatment of water utilities
- control of toxics in drinking water supplies

The strategies represent a joint NJDEP/USEPA Region II effort, with the State playing a primary role in supervising public water systems and enforcing drinking water regulations. USEPA Region II will continue to provide grants and technical assistance while developing new regulations, standards and guidelines for contaminants in drinking water.

Figure 2-13 presents the strategies for public water system supervision and the associated activities, organizational responsibilities, timing, outputs, man-years and sources of funds.

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.0 PUBLIC WATER SYSTEM SUPERVISION 1.1 Maintain Primacy under Federal Safe Drinking Water Act	1.1.1 Review and approve plans for public water systems.	1) Bureau of Potable Water 2) W.P.& S. Council	on-going	100% submitted	4.5	State appropriation and Federal grant for all categories.
	1.1.2 Inspect and monitor water systems				7	$540,100 (Federal) $305,044 (State)
	a) Conduct Initial Inspections	1) Bureau of Potable Water	on-going	500 annually		
	b) Conduct Routine Inspections	1) Enforcement Element 2) Bureau of Potable Water		500 annually		
	c) Conduct Joint Surveys	1) E.P.A. 2) Bureau of Potable Water		As requested by E.P.A. (Anticipate 12)		

Figure 2-13 Strategies for Public Water System Supervision

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	d) Special Investigations	1) Bureau of Potable Water			Approx 300/yr	
	e) Conduct Detailed Community Water System Evaluations			24 annually		
	1.1.3 Achieve compliance with National Primary Drinking Water Regulations.				2.5	
	a) Reduce percentage of non-reporting purveyors	1) Bureau of Potable Water 2) Enforcement Element	1981 1982	90% reporting 95% reporting		
	b) Assure adequate public notification for MCL violations	1) Bureau of Potable Water 2) Enforcement Element	on-going	100% notifications		

FIGURE 2-13 Strategies for Public Water System Supervision

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	c) Develop compliance schedules for repeated MCL violators	1) Bureau of Potable Water 2) Enforcement Element	1981	100%		
	d) Require water supplies to monitor for T.T.H.M.	1) Bureau of Potable Water	1981	Supplies 75,000+		
		2) Enforcement Element	1983	Supplies between 10,000 & 75,000		
	e) Issue Commissioners orders where necessary		1981	Anticipate 25/yr		
	1.1.4 Complete Inventory of Public Non-Community Systems.	1) Bureau of Potable Water	on-going	500 additional per year	2	

FIGURE 2-13 Strategies for Public Water System Supervision

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	1.1.5 Require Compliance with NIPDWR by verified Public Non-Community Systems	1) Bureau of Potable Water 2) Enforcement Element	on-going	500 annually	2	
	1.1.6 Maintain existing Lab. Certification Program.	1) Quality Assurance 2) Bureau of Potable Water Central Collection and Licensing and E.P.A.	on-going	65 inspections annually		
	1.1.7 Assure adequate training programs for staff and water system operators.	1) Bureau of Human Resources 2) Bureau of Potable Water Central Collection and Licensing	on-going		1	
	1.1.8 Refine MSIS to meet State/EPA needs. Maintain data management system	1) Bureau of Potable Water 2) E.P.A. Bureau of Automated Systems	1981	submit annual report to E.P.A. by Dec. 1, 1980	4.5	

FIGURE 2-13 Strategies for Public Water System Supervision

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	1.1.9 Conduct disease - surveillance program.	1) Department of Health 2) Bureau of Potable Water 3) E.P.A.	on-going As	As needed	0.5	
	1.1.10 Maintain a public participation program.	1) Bureau of Potable Water 2) Division of Water Resources 3) E.P.A.	on-going	As needed	0.5	
	1.1.11 Administer program.	1) Water Supply and Flood Plain Management Element 2) Bureau of Potable Water 3) E.P.A.	on-going		3.5	
	1.1.12 Evaluate emergencies as needed	1) Bureau of Potable Water 2) E.P.A.	1981	Anticipate 50/yr		

FIGURE 2-13 Strategies for Public Water System Supervision

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
2.0 CONTROL OF TOXICS IN DRINKING WATER.						
2.1 Correlate toxics monitoring program with other monitoring activities.	2.1.1 Non-routine sampling of drinking water for suspect organic chemical contamination.	1) Bureau of Potable Water 2) Toxic Substances Program 3) E.P.A.	on-going			
	2.1.2 Correlate major sources of priority pollutants with location of existing water supply.	1) Bureau of Potable Water (5) 2) Water Purveyors (5)	on-going	Provide info to water industry		
	2.1.3 Require closing of wells, use of alternate sources of supply or installation of effective treatment.	1) Bureau of Potable Water 2) Toxic Substances Program, State Department of Health, EPA	on-going			

FIGURE 2-13 Strategies for Public Water System Supervision

2.5.4. Water Quality/Water Supply Integration

The integration of water quality/water supply concern, often interrelated in a complex manner, is essential for developing and implementing effective water resources decisions. Data Acquisition, regulatory/program development and grants administration strategies have been developed to meet the objective of water quality/water supply intergration. The strategies, and their corresponding activities, will be implemented over the next years by the NJDEP Division of Water Resources Water Supply Master Plan and Water Resources Planning and Management Element will input from 208 Agencies, water purveyors and USEPA Region II.

The strategies developed in this section by NJDEP and USEPA Region II have been developed to meet the needs associated with integrating water quality/water supply concerns. These needs include:

- a data collection effort to enable rational long-term planning for quality/quantity issues
- determination of future water supply demands and their efforts on water quality
- determination of future wastewater treatment facilities needs and their efforts on potable water supplies
- evaluation of current Federal and State water supply and waste treatment grant programs in terms if achieving intergration goals.

Figure 2-14 presents the strategies for controlling industrial discharges and the associated activities, organizational responsibilities, timing, outputs, man-years and sources of funds.

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.0 DATA ACQUISITION 1.1 Determine quality of potential water supplies with respect to toxics, to enable rational long term planning for quality/quantity issues	1.1.1 Systematically sample for toxics in each potable watershed and major aquifer. Intensive surveys will be undertaken on a priority basis with input and participation of water purveyors. Data interpretation will feed into policy making for water quality/supply programs	1) NJDEP 2) Water Purveyors	on-going	See Toxics Strategy		
	1.1.2 Set priority list for intensive surveys	1) NJDEP, DWR, Monitoring & Planning 2) Water Purveyors	1980	See Monitoring Strategy		
	1.1.3 Undertake surveys and interpret data	Varies	1980	Report 208 Plan Amendment		CWA, Sec. 208

Figure 2-14 Strategies for Water Quality/Water Supply Integration

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.2 Ascertain existing water supply (surface and ground) for major systems	1.2.1 Inventory surface supplies	NJDEP, Water Supply Planning DRBC	Completed			
	1.2.2 Select withdrawal limitations (variable assumptions could be made)		1981			Bond Issue
	1.2.3 Inventory ground supplies					

Figure 2-14 Strategies for Water Quality/Water Supply Integration

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
2.0 REGULATORY/PROGRAM DEVELOPMENT (SUPPLY AND QUALITY)	2.1.1 Demand projections by county and watershed		com-pleted by county			
2.1 Determine future water demand	2.2.1 Project groundwater supply development (use alternative assumptions)					
2.2 Develop supply projections to determine project needs	2.2.2 Project water conservation	NJDEP, Water Supply Planning, DRBC, Planning & Monitoring Element Bureau of Ground Water Management				
	2.2.3 Project completion of existing surface development projects		1980			
2.3 Identify potential projects and generalized feasibility with explicit consideration given to water quality objectives and issues	2.3.1 Consider all project alternatives including reservoir construction (on stream and off stream) water conservation, recycling via AWT sewerage and land application, inter basin transfer of present developed supplies, conjunctive uses, etc.	NJDEP, DWR, Water Supply Planning DRBC Planning & Monitoring				

Figure 2-14 Strategies for Water Quality/Water Supply Integration

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
2.4 Determine overall issues for achievement of water supply/ quality objectives assuming various project alternatives	2.4.1 Evaluate major groupings of supply projects for water quality impact	NJDEP, DWR, Monitoring & Planning DRBC	on going		1	CWA, SEC. 208
	2.4.2 Identify general tradeoffs between supply-quality objectives (consider mixing vs. separation of "pure" supplies, reservoir eutrophication, impact of reduction of flow, additional cost and feasibility of wastewater reuse, etc.)	NJDEP, DWR: 1) Water Supply Planning 2) Planning & Monitoring DRBC				
	2.4.3 Evaluate State-sponsored water supply projects through the completion of environmental analyses					
	2.4.4 Choose optimum combination of supply projects for further study	NJDEP, DWR: 1) Water Supply Planning 2) Monitoring & Planning 3) DRBC	on going		1	CWA, Sec. 208

Figure 2-14 Strategies for Water Quality/Water Supply Integration

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
2.5 Project needs for wastewater treatment by county and watershed	2.5.1 Projections for sewered and non-sewered areas	1) NJDEP, DWR, Bureau of Water Resource Planning and Management 2) 208 Agencies	on going	Detailed facility plans		CWA, SEC. 201
2.6 Identify issues in providing adequate water supply to meet sewerage needs	2.6.1 For approved projects, design flow vs. water supply		1980	Report	1	CWA, Sec. 205 (g)
	2.6.2 Develop policy to resolve problems/ conflict caused by overdesigned sewerage systems	NJDEP, DWR: 1) Monitoring & Planning 2) Water Supply Planning	as needed	DWR policy		CWA, Sec. 205 (g)
2.7 Develop policies to encourage maximum reuse and intra basin resource development in sewerage programs	2.7.1 Evaluate adequacy of existing policy	NJDEP, DWR: 1) Monitoring &	1980	Report	1	CWA, Sec. 205
	2.7.2 Proposed changes and develop policy documents and requirements for sewer program	2) Water Supply Planning		DWR policy	3	

Figure 2-14 Strategies for Water Quality/Water Supply Integration (cont'd)

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
2.8 Review past sewerage program decisions affecting water supply to determine regulatios	2.8.1 Identify projects in which water supply goals were adversely affected by sewerage programs	NJDEP, DWR, Water Supply Planning	1981	Report	.5	CWA, Sec. .205 (g)
	2.8.2 Identify issues in EPA requirements which discourage wastewater reclamation and intra basin water resource development based on review of key projects	USEPA, Region II	1980	Regional Policy	.5	CWA, Sec. 208 SDWA
	2.8.3 If necessary prepare changes in EPA policy	USEPA, Headquarters	1980		.5	
2.9 Determine relative impact of development on quality of water supplies especially with regard to toxics	2.9.1 Carry out comparative evaluation of water quality in different watersheds as compared to land use	1) NJDEP, DWR, Water, Resource Planning and Management 2) PECTS	1981-1982			CWA, Sec. 208 State Appropriation

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
2.10 Project water quality problems of potable watershed	2.10.1 This is a research task that needs to be further outlined	NJDEP, DWR, Water Resource Planning and Management				
2.11 Evaluate potential to use existing programs to better protect water quality in potable watersheds	2.11.1 Evaluate the following mechanisms: -water quality standards for toxics -establish waste-load allocation procedures for toxics -aquifer recharge area protection program -spills program -technology based effluent limits for toxics	2) PECTS 3) DRBC 4) Monitoring & Planning 5) EPA	1980 1980	Amendments to 208 plans Sole Source-Chatham Buried Valley Designation	.5	CWA, Sec. 208

Strategies for Water Quality/Water Supply Integration

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
3.0 GRANTS ADMINISTRATION 3.1 Modify sewer grant requirements if necessary to better reflect water supply objectives	3.0.1 Evaluate the following mechanisms: -water quality standards for toxics -establish wasteload allocation procedures for toxics -aquifer recharge area protection program -spills program -technology based effluent limits for toxics					
3.2 Develop balanced approach in Federal programs between water supply and waste treatment	3.2.1 Carry out case study for New Jersey on impact of sewer program on water supply development and evaluate Federal sources of funds for water supply	USEPA, Region II	1980	Report to Congress	1	CWA, Sec. 201

Figure 2-14 Strategies for Water Quality Integration

2.5.5 Purveyor Deficits/Fragmentation of Water Supply Network

The objective of purveyor deficits/fragmentation of water supply network strategies is to develop a comprehensive plan to meet existing water supply deficits and assume sufficient supplies to meet projected needs. Data Acquisition, resource development and regulatory program development strategies have been formulated to meet such objectives for this particular water resource management problem. These strategies, and their corresponding activities will be implemented by the State Water Supply Master Plan and DWR's Bureau of Water Quality Planning and Management, among others.

The strategies developed in this section by NJDEP have been developed to meet program development needs associated with realizing the above objectives. These needs include:

- a comprehensive data acquisition program for both purveyor deficits and fragmentation of the water supply, network, oriented towards determining and projecting needs and developing contingency plans

- acquiring sites and designing and contructing facilities

- developing regulatory policies and procedures oriented towards withdrawl limitation, emergency interconnections and small water purveyor assistance.

Figure 2-15 presents the strategies for purveyor deficits/fragmentation of the water supply network and the associated ativities, organizational responsibilities, timing, outputs, man-years and soruces of funds.

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.0 PURVEYOR DEFICITS - DATA ACQUISITION	1.1.1 Develop water demand projections and revise as needed	NJDEP, DWR: 1) Water Supply	1980		2.5	
1.1 Propose alternative for meeting water supply needs by: recommending projects and programs to meet short term needs (7-12 yrs.); and evaluating projects for meeting medium and long term needs (30-50 yrs)	1.1.2 Determine withdrawal limitations on the basis of risk analysis					
	1.1.3 Develop data bank on potential projects and programs to meet needs					
	1.1.4 Evaluate potential projects through hydrologic analysis					
1.2 Recommend long term conservation policies and programs	1.2.1 Analyze potential impacts of alternative conservation policies and programs	NJDEP, DWR: 1) Water Supply Planning	Phase I - 1980 Phase II 1981-83			
1.3 Evaluate effectiveness of and develop performance standards for specific water conservation devices	1.3.1 Conduct field testing of specific water conservation devices	1) NJDEP, DWR: a) Water Supply Planning 2) Localities	1981			

Figure 2-15 Strategies for Purveyor Deficits/Fragmentation of Water Supply Network

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.4 Recommend approach for generating front-end capital for state sponsored projects	1.4.1 Analyze alternatives for funding future state sponsored water projects	NJDEP, Water Supply Planning	1980-1981			
2.0 PURVEYOR DEFICITS - RESOURCE DEVELOPMENT 2.1 Recommed needed state sponsored water supply development projects 1980-1985	2.1.1 Acquire site and design, and construct state sponsored projects	NJDEP: 1) Water Supply Planning 2) Water Facilities Operations	as needed			
3.0 PURVEYOR DEFICITS - REGULATORY PROGRAM DEVELOPMENT 3.1 Implement conservation policies and programs	3.1.1 Request Water Policy and Supply Council to adopt withdrawal limitations and other State Water Supply Master Plan Recommendations and apply plan and permit approvals	1) NJDEP, DWR: a) Water Supply Planning b) Bureau of Potable Water c) Construction Grants Administration 2) Water Policy and Supply Council	1981		.1	

Figure 2-15 Strategies for Purveyor Deficits/Fragmentation of Water Supply Network

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
4.0 FRAGMENTATION OF WATER SUPPLY NETWORK -- DATA ACQUISITION 4.1 Propose new system interconnections	4.1.1 Determine capabilities of each major water system to sustain intensive one-year and multi-year droughts	NJDEP, DWR: 1) Water Supply Planning	1980-1982			
	4.1.2 Coordinate with 201 Facility Planning and 208 water quality planning for hydraulic testing of existing water systems interconnections		1981		.9	
4.2 Recommend contingency plans for water shortages	4.2.1 Analyze ability of water systems to back up others on emergency and long term basis	NJDEP, DWR: 1) Water Supply Planning 2) Bureau of Potable Water				
4.3 Recommend program for water shortages	4.3.1 Gather data and information on problems of small water purveyors					

Figure 2-15 Strategies for Purveyor Deficits/Fragmentation of Water Supply Network

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	4.3.2 Establish procedures for adoption by the Water Policy and Supply Council of water supply plans of regional and other purveyors	NJDEP, DWR: 1) Water Supply Planning	1981-1982		.9	
5.0 FRAGMENTATION OF WATER SUPPLY NETWORK -- REGULATORY PROGRAM DEVELOPMENT	5.1 Request WP&SC to order interconnections in emergencies	NJDEP, DWR: 1) State Water Supply Master Planning	as needed		.3	
	5.2 Request legislature, BPU & DCA to aid implementation of small water purveyor recommendations		1981			

Figure 2-15 Strategies for Purveyor Deficits/Fragmentation of Water Supply Network

2.6 TOXIC SUBSTANCES CONTROL

One of the major goals of NJDEP and USEPA is to protect the public and the environment from exposure to toxic and hazardous substances. The toxic substances area is one which involves traditional media programs including water supply, waste disposal, and other. In pursuing this goal, NJDEP and EPA place primary emphasis on integration and coordination of these ongoing programs that address toxic substances control. This will allow both agencies to focus their sources more efficiently on this important field.

There are six major areas of need in an integrated toxics control program: inventory development, monitoring, regulatory program development, emergency response, enforcement and public participation. With respect to inventory development, effective organization and use of data are essential prerequisites to a scientifically-based toxics control program. Therefore, NJDEP and USEPA Region II must work together to streamline the information gathering and data handling efforts.

Regarding the monitoring of toxic substances, NJDEP and USEPA Region II must enhance the coordination of all toxics-related monitoring activities at the state and federal levels.

On the issue of regulatory program development, comprehensive abatement and control strategies for several program areas are necessary, including industrial and municipal toxic effluents, groundwater contamination, hazardous waste disposal and non-point sources.

NJDEP, with technical and funding assistance from USEPA Region II, must enhance its emergency response capabilities and develop a comprehensive spill prevention program.

Finally, NJDEP and USEPA Region II must jointly develop and implement a comprehensive public participation program for toxic substances, It should provide for effective education and information dissemination, active participation in program planning and priority settings, and direct involvement in the regulatory process.

The above program needs will be met through the following strategies:

(a) INVENTORY DEVELOPMENT:

- NJDEP will conduct a state-wide industrial chemical survey to determine the magnitude and extent of toxic chemicals discharged into the environment.

- NJDEP and USEPA Region II will streamline information reporting requirements so that needed data is obtained while the burden on industry is minimized.

- NJDEP, with assistance from USEPA Region II, will establish an integrated data base to enable rapid evaluation of environmental, health, and source-related information.

(b) MONITORING OF TOXIC SUBSTANCES:

- NJDEP and USEPA Region II will coordinate present monitoring programs to assure that the many ongoing and future monitoring activities will provide comprehensive coverage. A work group, headed by the Surveillance and Analysis Division of USEPA Region II, will be formed to design and coordinate monitoring activities (i.e., identifying goals, setting priorities, defining the actual monitoring program, and establishing responsibilities.

- USEPA Region II recognizes the need for enhanced toxic substances analytical capability by the State and will provide for the development within NJDEP of adequate laboratory capabilities and facilities for analysis of toxic substances.

- NJDEP will participate in USEPA's mandatory quality assurance program for all toxics-related monitoring and analytical activities.

(c) REGULATORY PROGRAM DEVELOPMENT

i. Industrial Toxic Effluents

- NJDEP and USEPA Region II will implement a memorandum of agreement for the delegation of the NPDES permit program to the State.

- NJDEP will apply best engineering judgment and conduct a comprehensive certification program on those toxic substances or industrial categories for which final EPA effluent guidelines have yet to be promulgated.

- NJDEP and USEPA Region II will evaluate the bioassay-based monitoring requirements and short-term mutagenesis testing procedures for use as regulatory tools.

ii. Municipal Toxic Effluents

- USEPA Region II will support NJDEP's use of funds authorized under Section 201 of the Clean Water Act to develop applicable industrial pretreatment regulations for the discharge of toxic substances into Publicly Owned Treatment Works (POTWs).

- NJDEP will investigate the domestic contribution of toxic substances to POTWs as well as potential toxics formation in the treatment process.

iii. Groundwater Contamination

- NJDEP and USEPA Region II will form a work group to develop a protocol for response to groundwater contamination incidents.

- USEPA Region II and NJDEP will implement an expanded groundwater management program. This program will be responsible for locating, responding to, and preventing groundwater contamination.

- NJDEP and USEPA Region II will work to develop and impose effective controls on sources that pose a threat to groundwaters. The program will work towards adequate clean-up of existing problems as well as adequate enforcement of existing regulatory programs.

- NJDEP, with advice and scientific assistance from USEPA Region II, will implement effective Groundwater Standards, including a groundwater nondegradation policy to provide protection of New Jersey's groundwater resources.

iv. Hazardous Waste

- USEPA will promulgate the regulations identifying hazardous substances and defining testing procedures, and the standards applicable to owners and operators of hazardous waste treatment, storage, and disposal facilities.

- NJDEP will implement, with the appropriate technical assistance from USEPA Region II, an approved interim authorization plan for Subtitle C of the Resource Conservation and Recovery Act. The plan will provide for program administration, enforcement actions, permitting activities and the related "Manifest System."*

* Assuming the NJDEP will submit an application to USEPA Region II for interim authorization, and that the application would be approved.

- NJDEP and USEPA Region II will coordinate their regulatory activities with respect to landfills, including site approval, monitoring, and control requirements.

- NJDEP and USEPA Region II will continue to identify and control discharges from waste disposal lagoons.

- NJDEP and USEPA Region II will evaluate industrial chemical handling procedures and develop and impose Best Management Practices, where appropriate, to limit the discharge of toxic and hazardous substances.

- NJDEP, USEPA Region II, counties an designated areawide water quality planning agencies will cooperate to identify abandoned waste disposal sites, including old industrial sites, landfills, and chemical dumps. NJDEP and USEPA Region II will develop mechanisms for taking appropriate action to protect public health and the environment where these sources pose problems.

- NJDEP and USEPA Region II will work to protect potable water supplies and other water resources through controls on the siting of industrial and waste disposal facilities.

- NJDEP and USEPA Region II will assess the impact of non-point source-related toxic substance problems and develop and implement effective controls to limit these problems. Specific focus will be given to statewide pesticide usage and the use of chlorinated organic compounds as septic tank degreasers or industrial metal degreasing compounds.

The following units in DEP are responsible for the Hazard Management Program:

Division of Emergency and Hazard Management:

The Office of Hazardous Substances Control was given increased responsibility with the passage of the Lesniak amendment to the New Jersey Spill Compensation and Control Act. This amendment authorized the sum of $3 million toward mitigation of abandoned hazardous waste dump sites. This along with the clean-up of Chemical Control and an increase in the number or reported spills, required an expansion of the staff and a major reorganization. The major functions of the division are now placed in five bureaus:

Bureau of Emergency Response:

This bureau responds to release of petroleum and hazardous substances on a 24 hour a day basis. The response is designed to reduce or eliminate environmental contamination or potential environmental, public health and safety impacts, and to coordinate activities with federal response.

Bureau of Abandoned Sites Management:

This bureau is charged with the successful remediation of abandoned hazardous and toxic material dump sites.

Bureau of Technical Services:

Coordinate the medical review of all appropriate DEP personnel. Establish a mobile laboratory and laboratory procedures. Integrate a data processing system. Lend technical assistance to DEP and local agencies during spill response and other chemical emergencies.

Bureau of Prevention and Planning

Insure that major facilities have an approved spill prevention and response plan. Insure that plans are implemented at those facilities. Update regulations to insure inclusion of all hazardous substances. Coordinate EPA/DEP activities for the State concerning SPCC plans under 40CFR112. Review permits issued by DEP when petroleum and other hazardous substances are involved.

Bureau of Special Projects and Administrative Services:

This bureau is charged with the acceptable resolution of long term, long ranging problems. Develop regulations concerning transportation of hazardous materials. Track spill fund resources. Coordinate enforcement of Hazard Management cases.

(d) EMERGENCY RESPONSE and ACCIDENTAL SPILLS PROGRAM

The accidental discharge of toxic or hazardous substances continues to be a major problem in the protection of the environment and public health. NJDEP will continue to implement aggressive spill response and prevention programs. These programs will be coordinated with those of EPA in order to maximize effectiveness.

The ramifications of aggressive implementation of the program are reflected in the following strategies:

.NJDEP will develop and implement a timely and comprehensive procedure for the indentification of toxics in accidental discharges.

.NJDEP will expand its spill prevention program to minimize accidental discharges through implementation of a regulatory program for technical review and permitting of all major facilities handling toxic or hazardous substances. Designated areawide water quality planning agencies may be funded to develop such a program contingent upon the specific, advance approval of NJDEP and USEPA.

.NJDEP will develop regulatory authority, policies and procedures for adequate prevention of accidental discharges from facilities not covered under the Spill Compensation and Control Act.

.NJDEP and USEPA will notify each other rapidly in the event of actual or potential major incidents. Major incidents shall be considered to be:

a. Discharges involving a threat to human health

b. Discharges involving a moderate to high threat to waterfowl, fish, shellfish, muskrat, and other aquatic or amphibious animals

c. Discharges threatening or involving damage to beaches during the bathing season or otherwise affecting bathing

d. Discharges generating unusual public interest or press coverage because of the hazards involved

e. Discharges which threaten public drinking water supply wells or surface drinking water

f. Those which comply with the definition contained in the National Contingency Plan. Reports of minor spills should continue to be exchanged monthly or sooner if circumstances warrant.

- NJDEP will identify the authorized representative of the State who shall act on behalf of the public as trustee of the natural resources to recover the costs of replacing or restoring natural resources damaged by discharges in violation of Section 311 of the Clean Water Act. NJDEP will also promulgate rules regarding environmental damage assessment and replacement or restoration of natural resources damaged as a consequence of a spill.

- NJDEP and USEPA will periodically and routinely exchange information concerning which facilities are being inspected for spill prevention purposes. Whenever appropriate, State and Federal inspections will be coordinated to avoid duplication of work. NJDEP will annually submit recommendations concerning facilities which should be evaluated by high resolution aerial photography for status of compliance with spill prevention requirements.

- USEPA will seek to reactivate its automated data processing system for spill prevention compliance status so that NJDEP can be advised of facility status.

The implementation of a coordinated NJDEP/USEPA program on accidental discharges of toxic or hazardous substances will minimize the occurrence of such discharges, ensure the rapid cleanup and removal of discharged toxics, and decrease the quantities of toxics released into the environment. These programs will provide improved protection for the environment and the public health of the citizens of New Jersey.

(e) Enforcement:

NJDEP will establish a multi-media enforcement priority committee to coordinate all activities contributing to toxics-related enforcement actions. Decisions on enforcement priorities will be made jointly with EPA.

Figure 2-16 presents the strategies for the Toxic Substance Control Program, and the associated activities, organizational responsibilities, timing, outputs, man-years and sources of funds.

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.0 TOXIC SUBSTANCES DATA ACQUISITION INVENTORY DEVELOPMENT	1.1.1 Coordinate reporting requirements	NJDEP: 1) OCTSR (L) 2) DWR, WQM 3) Solid Waste Administration (L)				
1.1 Ensure that industrial reporting requirements provide useful information wihtout imposing undue burdens on industry.	1.1.2 Conduct TSP Industrial survey	1) NJDEP, OCTSR 2) NJDEP, DWR, WQM (S)	ongoing	10,000 industries to be surveyed-200 chemicals		State appropriations USEPA, R & D Grant
	1.1.3 Conduct Indirect Discharge survey	NJDEP, DWR, WQM	ongoing			
	1.1.4 Conduct Industrial Waste survey	1) NJDEP, DWR, WQM (L) 2) USEPA-Region II (S) 3) DRBC	1980	Development of regulation	USEPA Region II .5	State Appropriation 205g
	1.1.5 Develop sludge Quality Assurance Program	NJDEP, DWR, WQM (L)	1980	Completed Regulations		

Figure 2-16 Strategies for Toxic Substances Control

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	1.1.6 Develop Hazardous Waste Manifest	1) NJDEP, Solid Waste Administration (L) 2) USEPA-Region 11 (S)			USEPA Region 11 .2	State Appropriation RCRA
	1.1.7 Spill reporting	NJDEP, Hazard Management	on going			
1.2 Improve data organization	1.2.1 Computerized data base, e.g. for toxic substances and industrial pretreatment and sludge data	1) NJDEP, OCTSR (L) 2) NJDEP, DWR, WQM 3) Statewide Water Supply Master Plan (L) 4) NJDEP, All DWR elements (S) 5) NJDEP, Solid Waste Aministration (S) 6) NJDEP, Bureau of Planning and Automated Systems (S) 7) NJDEP, Division of Fish, Gane and Wildlife 8) USEPA - Region 11 (S)	on-going		USEPA Region 11 .1 USEPA Region 11 .1	

Figure 2-16 Strategies for Toxic Substances Control

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
2.0 TOXIC SUBSTANCES MONITORING 2.1 Coordinate toxics monitoring programs with other monitoring activities.	See "Monitoring Integration," Toxic Monitoring					
2.2 Evaluate the adequacy of present laboratory facilities and make plans for future needs						
2.3 Ensure quality assurance in sample collection and analysis						
3.0 TOXIC SUBSTANCES REGULATORY/PROGRAM DEVELOPMENT 3.1 Develop and integrated approach using technology-based, water quality-based and effluent-based limitations	3.1.1.1 BAT effluent standards	1) USEPA-Washington (L) 2) NJDEP, DWR, Enforcement (S) 3) NJDEP, DWR, WQM (L)	1980	65 priority pollutants, 21 Industrial categories		

Figure 2-16 Strategies for Toxic Substances Control

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
3.1.1 Technology-based limitations	3.1.1.2 Expand expertise in the engineering control of toxic effluents	NJDEP, DWR, Enforcement (L)	1980 1981			
	3.1.1.3 Review N.J. industries to determine those not covered by EPA categories	1) NJDEP, DWR, WQM (L) 2) NJDEP, OCTSR (S) 3) Enforcement (S) 4) USEPA-Region 11 (L)	1980 1981		USEPA-Region 11 .3	
	3.1.1.4 Develop technology control measures for industries of Particular concern	1) NJDEP, DWR, WQM (L) 2) USEPA-Region 11 (L)	1980 1981		USEPA Region 11 .5	
	3.1.1.5 Identify chemicals of concern not covered by EPA regulations	1) NJDEP, OCTSR 2) NJDEP, DWR, WQM 3) NJDEP, DWR, 4) USEPA-Region 11 (S)	1980 1981		USEPA Region 11 .3	

Figure 2-16 Strategies for Toxic Substances Control

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	3.1.1.6 Consider technology and/or water quality based controls for additional chemicals	NJDEP: 1) DWR, WQM (L) 2) DWR, Monitoring and Planning (S) 3) OCTSR (S)	1980 1981			
3.1.2 Water quality based limitations	3.1.2.1 Develop water quality criteria	USEPA-Washington DC				
	3.1.2.2 Review and adopt criteria		1980		USEPA Region 11 .05	
	3.1.2.3 Review data on toxic substances found in NJ waters and adopt additional standards that are necessary	1) NJDEP, DWR, Monitoring and Planning (L) 2) NJDEP, OCTSR (S) 3) NJDEP, DWR, WQM (S) 4) USEPA Region 11 (S) 5) DRBC	1980		USEPA Region 11 .05	

Figure 2-16 Strategies for Toxic Substances Control

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	3.1.2.4 Use intensive stream studies and wasteload alocations to identify cases where water quality based standards would be useful		1980 1981			
3.1.3 Bioassay based standards	3.1.3.1 Evaluate fish bioassays as a general regulatory tool to be be used by DWR		1980 1981		USEPA Region 11 .05	
	3.1.3.2 Use fish bioassays on a limited basis in specific enforcement actions 3.1.3.3 Expand use of short-term mutagenic assays as a regulatory tool	1) NJDEP, DWR, Monitoring and Planning (L) 2) NJDEP, (S) 3) NJDEP, DWR, Enforcement (S) 4) USEPA Region 11 (S)	on-going 1979 1983			

Figure 2-16 Strategies for Toxic Substances Control

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
3.2 Develop an approach to effluent control tailored to New Jersey's needs; allocating resources to the most pressing problems	3.2.1 Develop a list of high priority facilities 3.2.2 Identify chemical that the State should focus on, and develop best control approaches for problems	1) NJDEP, DWR, Enforcement (L) 2) USEPA-Region 11 (L) 3) NJDEP, DWR, Monitoring and Planning (S) 4) OCTSR (S)	1979 1980		USEPA Region 11 .2 USEPA Region 11 .3	
3.3 Control discharge of industrial effluents in POTWs	SEE "INDUSTRIAL PRE-TREATMENT"		1980		USEPA Region 11 .5	
3.4 Obtain CWA, Sec. 201 funds for evaluating toxics problems	3.4.1 EPA will investigate the use of 201 funds for toxics problems	USEPA-Region (L)	1981			CWA, Sec. 201
3.5 Investigate toxics due to wastewater chlorination and household discharges	TO BE DEVELOPED	1) USEPA - Region 11 (L) NJDEP: 2) Monitoring and Planning (L) 3) OCTSR (L)	1982		USEPA Region 11 .1	

Figure 2-16 Strategies for Toxic Substances Control

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
3.6 Develop a comprehensive program to deal with toxic contamination of groundwater	3.6.1 Working group on groundwater contamination	NJDEP 1) OCTSR (L) 2) DWR, WQM(L) M & P (S) 3) DWR, Bureau of Potable Water (S) 4) DWR, Enforcement (S) 5) 6) State Health Dept. (S) 7) NJDEP, Solid Waste Administration (S) 8) USEPA-Region II (S) 9) DRBC	1980 1981	NJPDES Regulations and Ground Water Quality Standards	USEPA Region II .2	
	3.6.2 Investigate mechanisms for funding groundwater program	USEPA - Region II (L)	1980		USEPA Region II .3	State Appropriations RCRA

Figure 2-16 Strategies for Toxic Substances Control

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	3.6.3 "Action" levels for groundwater contaminants	1) NJDEP, OCTSR (L) 2) NJ Department of Health (S) 3) USEPA-Region II (S)	1980		USEPA Region II .5	
	3.6.4 Implementation of water quality stanards for toxic contaminants in groundwater	1) NJDEP, DWR, Monitoring and Planning (L) 2) NJDEP, OCTSR (S) 3) USEPA Region (S)	1980		USEPA Region II .1	

Figure 2-16 Strategies for Toxic Substances Control

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	3.6.5 Effluent limitations for activities which directly contaminate groundwater	1) NJDEP, DWR, WQM (L) 2) NJDEP, DWR, Enforcement 3) NJDEP, DWR (S) M&P 4) USEPA - Region II (S) 5) DRBC	1980-1981		USEPA Region II .4	RCRA
	3.6.6 List sources likely to result in groundwater contamination and collect and analyze well samples	1) NJDEP, DWR, Monitoring and Planning (L) 2) NJDEP, OCTSR (S) 3) NJDEP, DWR, Enforcement (S) 4) NJDEP, Solid Waste Administration (S) 5) USEPA - Region II (S)	1980 1981		USEPA Region II .45	

Figure 2-16 Strategies for Toxic Substances Control

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	3.6.7 Draft regulations for industrial site good management practices	1) NJDEP, DWR, Bureau of Potable Water (L) 2) NJDEP, Hazard Management (S) 3) USEPA - Region II (S)			USEPA Region II .3	
	3.6.8 Control siting of industrial facilities to protect potable water supplies	1) NJDEP, DWR, Bureau of Potable Water (L) 2) NJDEP, DWR, (L) 3) NJDEP, DWR, Monitoring and Planning 4) NJDEP, OCTSR (S) 5) USEPA - Region II (S)			USEPA Region II .4	State Appropriation

Figure 2-16 Strategies for Toxic Substances Control

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	3.6.9 Pits, ponds and lagoons survey	1) NJDEP, Solid Waste Administration (L)			USEPA Region II .1	State appropriations RCRA, SDWA
	3.6.10 New landfills approval	2) NJDEP, DWR, WQM (S) 3) USEPA-Region II (S.)			USEPA Region II .1	State appropriations
3.7 Develop a comprehensive management control program for hazardous substance.	3.7.1 Establish environmental investigation unit to identify toxic substances field problems	1) NJDEP, OCTSR 2) NJDEP, all relevant units (S.) 3) USEPA-Region II (S.)				
	3.7.2 Survey of abandoned landfills	1) NJDEP, Hazard Management (1.) 2) NJDEP, Solid Waste Administration (1.) 3) NJDEP, DWR WQM (S)	1980-1981	Inventory Detailed Studies	USEPA Region II 1.0	State appropriations RCRA, TSCA

Fiuge 2-16 Strategies for Toxic Substance Control

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
		4) USEPA-Region II (S)				
	3.7.3 Review other old industrial sites and chemical dumps.	1) USPEA) Region II NJDEP: 2) Hazard Management 3) Solid Waste Administration 4) DWR, Enforcement 5) DWR, DWQ				
	3.7.4 USEPA will promulgate the regulations under sections 3.001 and sections 3.004 of RCRA.		1980			
	3.7.5 NJDEP will implement and interim authorization plan under section C of RCRA.		1980-1983			

Figure 2-16 Strategies for Toxic Substance Control

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
3.8 Assess the presence of toxics in non-point sources of pollution and formulate the appropriate control strategies.	3.8.1 Emphasize the assessment of non-point sources of toxics in developing water quality plans.	1) NJDEP, DWR Monitoring Planning (1) 2) 208 Agencies 3) NJDEP, OCTSR (S) 4) N.J. Soil Conservation Service (S) 5) USEPA-Region II (S) 6) DRBC			USEPA Region .2	
	3.8.2 Review data on contamination of groundwater by chlorinated organic compounds used as septic tank degreasers.	1) NJDEP, DWR Monitoring Planning (L) 2) NJDEP, OCTSR (L) 3) USEPA Region II (L)				
4.0 TOXIC SUBSTANCES-PUBLIC PARTICIPATION	4.1.1 Toxic substances public participation pilot project	1) NJDEP DWR, office of Areawide planning (L)			USEPA Region .5	

Figure 2-16 Strategies for Toxic Substance Control

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
4.1 Develop a public participation program to inform and educate citizens and provide a forum for obtaining public input to program planning, priority setting and regulatory process.	4.1.2 208 Agencies	Cont. 2) NJDEP, OCTSR (L) 3) USEPA Region II (L)				

Figure 2-16 Strategies for Toxic Substance Control

2.7 Non-Point Sources

2.7.1 Stormwater Runoff Urban/Suburban Areas

Traditionally, pollution problems have been considered as a result of point source discharges from municipal and industrial wastewater plants. In urban and suburban areas the pollutant loadings from stormwater runoff can be just as significant as point source discharges. Progress is being made toward better management of municipal and industrial wastes; however, unless the volume and quality of stormwater is also better managed, complete restoration of waterways in developed areas may be impossible.

Stormwater problems of existing urban and suburban areas should be distinguished from the pollution problems associated with construction, mining, and farming. The latter activities tend to involve land disturbance which leads to problems associated with erosion. By contrast the urban/suburban stormwater issues concern permanent alterations of natural drainage conditions, in which volumes of stormwater are increased by the presence of impermeable surfaces (e.g., roads, roofs, and parking lots). Pollution results because of storm runoff picks up substances on the surface of the roads (e.g., illegal pollution discharges to drainage systems). The stormwater management problem is particularly problematic in areas where the sewer system is combined, i.e., where human wastes and stormwater are disposed through the same pipelines. In these systems, major storms often results in the discharge of raw sewage into receiving waters.

Stormwater control measures, especially in built-up areas, are marginal or unknown.

However, where technically possible, control of stormwater quality in existing development, because it means alternation of existing drainage systems, tends to be much more expensive than in new development, where sound management techniques can be more easily applied as the drainage systems are designed and constructed. A preventive approach to management of water quality effects of stormwater is less expensive than a remedial approach. In areas where development is expected to occur, application of stormwater management techniques can prevent future water quality degradation.

Traditionally, stormwater management has been viewed solely in terms of drainage and flood control. Today, however, water quality and supply (e.g., aquifer recharge) are beginning to be recognized as important considerations in drainage decisions. Many agencies hold responsibilities for aspects of stormwater; however, their roles in the framework of a comprehensive stormwater management program, one that considers the full range of water resource implications, needs to be clarified. Separate programs will be undertaken to deal with the problems of new, existing, and combined stormwater systems.

To deal with these problems effectively, the following strategies will be pursued:

(a) For new systems:

- The Delaware Valley Regional Planning Commission (DVRPC), responsible for WQM planning for the Tri-County study area (Burlington, Camden, Gloucester) has undertaken basic investigations. The agency has developed a stormwater management manual, in cooperation with the NJDEP and other agencies, which examines the relationship between stormwater control techniques and water quality. Conventional drainage techniques will be compared with other techniques, such as stormwater detention/retention (e.g., vegetative areas or holding ponds). Factors such as cost, safety, aesthetics, and effectiveness for reducing pollution will be considered.

- A group of technical advisors, composed of county and local officials and other technical experts from around the State, has assisted DVRPC in preparing the manual.

- Based on the findings of DVRPC, a model stormwater management program will be developed by NJDEP for recommended adoption by counties in the State. This program will continue to be refined in the future by appropriate agencies.

- NJDEP will review the model program in order to elevate the need for changes in the NJDEP Flood Control and Stream Encroachment Permit Programs.

- NJDEP will undertake three major projects as part of its FY-80 program to develop an effective management program for mitigating stormwater runoff. These projects will deal with: bacterial contamination of estuaries; stormwater toxic control; and regional detention basins.

(b) For existing systems:

- Based on the findings of the WQM plans, NJDEP and WQM agencies will do intensive studies to determine the extent of the problems.

- NJDEP will develop a model program of county and local surveillance for illegal discharges into stormwater systems, based upon the New Jersey Environmental Health Services Act.

- The USEPA, through the ccompletion of various National Urban Runoff Program studies will "transfer" critical cause-effect and BMP effectiveness data to DVRPC & NJDEP when available.

(c) For combined sewers:

- See Municipal Waste - Combined Sewer Overflow strategy

Regulatory controls for new and existing stormwater systems will continue to rest primarily at the county and local level. The incorporation of water quality and supply factors into the decision making process should result in better management of the State's water resources. Additionally, NJDEP will pursue the inclusion of water quality considerations into drainage system rehabilitation projects funded by Federal sources through the development of appropriate agreements.

The primary emphasis will be on prevention of future flooding and water quality problems in developing areas, although opportunities for long-term progress on water quality restoration will occur as rehabiliation of existing systems is undertaken.

It should be noted that consideration of water quality in drainage decisions does not necessarily entail additional capital investments. The most effective measures for controlling stormwater pollution may in some cases prove to be less costly than conventional drainage measures, because they may involve lower capital investments.

This strategy will be reviewed and revised during the upcoming year to reflect changing priorities in National and State Non-point strategy. Some of the issues that will be considered are soil erosion and sediment contol, mine sediment, hydrologic modification, silvicultural sediment, and vessel wastes disposal.

Figure 2-17 presents the strategies and the associated activities, organizational responsibilities, timing, outputs, man-years and sources of funds for urban/suburban stormwater runoff control.

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.0 URBAN STORMWATER RUNOFF-DATA ACQUISITION 1.1 New Systems: Develop statewide program for new stormwater runoff systems which will determine need for data collection to establish impacts	1.1.1 DEP selecting of land agency(s) to develop work plan and determine water quality impacts	Delaware Valley Regional Planning Commission	Completed	Memo from DEP	N/A	N/A
	1.1.2 Conduct literature search to establish background for water quality control requirements	1) Delaware Valley Regional Planning Commission (L) 2) NJDEP, DWR, Office of Planning and Standards (S) 3) USEPA, Region II (S)	Completed	Identification of relevant data from pertinent literature Additional data needs determined	.1EPA	CWA, Sec. 208
	1.1.3 Determine additional data needs					
	1.1.4 Carry out required monitoring (chemical/physical/biological) Utilize results from NURP where available.	1) NJDEP (L) 2) DVRPC (S) 3) USDA-Soil Conservation Service 4) NJDA-Soil Conservation Committee	1980-1981	Report on effectiveness of detention basins and other BMP's		State appropriation local funds 106

Figure 2-17 Strategies for Urban/Suburban Stormwater Runoff

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.2 New Systems: Develop statewide program for new stormwater systems which will be used to determine controls that are generally effective for mitigating impacts of new systems, and develop manual on stormwater management for state and local officials	1.2.1 Select lead agency to determine BMP's statewide and write work plan	Delaware Valley Regional Planning Commission	Completed	Memo from DEP	.1EPA	CWA, Sec. 208
	1.2.2 Document from literature which techniques are most effective under varying conditions (specify design, effectiveness, applicability generalized cost). Utilize results from NURP program where applicable. Assemble handbooks.	1) Delaware Valley Regional Planning Commission (L) 2) NJDEP, DWR, Office of Planning & Standards (S) 3) USEPA(S)	April 1980	Handbook on Stormwater Controls Manual		
	1.2.3 Establish working group of county engineers to have input into selection of statewide BMP's for urban/suburban stormwater	1) Delaware Valley Regional Planning Commission (L) 2) County Engineers (S)		Working Group Membership		

Figure 2-17 Strategies for Urban/Suburban Stormwater Runoff

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.3 New Systems: Develop Statewide procedures and program for new stormwater systems which may be used to determine relationship between controls to mitigate water quality impact (detention basins, etc.) and achievement of other water quality goals.	1.3.1 NJDEP agency to determine relationship	1) Monitoring & Planning NJDEP (L) (Involvement, of NJDEP, Bureau of Flood Plain Management will be essential) 2) County agencies	1981	Memo to concerned agencies	N.A.	Sec. 208 CWA, Sec. 208 (FY80)
	1.3.2 Conduct literature search			Report	.8	
	1.3.3 Acquire additional needed data					
	1.3.4 Develop guidelines for flood control/ stormwater projects		1981-1982	Guidelines	1.2	CWA, Sec. 208 (FY80)

Figure 2-17 Strategies for Urban/Suburban Stormwater Runoff

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.4 Existing Systems: Based on results of initial WQM planning determine where stormwater is a significant problem and select segment for intensive study.	1.4 1 Water quality management planning agencies determine needs for intensive surveys to establish nature/extent of existing stormwater problems.	NJDEP, DWR, Office of Planning & Standards and designated WQM agencies, DRBC.	Completed	Needs determination for intensive surveys	1	CWA, Sec. 208 and 106 (FY-78-79)
1.5 Existing Systems: In priority watersheds impacted by stormwater, develop remedial controls: Navesink River; Trout Protection and Maintenance Streams.	1.5.1 In chosen areas develop detailed feasibility study of cleaning of existing stormwater related water quality problems	1) NJDEP (L) 2) WQM Agencies (S) 3) Local Agencies	1981	Project feasibility studies		CWA, Sec. 208 and 106
	1.5.2 Implement control projects	County and local agencies	1981-1984	Controls in place		State budget local budget

Figure 2-17 Strategies for Urban/Suburban Stormwater Runoff

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.6 Existing Systems: Establish surveillance to detect illegal discharges (point or nonpoint) through stormwater systems: D&R Canal	1.6.1 Select agency to set up model program for local/county government to conduct stream surveillance	1) Mercer County 2) NJDEP, Office of Planning & Standards	July 1980	Model program agreement with NJDEP	.5	CWA, Sec. 208 and 205 (g) (FY80)
	1.6.2 Establish DEP enforcement strategy/priorities with respect to illegal discharges	NJDEP, Office of Monitoring, Surveillance & Enforcement Mercer County	1980-1981	Enforcement strategy	.5	CWA, Sec. 208, Sec. 106 and 205 (g) (FY80)
	1.6.3 Establish local enforcement strategy/priorities	1) County/local boards of health 2) NJDEP, Office of Planning & Standards	1981-1982	Local Enforcement	2-3 MY per county	CWA, Sec. 208 (FY81)
1.7 Combined sewer overflow (CSO): determine where CSO is a major problem See Municipal Waste-Combined Sewer Overflows						

Figure 2-17 Strategies for Urban/Suburban Stormwater Runoff

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES, OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.8 CSO: Develop remedial control on a priority basis See Municipal Waste-Combined Sewer Overflows						
2.0 REGULATORY/PROGRAM DEVELOPMENT						
2.1 New Systems (water quality): Establish legal basis for requiring water quality controls in new drainage systems.	2.1.1 Select lead agency to develop regulatory program and write work program.	Delaware Valley Regional Planning Commission DRBC	1980	Completed		
	2.1.2 Determine county/State authority to require controls	1) NJDEP, DWR (L) 2) Delaware Valley Regional Planning Commission (S)	1981	Documentation of authority	.1EPA	CWA, Sec. 208

Figure 2-17 Strategies for Urban/Suburban Stormwater Runoff

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	2.1.3 If necessary, recommend legislative changes			Proposed changes		
	2.1.4 Examine existing local requirements to determine how to integrate additional controls	Designated agencies and NJDEP, DWR, Office of Planning and Standards	ongoing	Recommended changes to local control	.5-1 per county	CWA, Sec. 208 (FY81)
2.2 New Systems (water quality): Determine legal relationship between water quality and flood-related requirements and develop integrated regulatory approach.	2.2.1 Upon completion of recommendations for legal changes to institute water quality controls in drainage requirements, determine changes needed in flood control requirements.	NJDEP	1981	Legislative recommendations	1	CWA, Sec. 208 (FY80)

Figure 2-17 Strategies for Urban/Suburban Stormwater Runoff

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
2.3 Existing Systems: Develop programs to encourage water quality based controls in regional stormwater systems	2.3.1 Select agency to develop program	1) NJDEP 2) Somerset County	1981	Handbook for county engineers Memoranda of agreement	2-3	CWA, Sec. 208 and 205 (g) ; Y-80, FY-81
	2.3.2 Develop program incorporating quality controls	1) NJDEP 2) Somerset County	1981			
2.4 Existing System: On a selective basis, develop total drainage plans for watersheds using special federal grant assistance	2.4.1 NJDEP/Federal agency prioritize watersheds for integrated drainage planning.	1) NJDEP (L) 2) USEPA (S) 3) US HUD (S) 4) Army Corps of Engineers (S) 5) SCS (S) 6) DRBC (S)	1981-1984	Prioritization of watersheds		
	2.4.2 Develop integrated watershed plans	Counties	1981-1984	Watershed Plans		Flood Control Bond

Figure 2-17 Strategies for Urban/Suburban Stormwater Runoff

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
3.0 PERMITTING/ENFORCEMENT						
3.1 New Systems: Based on results of legal/institutional research and definition of program, establish permit/enforcement needs	3.1.1 Depends on other tasks not yet completed	NJDEP		Permit/ Enforcement needs established	1 EPA	CWA, Sec. 208 (FY81)
3.2 Existing systems and combined sewer overflows: Determine State/local enforcement strategy	3.2.1 Define NJDEP level of effort/capabilities to carry out enforcement for illegal discharges to storm systems	NJDEP, Office of Monitoring, Surveillance and Enforcement	1981	Staffing proposal	2 MM	CWA, Sec. 106 and 208 (FY81)
	3.2.2 Define County role in enforcement	1) WQM agencies (L) 2) County Boards Health (S)			1 MM per county	County budget

Figure 2-17 Strategies for Urban/Suburban Stormwater Runoff

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	3.2.3 Based on 3.2.1 and 3.3.2 increase enforcement personnel			N.A.		
4.0 GRANTS ADMINISTRATION						
4.1 New Systems: No grants except for planning and program development						
4.2 Existing Systems: Determine funding sources	4.2.1 Investigate availability of special federal funds for drainage to rehabilitate and channel available resources to project with water quality orientation	1) USEPA (L) 2) USHUD (S) 3) Army Corps of Engineers (S) 4) SCS (S)	1982	Determination of available funds		Sec. 208 FY-81
	4.2.2 Carry out watershed projects	County and local agencies	1981	Project implementation		CWA, Sec. 201

Figure 2-17 Strategies for Urban/Suburban Stormwater Runoff

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
4.3 Combined sewer overflows based on selective feasibility studies, develop specific proposals to abate most significant problems. (See Municipal Waste-Combined Sewer Overflows).	4.3.1 Develop engineering proposals to fund clean-up projects	Local jurisdictions	1981-1984	Project implementation		CWA, Sec. 201

Figure 2-17 Strategies for Urban/Suburban Stormwater Runoff

2.7.2 Agricultural Runoff Control Program

The objectives of the agricultrual runoff control program are to develop policies and procedures and re-direct programs to reduce adverse water quality impacts. Data acquisition, problem assessment, regulatory program development, permitting and enforcement, grants administration, and program evaluation strategies have been developed to meet the objectives for these issues which crosscut agencies at all levels of government. These strategies, and their corresponding activities, will be implemented over the next several years by the NJDEP Division of Water Resources, USEPA Region II, New Jersey Soil Conservation Committee and various other State and local planning bodies.

The strategies developed by NJDEP and USEPA Region II have been structured to resolve the needs associated with the development of an effective program of agricultural runoff management. These needs include:

- a data collection effort focused on identification and classification of major problem areas and impacted stream segments, sources/pathways of agriculture-related toxics in surface and groundwaters.

- determination of pollutant level reductions needed to meet water quality goals, including point and nonpoint source contributions.

- an evaluation of current pesticide management and handling practices and their impacts on surface and groundwater quality.

- the development of a coordinated statewide strategy with the Rural Clean Water Coordinating Committee to obtain Rural Clean Water Fund grants to support BMP implementation.

- development of adequate resources for implementing voluntary Soil Conservation District Agricultural Runoff Programs.

- development of a nonpoint source progress reporting system to adequately evaluate the benefits derived from program implementation.

- development of a regulatory program to ensure implementation to needed BMP's in those areas where a voluntary program is not successful.

The specific approaches to attaining the overall policy statement expressed above are found in Figure 2-18. The strategies described incorporate the policy elements described through a chronological, phased process of data acquisition and program implementation.

Also pressented are the associated activities, organizational responsibilities, timing, outputs, man-years and sources of funds.

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.0 DATA ACQUISITION						
1.1 Concentrate data collection efforts on most serious problem areas regarding impact of agriculture and related land uses.	1.1.1 Results of initial WQM plans related to agricultural pollution will be reviewed to determine extent of knowledge of existing problems and sources of data to supplement initial plans.	1) NJDEP, DWR Office of Planning & Standards (L) 2) State Soil Conservation Committee (S)	com-pleted	Supplement to initial report Statewide Plan		
	1.1.2 State Soil Conservation Committee and relevant agencies will work with WQM agencies to set priorities for data acquisition and select areas for future data collection.	1) State Soil Conservation Committee (L) 2) USDA (S) 3) USEPA, Region II (S) 4) 208 Agencies (S)	com-pleted	Plan of report study		
	1.1.3 Utilize best available techniques, including predictive loading models	1) NJDEP, DWR, Office of Planning & Standards	1981-82	3 Intensive Surveys		CWA, Section 106, RCWP

Fig. 2-18 Strategies for Agricultural Runoff Control Program

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	if in-stream data is not available or insufficient to determine cause-effect relationship in selected water sheds to understand water quality impact of rural runoff.	2) State Soil Conservation Committee/ SCD's (S) 3) USDA (S) 4) USEPA, Region II (S) 5) 208 Agencies (S)				
	1.1.4 Statewide Erosion Sediment and Animal Waste (SESAW) survey is under way. a) The scope includes an inventory of: - Erosion from stream and road banks, and construction sites - Best management practices in place and their effectiveness - Animal population, waste loads, and in-place controls' effectiveness	1) State Soil Conservation Committee/ SCD's 2) USDA	1981	Interim and Final Reports		USDA

Figure 2-18 Strategies for Agricultural Runoff Control Program

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
2.0 NPS CONTROL NEEDS						
2.1 Pollutant reduction levels needed, by category of parame- to meet water quality goals in priority areas.	2.1.1 On a stream segment basis, determine pollutant level reduction, by parameter, i.e., nitrogen phosphorus, pesticides, etc. needed to eliminate or mitigate the observed water quality problem.	NJDEP (L) SSCC (S) SCD's (S) Areawide 208 Agency (S)	1983	Reports	*	
	2.1.2 Analyses should include NPS as well as any point sources discharging identified para- meters in the stream segment.	NJDEP (L) SSCC (S) SCD's (S) Areawide 208 Agency (S)	1983	Reports	*	
2.2 Identify controls to meet pollutants reduction levels.	2.2.1 Prepare list of BMP's and their esti- mated effectiveness and situation for use.	NJDEP (L) SSCC (S) SCD's (S) Areawide 208 Agencies (S)	1983	Reports	*	
	2.2.2 Cost/Benefit analysis to determine appro- priate range of alternative control strategies	SSCC SCD	1983	Reports	*	

Figure 2-18 Strategies for Agricultural Runoff Control Program

*Too premature to estimate. Need SESAW study results.

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
3.0 REGULATORY/PROGRAM DEVELOPMENT 3.1 Coordinate and implement strategy between WQM agencies to address agriculture and related sources of pollution.	3.1.1 An agency has been selected to review initial WQM Plans and recommend a common strategy of implementation of BMP's (see policy assumptions already stated).	1) State Soil Conservation Committee/ SCD's 2) NJDEP, DWR, Office of Planning & Standards (L)	completed	Supplement to initial Statewide Plans		
	3.1.2 All WQM agencies will respond to the strategy and make appropriate modifications to these plans including appropriate management agency designations.	1) NJDEP, DWR, Office of Planning & Standards (L) 2) 208 Agencies (S)	Ongoing	Certification conditions for agricultural Elements addressed	.25	106 Local Budget
	3.1.3 After BMP's are incorporated into each WQM Plan, a detailed implementation program will be developed and implemented by the relevant management agency. Negotiate personnel	1) Soil Conservation Districts (L) 2) State Soil Conservation Committee (S)	1983	Special Report	.5	CWA, Section 208 Soil Conservation Committee 106

Figure 2-18 Strategies for Agricultural Runoff Control Program

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	changes, funding requirements and sources and management agencies willingness to accept stated responsibilities. The program will set targets for numbers of landowners agreements to adopt BMP's Indicate staff to obtain such agreements, etc.					
	3.1.4 Coordinated proposals for federal assistance through RCWP, ACP and P.L. 566 Program are being developed	1) State Rural Water Coordinating Committee (L) 2) Soil Conservation Committee (S) 3) SCD's (S) 4) 208 Agencies (S)	1979 & cont.	3 or more project applications	.16	CWA Section 208 USDA
	3.1.5 An education program will be developed to inform landowners about need to implement BMP's in the priority areas.	1) Soil Conservation Committee/SCD's (L) 2) NJDEP (S)	1979 & con't	Public participation program	.08	CWA, Section 208 Soil Conservation Committee

Figure 2-18 Strategies for Agricultural Runoff Control Program

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
3.2 Develop coordinated strategy to implement BMP's for mining, quarrying and construction	3.2.1 Review the enforcement of existing law related to soil erosion control from construction activities	1) NJDEP (L) 2) SCD's (S)	Completed	Initial Statewide 208 Plan		
	3.2.2 WQM agencies will develop common recommendations regarding new legislation for surface mining and expansion of State Soil Erosion Act to cover public projects	1) State Soil Conservation Committee/DEP (OAP) (L) 2) WQM Agencies (S)	Completed	Draft Legislation Enacted 1980		
4.0 GRANTS ADMINISTRATION 4.1 Develop corrdinated statewide strategy to obtain federal grants to support BMP implementation	4.1.1 WQM agencies will work with the State Soil Conservation Committee to develop a common approach for utilizing federal monies available for cost sharing including RCWP, ACP, PL 566 and Section 304K, PL 95-217	1) State Soil Conservation Committee and SCD's 2) WQM Agencies 3) Rural Clean Water Coordination Committee	ongoing	Supplement to Guidance Memo Initial Statewide Plan	.04	CWA, Section 208 Soil Conservation Committee

Figure 2-18 Strategies for Agricultural Runoff Control Program

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
5.0 PROGRAM EVALUATION 5.1 Develop program to evaluate non-point source program performance with respect to components in water quality	5.1.1 NJDEP will with input from other appropriate agencies develop NPS program progress reporting system. Criteria for evaluation should also be developed to ensure that improvements in water quality are projected.	- NJDEP (L) - SSCC (S) - SCD's (S) - Rural Clean Water Coordination Committee (S) - Areawide 208 Agencies (S)	1985	Reporting System		

Figure 2-18 Strategies for Agicultural Runoff Control Program

2.7.3 Clean Lakes Program

- The primary objective of the program is project implementation (Clean Lakes PM 80-3). Funding priority should be given to Phase 2 projects, especially where Phase 1 projects are complete

- The State must list in the FY'81 SEA and (or) appropriate work program, the cooperative agreement applications that will be submitted by the State for Phase 1 and Phase 2 projects in FY'81. (Clean Lakes PM 80-1) NJDEP will list the cooperative agreement applications, with necessary funding, which it expects to submit in FY'82.

- The goals of the New Jersey State Lake Management Program are to develop lake management practices and restore several of the State's priority public lakes. The source of State funds for Phase 2 projects will be the Green Acres Program (40 percent) and local governments (10 percent).

- The NJDEP with the assistance of counties and WQM planning agencies, will update its statewide inventory by county of freshwater public lakes.

- The NJDEP will develop and process 5 Lake Restoration applications/ proposals for funding under Section 314 in FY 1981.

- The NJDEP will develop procedures for local development of applications (for priority lakes), and will identify available funding programs.

- The NJDEP will actively advocate that Clean Lakes studies be undertaken by local agencies for high priority lakes.

- The NJDEP will revise surface water standards to reflect a higher water quality use classification if higher water quality is achieved as a result of a lake restoration project.

- The NJDEP and EPA will improve inter-program coordination to assure consistency with other state and federal program objectives.

- EPA - Region II will issue copies of all program regulations, policy and guidance, along with any Regional interpretation, to the NJDEP.

  - NJDEP will be responsible for promptly reviewing this information and submitting questions or comments.

- The NJDEP will cooperate and provide consultation services on Clean Lakes issues for programs initiated by local, state and federal agencies dealing with water quality management and water resources planning.

- EPA will provide response and comments, within 30 days of receipt, to all reports, technical inquiries, program implementation inquiries and grant application issues.

- EPA shall assist NJDEP in obtaining reports and/or information on latest technical advances in Clean Lakes restoration technology.

- EPA will delegate review and certification authority (responsibility) to the NJDEP regarding plans and specification and bid award material.

- The NJDEP will implement national program goals in the statewide program.

- The NJDEP will provide technical assistance to local governments and public interest groups concerning the dynamics of lake systems and the mechanics of lake management techniques.

- EPA and the NJDEP will assure compliance with quality assurance requirements on all projects so that all environmental measurements result in usable data of known quality.

  - EPA will provide guidance to the NJDEP for preparing quality assurance plans.

- The NJDEP will submit, in a timely fashion, the required reports (including STORET compatible raw data.)

See Fig. 2-19 for Strategies.

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.0 LAKE WATER QUALITY-DATA ACQUISITION						
1.1 Update lake inventory including publicly owned, within the State.	1.1.1 Contact other State offices involved in lake activities; contact municipal tax offices and lake associations during field investigations.	NJDEP, DWR, Bureau of Monitoring and Data Management	In Progress	Statewide inventory by county 1980-85	.15	CWA, Sec. 106 State Appropriation
	1.1.2 Establish fact sheet for each lake and upgrade as necessary	NJDEP, DWR, Bureau of Monitoring and Data Management	In Progress			
1.2 Develop coordinated program to obtain lake water quality data and establish preliminary classification of lakes according to trophic state.	1.2.1 Routinely monitor lake water quality at inlets and outlets of publicly owned lakes-- enter data into STORET.	NJDEP, DWR, Bureau of Monitoring and Data Management.	Ongoing			
	1.2.2 Analyze water samples	1) NJDEP, DWR, Biological Lab (L) 2) NJ Department of Health (S)	In Progress	Classify 10 lakes/ yr. 1980-85	.5	CWA, Sec. 106 State Appropriations

Figure 2-19 Strategies For Clean Lakes Program

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	1.2.3 Review data and inform MS&E of possible violations in water quality standards and potential health hazards.	NJDEP, DWR, Bureau of Monitoring and Data Management				
	1.2.4 Establish preliminary trophic classification based on field observations and nutrient analyses.	NJDEP,DWR, Bureau of Monitoring and Data Management.				
1.3 Develop coordinated program to conduct intensive lake surveys on selected high priority lakes	1.3.1 Monitor water quality of selected lakes over a one-year period at inlets, outlets, and within lakes. Enter data into STORET.	NJDEP, DWR, Bureau of Montoring and Data Management	1980-81	Completed chemical data entered into STORET		
	1.3.2 Survey lake watersheds to determine land uses, topography, geology, and hydrology.	NJDEP, DWR, Bureau of Monitoring and Data Management	1981			

Figure 1-19 Strategies for Clean Lakes Program

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	1.3.3 Determine geomorphological characteristics of selected lakes.	NJDEP, DWR, Bureau of Monitoring and Data Management	In Progress 1980-1981			
	1.3.4 Develop an inventory of all point source discharges within each selected lakes watershed	NJDEP, DWR: (1) BM&DM (L) (2) MS&E (S)	In Progress 1980-1981			
	1.3.5 Determine past recreational uses of the lakes precluded by pollutional impacts.	NJDEP, DWR, Bureau of Monitoring and Data Management	In Progress 1980-81	Intensive lake survey on 25 lakes 1980-81	2.0	CWA, Sec.314 State Appropriations
	1.3.6 Analyze samples for physical, chemical, bacteriological and biological parameters	(1) NJ Department of Health (L) (2) NJDEP, DWR Biological Lab (S) (3) NJDEP, Bureau of Fisheries (S)	Dec. 1980			
	1.3.7 Quantity and differentiate pollutional loadings from point and non-point sources.	NJDEP, DWR, Bureau of Monitoring and Data Management	In Progress 1980-81			

Figure 2-19 Strategies for Clean Lakes Program

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	1.3.8 Evaluate the improvements in water quality that could be expected through the implementation of various restorative techniques; recommend best restoration approaches	NJDEP, DWR, Bureau of Monitoring and Data Management	In Progress 1981			
	1.3.9 Evaluate the public benefit that could be derived through lake restoration.	NJDEP, DWR, Bureau of Monitoring and Data Management	1981			
1.4 Conduct cursory surveys on private lakes in response to complaints or requests.	1.4.1 Collect and analyze samples.	(1) NJDEP, DWR: (a) Bureau of Monitoring & Data Management (L) (b) Biological Lab (S) (2) NJ Department of Health (S)	In Progress 1980-85	Investigations as necessary 1980-1985	.2	CWA, Sec.106 State Appropriations
	1.4.2 Respond to complaint or request as necessary	NJDEP, DWR, Bureau of Monitoring and Data Management	In Progress 1980-85			

Figure 2-19 Strategies for Clean Lakes Program

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
2.0 REGULATORY PROGRAM DEVELOPMENT						
2.1 Provide public education regarding State's lakes management program, Federal clean lakes program and general lakes management theory.	2.1.1 Prepare a lake management presentation to be given to interested lake associations upon request.	NJDEP, DWR, Bureau of Monitoring and Data Management	In Progress	Lakes Management Program slide show and poster presentation. 1980 and continuing.	.3	
2.2 Develop and implement program for the restoration of publicly owned freshwater lakes.	2.2.1 Conduct 25 intensive surveys on selected high priority lakes in accordance with Section 314(1) of P.L. 95-217	NJDEP, DWR, Bureau of Monitoring and Data Management	In Progress 1980-81	Development of program to ultimately result in the restoration of the State's significant publicly owned freshwater lakes 1980	.3	CWA, Sec.106 State Appropriations
	2.2.2 Publicize availability of Federal funds and act as coordinator and liaison between EPA and interested local governments.	NJDEP, DWR. Bureau of Monitoring and Data Management (1) Local gov'ts. (2) NJDEP, DWR: a) Bureau of Monitoring and Data Management (L) b) Green Acres (S) (3) EPA (S)	In Progress			
	2.2.3 Seek Federal funds for the restoration of high priority lakes based on final priority ranking developed from intensive survey results.		In Progress			

Figure 2-19 Strategies for Clean Lakes Program

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
2.3 Coordinate the intra-divisional committee of various agencies involved in lake activities	2.3.1 Develop a line of lake communications to inform various interested parties of a program activity which may benefit others besides the initiating agency	NJDEP: (1) Div. of Water Resources (L) (2) Div. of Parks and Forests (S) (3) Div. of Fish, Game, & Wildlife (S) (4) Div. of Marine Services (S) (5) Div. of Environmental Quality (S) (6) Green Acres (S)	In Progress	Improve coordination among various offices involved in lake activities; Expand utilization of available data; Develop review process for State's aqatic vegetation control program		
	2.3.2 Develop review process for State's aquatic vegetation control program		In Progress		0.5	State appropriation
	2.3.3 Develop a program for the maintenance of State-owned lakes.	NJDEP: (1) DWR, Bureau of Monitoring and Data Management (L) (2) Div. of Parks and Forests (S) (3) Div. of Fish, Game & Wildlife (S) (4) Div. of Marine Services (S)	In Progress	1980-85 DWR to administer state lake weed control program		

Figure 2-19 Strategies for Clean Lakes Program

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
3.0 LAKE WATER QUALITY -- PERMITTING 3.1 Ensure soundness prior to issuance of stream encroachment permits for alterations to existing lakes and tributaries.	3.1.1 Review applications (as needed resulting in significant alterations to lake beds and shorelines; make recommendations as to environmental soundness of proposed strategy.	NJDEP, DWR: (1) Bureau of Flood Flood Plain Mgt. (L) (2) Bureau of Monitoring and Data Management (S)	In Progress	Maintenance of lake water quality; Protection of associated biota 1980-85	.05	CWA, Sec. 106 State Appropriation
3.2 Ensure that lake water quality considerations are incorporated into NPDES permits for point source industrial and municipal discharges.	3.2.1 Review NPDES permits to ensure protection of lake waters.	NJDEP, DWR: (1) Monitoring, Surveillance and Enforcement (L) (2) Bureau of Monitoring and Data Management (S)	In Progress	Maintenance of lake water quality; Protection of associated biota 1980-85	.2	CWA, Sec. 106 State Appropriation

Figure 2-19 Strategies for Clean Lakes Program

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
3.3 Ensure soundness prior to issuance of lake lowering and water diversion permits	3.3.1 Review permit requests and act as necessary.	NJDEP, DWR: (1) Bureau of Fisheries (L) (2) Bureau of Monitoring and Data Management (S)	Ongoing	Maintenance of lake water quality; Protection of associated biota 1980-85 (Notification of issued permits sent to DWR)	.05	CWA, Sec. 106 State Appropriation
4.0 LAKE WATER QUALITY -- ENFORCEMENT						
4.1 Ensure Surface Water Quality Standards are not violated for lake water due to pollution caused by point source discharges, present or future.	4.1.1 Review monitoring data (or monitor as necessary) and determine the degree and types of pollution and their probable sources.	NJDEP, DWR, Monitoring and Planning Element				
	4.1.2 Determine whether SWQS can be met by upgrading effluent quality.	NJDEP, DWR, Monitoring and Planning Element				

Figure 2-19 Strategies for Clean Lakes Program

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	4.1.3 Determine effluent limitations required to achieve SWQS or antidegradation of ambient water quality	NJDEP, DWR; Monitoring & Planning Element				
	4.1.4 Recommended enforcement action as required.	(1) NJDEP, DWR: a) Monitoring Surveillance and Enforcement (L) b) Monitoring & Planning Element (S) (2) NJ Attorney General (S)		Increase Number of lakes meeting surface water quality standards and fishable and swimmable standards 1980-85	.1	CWA, Sec. 106 CWA, Sec. 201 State Appropriation

Figure 2-19 Strategies for Clean Lakes Program

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	4.1.5 Review monitoring data and determine potential pollutional impact from implementation of the proposal.	NJDEP, DWR: (1) Bureau of Public Wastewater Facilities (L) (2) Monitoring & Planning Element (S)	1980-1985			
	4.1.6 Determine effluent limitations to maintain compliance with SWQS or antidegrada- of existing ambient water quality.	NJDEP, DWR: (1) Bureau of Public Wastewater Facilities (L) (2) Monitoring & Planning Element (S)		This is being accomplished through the NPDES, 201, 208, 303(e) and 314 programs. Also, lakes are protected, in many instances, from degradation (anti-degradation activities)		

Figure 2-19 Strategies for Clean Lakes Program

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
4.2 Ensure Surface Water Quality Standards are not violated for lake-water due to pollution by non-point sources	4.2.1 Review monitoring data; qualify and quantify various sources of pollution.	NJDEP, DWR, Bureau of Monitoring & Data Management	1980-1985			
	4.2.2 Recommend strategies to reduce or eliminate non-point sources of pollution.	(1) NJDEP, DWR: a) Bureau of Monitoring & Data Management (L) b) OPS (S) (2) Soil Conservation District (3) Soil Conservation Committee	1980-1985	Increase number of lakes meeting surface water quality standards and fishable and swimmable status 1980-1985	.05	CWA, Sec. 106 CWA, Sec. 208 State Appropriation

Figure 2-19 Strategies for Clean Lakes Program

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	4.2.3 Pursue enforcement action as necessary	(1) NJDEP, DWR: a) Bureau of Flood Plain Management (S) b) Bureau of Monitoring & Data Management (S) c) Areawide Planning (S) (2) Soil Conservation Service	Ongoing			

Figure 2-19 Strategies for Clean Lakes Program

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
5.0 LAKE WATER QUALITY - GRANTS ADMINISTRATION 5.1 Fund division of water resources under Section 314 (1) of P.L. 95-217 to establish a priority ranking and classification of the State's significant publicly owned freshwater lakes	5.1.1 Develop public lakes inventory by county	1) NJDEP, DWR, Bureau of Monitoring & Data Management (L) 2) USEPA, Region II (S)	ongoing	Update as necessary		
	5.1.2 Update established priority ranking for each county	NJDEP, DWR: 1) Bureau of Monitoring & Data Management (L) 2) Areawide Planning (S)	Yearly	Public inventory; County priority ranking; Statewide priority 1979-80	.1	CWA, Sec. 314 State Appropriation
	5.1.3 Select 25 lakes and conduct intensive surveys on these lakes and their water-	NJDEP, DWR: 1) Bureau of Monitoring & Data Management (L) 2) Areawide Planning (S)	1980-1981			
	5.1.4 Upon completion of surveys include the 25 lakes in a final Statewide priority list, which will be updated yearly or as otherwise required	NJDEP, DWR, Bureau of Monitoring & Data Management	1980-1981			

Figure 2-19 Strategies for Clean Lakes Program

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
5.2 Fund lake restoration projects under Section 314 of P.L. 95-217	5.2.1 Application for federal funds completed by local governments and submitted to MDM State of NJ is official applicant on all proposals submitted to EPA for funding.	(1) NJDEP, DWR, Bureau of Monitoring & Data Management (L) (2) EPA, Region II (S)		5 Lake Restoration Grants /Year During FY' 80 these Grants will have been made		
	5.2.2 Proposal to receive "208" certification.	NJDEP, DWR, (1) Monitoring & Planning Element (L) (2) EPA, Region II (S)		.Haddon Lake .Greenwood Lake .WeeqWahic Lake .Amendment to Allentown Lake		
	5.2.3 Sources of matching funds to be verified	(1) NJDEP, DWR: a) Division of Water Resources (L) b) Green Acres (L) (2) Other Sources (L)				

Figure 2-19 Strategies for Clean Lakes Program

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
5.2 (continued)	5.2.4 Proposal to receive State certification (Commissioner's signature required prior to formal submittal to EPA.	(1) NJDEP, DWR: a) Bureau of Monitoring & Data Management (L) b) Green Acres (S) c) Other Sources (S) (2) Commissioner's Office (L)		5 Lake Restoration Grants 1981		CWA, Sec. 314 State Appropriation
	5.2.5 Proposal forwarded to EPA Region II and Headquarters for review and approval.	(1) EPA Headquarters (L) (2) NJDEP, DWR (S)				
	5.2.6 Upon final approval by EPA, project subcontracted by State to local government.	(1) NJDEP, Division of Water Resources (L) (2) Local Government (L)				
	5.2.7 Supervise, inspect and monitor project implementation	(1) NJDEP, DWR, Bureau of Monitoring & Data Management. (2) EPA Region II				

Figure 2-19 Strategies for Clean Lakes Program

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
5.2 (continued)	5.2.8 Post implementation water quality monitoring to determine effectiveness of project.	NJDEP, DWR, Bureau of Monitoring & Data Management				

Figure 2-19 Strategies for Clean Lakes Program

2.8 Residuals Management

The objectives of solid waste mangement is the development and implementation of a comprehensive program dealing with municipal and industrial solid wastes, hazardous wastes and sludge. The continued evaluation of land disposal sites and its classification for the open dump inventory, the development and implementation of a hazardous waste regulatory/enforcement program, the development of a resource recovery program and the development of a sludge management program are the key strategies for FY '81.

The strategies developed in this section by NJDEP and USEPA Region II have been to meet the needs of the solid and hazardous waste management programs. These needs include:

- a data collection effort to determine the source, amount, characteristics and current disposition of all solid wastes; and determination of the effects of disposal activities on the environment.
- the development and approval of comprehensive management plans for solid wastes, including hazardous waste and sludge
- the implementation of the state solid waste plan
- the promotion of an alternative to landfilling (e.g. resource/energy recovery)
- the development and implementation of a regulatory and comprehensive/ enforcement program for solid wastes
- the evaluation of disposal facilities for purposes of the open dump inventory
- the development and implementation of hazardous waste program under Subtitle C
- the authorization of state hazardous waste programs

Figure 2-20 presents the strategies for solid waste management and the associated activities, responsibilities, timing, and sources of funds.

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.1 DEVELOPMENT AND IMPLEMENTATION OF A STATEWIDE RESIDUALS WASTE MANAGEMENT PLAN	1.1.1 Integrate district solid waste plans into statewide plan	1) NJDEP, Solid Waste Administration 2) USEPA Region II 3) State solid waste management district 4) Rutgers University	1/81	Draft plan to EPA 10/80 Formal submission of state adopted plan by 1/31/81 to EPA Region II	6	RCRA/State appropriations
	1.1.2 Identification of responsibilities of state and substate agencies in the development and implementation of state plan	1) NJDEP	on-going			

Figure 2-20 Strategies for Residuals Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	1.1.3 Assure that state has sufficient legal authority to prohibit the establishment of new open dumps and upgrade or close existing ones.	1) NJDEP (SWA)	1980 ongoing	STATE PLAN	.5	RCRA/State
	1.1.4 Provide strategy for encouraging low and high technology, resource recovery and conservation activities	1) NJDEP (SWA) 2) NJDOE 3) Solid Waste Management Districts (SWMD) 4) local jurisdictions	80-81 ongoing	STATE PLAN	1.5	RCRA/State
	1.1.5 Provide for the development and implementation of sufficient recovery/treatment and disposal capacity necessary to meet the state's solid waste management needs	1) NJDEP (SWA) 2) SWMD	1980-1981	STATE PLAN	1.5	RCRA/State
	1.1.6 Coordination with other programs	1) NJDEP (SWA) 2) SWMD	on-going	on-going	.5	RCRA/State

Figure 2-20 Strategies for Residuals Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	1.1.7 Public participation	NJDEP (SWA) SWMD	on-going	on-going	.6	RCRA/State
	1.1.8 New Jersey Solid Waste Planning and Resource Recovery Grant Program	NJDEP (SWA)	7/80 -6/81	Approved Plans	.3	State appropriations
2.1 INVENTORY OF LAND DISPOSAL FACILITIES	2.1.1 Identify land disposal facilities	1) NJDEP (SWA) 2) WQM	9/81	Report	.7 11.0	RCRA/EPA appropriations

Figure 2-20 Strategies for Residuals Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	2.2.2 Assess schedule of land disposal facilities to be inventoried	NJDEP	8/80	Report	.25	RCRA/EPA
	2.2.3 Continue to upgrade background data on land disposal facilities	NJDEP	on-going	ongoing	2.2	RCRA/EPA
	2.2.4 Classify sites and notify the owner/operator of facility classification	NJDEP	as completed	50 sites in FY '81	1.6	RCRA/EPA
	2.2.5 Prepare and submit classification forms to EPA Region II	NJDEP	9/81	9/81	.25	RCRA/EPA
	2.2.6 Close/upgrade those facilities classified as open dumps	NJDEP	on-going	ongoing	As required	RCRA/EPA State appropriations
	2.2.7 Develop compliance schedules for open dumps	NJDEP	on-going	ongoing	As required	RCRA/EPA State appropriations

Figure 2-20 Strategies for Residuals Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
3.1 DEVELOP SITING CRITERIA FOR VARIOUS TYPES OF HAZARDOUS WASTE TREATMENT AND DISPOSAL FACILITIES	3.1.1 Identification of Areas unsuitable for hazardous waste facilities under any circumstances	1) NJDEP/Delaware River Basin Commission	10/80	1) Development of criteria 2) Identification of sites	4	RCRA/State appropriations
4.1 EXPAND CURRENT HAZARDOUS WASTE PROGRAM	4.1.1 Assess adequacy of resources necessary to qualify for interim authorization	1) NJDEP 2) EPA Region II	6/80		.25	RCRA/state appropriations
	4.1.2 Evaluation of existing legislation/draft amendments and/or new legislation as needed	NJDEP	1/81	Adoption of Phase I Regulations	75	RCRA/State appropriations
	4.1.3 Revise/implement existing permit mechanism	NJDEP	1980-1982 5/81	1) Issue permits for facilities 2) Prioritize facilities for Permit Issuance	2.2	RCRA/State appropriations

Figure 2-20 Strategies for Residuals Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	4.1.4 Expand/implement existing surveillance and enforcement program	DEP	1980-1984	Program Development & Implementation	4.5	RCRA/State appropriations
	4.1.5 Obtain interim authorization	DEP	4/81	Interim authorization	1.0	RCRA/State appropriations
	4.1.6 Obtain full authorization	DEP	4/83	Full authorization	1.3	RCRA/State appropriations
	4.1.7 Implement a debugged manifest system	DEP	4/81	Manifest System	3.1	RCRA/State appropriations
	4.1.8 Provide technical assistance	DEP	on-going	ongoing	2.0	RCRA/State appropriations
	4.1.9 (a) Develop a comprehensive hazardous waste training program phased with implementation of authorization	DEP	on-going	ongoing	1.0	RCRA/State appropriations

Figure 2-20 Strategies for Residuals Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	(b) train personnel	1) DEP 2) EPA	1981-1983	Trained Personnel	0.7	RCRA/State appropria-
	4.1.10 Assessment of Rollins Environmental Services	1) Governor's Hazardous Waste Advisory Committee 2) NJDEP	12/80	Assessment Report	.7	RCRA
	4.1.11 Develop ADP system for the hazardous waste program	1) DEP 2) EPA	1981	Operational System	0.5	RCRA
	4.1.12 Develop laboratory capability to support hazardous waste program and estimate quality assurance procedures	DEP	1981	Approved laboratory procedures	1.0	RCRA/State Appropria-tions
	4.1.13 Finalize Cooperative Arrangement	DEP	11/19/80	Signed Cooperative Arrangement	0.1	RCRA

Figure 2-20 Strategies for Residuals Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
4.2 IMPLEMENT A GENERAL PUBLIC PARTICIPATION PROGRAM AND SPECIFIC OUTREACH EDUCATIONAL AND TECHNICAL ASSISTANCE PROGRAMS TO INCREASE REGIONAL AND COMMUNITY UNDERSTANDING, RESPONSIBILITY AND SUPPORT FOR HAZARDOUS WASTE MANAGEMENT	4.2.1 Develop a general public participation program including public information exchange through forums, conferences and workshops	DEP				
5.1 PRESIDENT'S URBAN POLICY GRANT PROGRAM	5.1.1 Completion of Phase III at Camden, Mercer, HMDC, NJ/NY Port Authority	1) EPA Region II 2) NJDEP 3) Local jurisdiction	1980-1983	Decision on market and procurement methods		RCRA/Grantees
6.1 DETERMINE THE RATE OF SLUDGE GENERATION, TREATMENT METHODOLOGIES, SLUDGE QUALITY, DISPOSAL PRACTICES FROM CURRENT (MUNICIPAL) SLUDGE GENERATORS	6.1.1 Obtain data through submission by generators to WMIS, including sludge generation and present disposal practices	NJDEP, DWR: 1) WQM (L) 2) CGA (S)	on-going	.5		State appropriations CWA, Sec. 106 and 208

Figure 2-20 Strategies for Residuals Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	6.1.2 Promulgate SQAR and incorporate data into WMIS	NJDEP, DWR:	1979-1981		1.25	State appropriations CWA, Sec. 106 and 208
	6.1.3 Limited sampling and analysis of POTW sludges	NJDEP, DWR (L): 1) Office of Sludge Management and Industrial Pretreament (L) NJDOH (S)	As needed		.75	State appropriations CWA, Sec. 106 and 208
7.1 DETERMINE SEPTAGE GENERATED BY COUNTY AND BY 201 AREA, AND THE EXISTING SEPTAGE DISPOSAL PRACTICES	7.1.1 Obtain data through DWR and SEA files	NJDEP, DWR (L) NJDEP, SWA (S)			.34	State appropriations SWA, Sec. 106 and 208
	7.1.2 Estimate from population figures and 201 coverage	NJDEP, DWR: 1) WQM (L)			35	State appropriations CWA, Sec. 106 and 208

Figure 2-20 Strategies for Residuals Management

2.9 Monitoring Integration and Quality Assurance

The objective of monitoring intergration strategies is to coordinate inter/intra-agency monitoring activities to the maximum extent possible, including: collection, analysis and utilization of data; administrative control of monitoring activities; laboratory services; quality assurance and management of the data. Program development, data acquisition and toxics monitoring strategies have been developed to meet such objectives for this particular cross-cutting issue. These strategies, and their corresponding activities, will be implemented in the coming years by the NJDEP DWR's Bureau of Water Quality Planning and Management, Toxic Substances Program and USEPA Region II's Surveillance and Analysis Division with input from other DWR Offices.

These strategies have been developed by NJDEP and USEPA Region II to meet the program development needs associated with realizing monitoring intergration objectives. These needs include:

- intergrating monitoring efforts for all surface and groundwater ambient, intensive survey and compliance, monitoring for toxics, NPDES, SDWA and solid waste programs

- more effective administative control of monitoring activities

- adequate quality assurance

- integrated toxic substance ambient and compliance monitoring

Fig. 2-21 presents the strategies for monitoring integration and the associated activities, organizations responsibilities, timing, outputs, man-years and sources of funds.

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.0 PROGRAM DEVELOPMENT 1.1 Develop an integrated monitoring program for all surface and groundwater ambient, intensive survey, and compliance monitoring for toxics, NPDES, SDWA, Solid Wastes, Hazardous Waste, and spills programs.	1.1.1 Establish a Water Monitoring Work Group (WMWG) representing all New Jersey water monitoring programs to meet bimonthly to identify and review monitoring needs, resource requirements performance, recommended priorities, and potential resources for all water monitoring activities. 1.1.2 Establish Monitoring Management Bureau responsible for setting priorities, scheduling, coordinating and integrating all data gathering and data organization for water programs.	1.1 NJDEP 1981 a) DWR 1. Bureau of Monitoring & Data Management. (L) 2. Enforcement Element (S) 3. Bureau of Potable Water (s) b) OCTSR (S). c) DEQ 1. Solid Waste Administration (S) 2. Hazardous Waste Bureau (S	WMWG Established 1981	1.1.2-DEP Administrative Order delegating authority to Monitoring & Data Management Bureau.	NJDEP	State Appropriation CWA Sec. 106

Figure 2-21 Strategies for Monitoring Integration and Quality Assurance

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
		d) Hazard Management Program (S) USEPA a) Region II S & A Division (S)				
1.2 Develop Quality Assurance Program consistent with DEP water monitoring needs.	1.2.1 Develop and implement a quality assurance program plan consistent with EPA mandatory quality assurance requirements.	1.2 NJDEP a) DWR 1. Bureau of Monitoring & Data Management (L)	1981	1.2.1-EPA Approved DEP Quality Assurance Program Plan		1.2 NJDEP State Appropriations
	1.2.2 Develop DEP laboratory certification program for all water analyses laboratories submitting data pursuant to Federal or State Statutes or regulations.	USEPA a) Region II S & A Division (S)	1981	1.2.2-SDWA Certification Program Development Completed 1981-Sludge Cert. Regulations Adopted.		CWA Sec. 106

Figure 2-21 Strategies for Monitoring Integration and Quality Assurance

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
			1982	NPDES Hazardous Waste Cert. Regulations Adopted		
1.3 Develop adequate laboratory service capabilities consistent with water monitoring needs.	1.3.1 Develop mechanism and procedure for assessing laboratory service requirements on an annual basis.	1.3 a) NJDEP DWR - Bureau of Monitoring & Data Management (L) a) USEPA Region II S & A Division (S)	1981	1.3.1 Procedure Developed		NJDEP State Appropriation CWA, Sec. 106
2.0 PROGRAM IMPLEMENTATION						
2.1 Implement and maintain integrated monitoring program for surface and groundwater monitoring activities.	2.1.1 WMWG meets bimonthly to identify and review monitoring needs, resource requirements, performance recommended priorities and potential resources for all Monitoring Activities.	2.1.1 WMWG members (L)	1981 + Continuing	2.1.1 Bi-monthly reports to EPA, S & A Division		2.1.1 NJDEP State Appropriations CWA Sections 106, 314 RCRA TOSCA SDWA

Figure 2-21 Strategies for Monitoring Integration and Quality Assurance

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	2.1.2 Prepare 5 year and annual integrated monitoring strategy for incorporation into SEA update, grant applications and budget proposals for DEP and EPA work programs.	2.1.2 NJDEP Bureau of Monitoring & Data Management (L) USEPA Region II S & A Division (S) USGS	May 1981 and continuing Annually	2.1.2 5 yr. integrated Monitoring Program Plan submitted to EPA.		2.1.2 NJDEP State Appropria- CWA Sec. 106
	2.1.3 Implement water quality monitoring activities consistent with 1.2.1 and 2.1.2 activities, data management requirements, and integrated monitoring training requirements.	2.1.3 NJDEP a) DWR Bureau of Monitoring & Data Management (L) Enforcement Element Bureau of Potable Water	Sept. 1981 and continuing annually	2.1.3 Assessment of Monitoring Achievements for Planned Activities submitted to EPA S&A Division		2.1.3 NJDEP State Appropriations CWA, Sec. 106, 314 RECRA TOSCA SDWA USGS

Figure 2-21 Strategies for Monitoring Integration and Quality Assurance

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
		2.1.3 (cont.) b) DEQ Solid Waste Administration Hazardous Waste Bureau c) Toxic Substances Program d) Hazard Management Group USEPA a) Region II S&A Division USGS				

Figure 2-21 Strategies for Monitoring Integration and Quality Assurance

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
2.2 Implement a quality assurance program consistent with water monitoring needs and EPA mandatory quality assurance requirements.	2.2.1 Implement a quality assurance plan consistent with EPA quality assurance requirements for all water monitoring program activities.	2.2.1 NJDEP Bureau of Monitoring and Data Management (L) USEPA Region II, S&A Division (S)		2.2.1 EPA approved quality assurance plans for all monitoring projects consistent with available resources		2.2.1 NJDEP State Appropriations CWA Sec. 106
	2.2.2 Implement a DEP laboratory certification program for all water analyses laboratories submitting data pursuant to federal and State statutes or regulations.	2.2.2 NJDEP Bureau of Monitoring & Data Management (L) USEPA Region II, S&A Division (S)	1981	2.2.2 All SDWA laboratories meet minimal federal and DEP certification requirements. SDWA certification program.		2.2.2 NJDEP State Appropriation USEPA EMSL Cincinnati

Figure 2-21 Strategies for Monitoring Integration and Quality Assurance

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
				2.2.2 (continued) meets minimal federal requirements.		
			1982	All Sludge, NPDES, and Hazardous Waste laboratories meet federal quality assurance requirements.		
2.3 Provide adequate laboratory services consistent with monitoring program needs.	2.3.1 Evaluate annually the regional/state laboratory capabilities for conventional/toxic pollutant analyses.	2.3.1 NJDEP Bureau of Monitoring & Data Management (L) WMWG (S) USEPA Region II S&A Division (S)		2.3.1 Annual evaluation submitted to EPA & DEP by WMWG.		2.3.1 NJDEP State Appropriation CWA Sec. 106

Figure 2-21 Strategies for Monitoring Integration and Quality Assurance

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	2.3.2 Identify unmet laboratory needs.	2.3.2 NJDEP Bureau of Monitoring & Data Management (L) WMWG (S) USEPA Region II, S&A Division (S)		2.3.2 Annual report on laboratory service shortfall		2.3.2 NJDEP State Appropriation CWA Sec. 106
	2.3.3 Prepare plan for upgrading state capabilities to meet analytical requirements for monitoring programs.	2.3.3 USEPA Region II, S&A Division (L) NJDEP Bureau of Monitoring & Data Management (S)	May 1981	2.3.3 5 year Regional Plan to address unmet laboratory service needs.		2.3.3 NJDEP State appropriation CWA Sec. 106

Figure 2-21 Strategies for Monitoring Integration and Quality Assurance

2.10 Other Environmental Management Programs

2.10.1 Management of Environmentally Sensitive Areas

1. NJDEP, as part of the certification documents on all projects requesting Step 1 grant funding, will assure that:

   The study area for the proposed facility plan will be subjected to an environmental contraints analysis according to the "Proposed Policy and Procedures - Consideration of Environmentally Sensitive Areas in Treatment Works, Approval" to be adopted in the Statewide WQM Plan. This analysis will determine environmentally acceptable sewer service areas consistent with requirement (6).

   A waiver signed by the Regional Administrator as detailed in the construction grants regulations of 8/27/78 (40 CFR Part 35 Subpart E Section 917(e)) is required. Upon full approval of the population and land use sections of the 208 WQM plans, a waiver will no longer be required.

2. Since 201 facility planning agencies initiate work on environmental constraints analysis, a statewide coordinated effort will be established to properly collect and utilize the information generated. NJDEP with the assistance of the USEPA Environmental Impacts Branch (EIB) will develop the following outputs during FY'80.

   a. Establish the criteria to be used in evaluating the anticipated project impacts on environmentally sensitive areas. These criteria will be consistent with the November 1979 EPA regulations on implementation of NEPA, and National and Regional policy.

   b. Guidelines for performing constraints analyses to assess individual Facility Plans will be prepared stressing consistency in mapping scale and notation.

   c. Verification of data will be carried out at the regional or county level.

   d. Environmental data from the constraints analysis should be amassed in one central location to be utilized in all planning efforts initiated within the State. A machanism for incorporating the population projections generated by the constraints analysis into the State's certified figures will be adopted.

   e. Municipal permits and sewer extension permits will be subject to the constraints of the ESA policy and procedures.

Funds: 208, 205(g) or special funds

See Fig, 2-22 for Strategies.

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.0 Management Of Environmentally Sensitive Areas						
1.1 Step 1 Project Reviews	1.1.1 Conduct environmental constraint analysis for determining sewer service areas	1.NJDEP,DWR(L) a.Office of Planning and Standards b.Construction Grants Admin	On-going	Constraints Analysis portion of plan reviews		205G
1.2 Selection and utilization of environmental information and generation by 201 facility planning agencies	1.2.1 Establish criteria for evaluating anticipated impacts of projects on environmentally sensitive areas.	1.NJDEP, DWR(L)	Jan. 1981	Revised Policies & Procedures		205G
	1.2.2 Final guidelines for performing constraints analyses	1.NJDEP,DWR(L) 2.EPA,Region II (S)	March 1981	Final Policies & Procedures		205G

Figure 2-22 Strategies for Management of Environmentally Sensitive Areas

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	1.2.3 Assemble environmental data from the constraints analysis into one central location.	1.NJDEP,DWR(L) a.Office of Planning and Standards b.Construction Grants Admin.	On-going	Data depository	.5	205G 208

Figure 2 - 22 Strategies for Management of Environmentally Sensitive Areas

2.10.2 Growth Management

1. An annual evaluation of the 208 county-level population projections will be undertaken to refine projections resulting from 201 facility planning (205(g) or special funds should be used for this activity).

2. The State will develop a mechanism for ensuring that the State certified population projects (county and facility planning area projects) are used in 201 facility planning, and the adjustments in projections resulting from 201 are adopted into the appropriate 208 WQM plan (state or local plan).

3. In accordance with policy set forth in the State/EPA Agreement, State-certified population projections are to be used in all future 201 facility planning. The facility planning area projections should be evaluated as part of the environmental constraints analysis to ensure that the distribution of population reflects protection of environmentally sensitive areas. The results of the environment constraints analysis can than serve as a basis for any adjustment of 208 populaton projections.

4. In order to effectively manage sensitive areas it is necessary to have each 201 facility plan adopted and certified as a 208 output. The 201 plan will include detailed mapping of environmentally sensitive areas. DEP will formally adopt 201 facility plans as 208 outputs during the certification process for 201 facility plan for projects in all 208 planning areas.

   See Fig. 2-23 for Strategies.

2.10.3 Coastal Zone Management

1. The State FY-80 program for implementing the State/EPA Agreement placed heavy emphasis on the development of programs for protection of inland wetlands. Work will continue on this program thorugh FY-81 as needed to meet the requirements of the current work plant. However, in FY-81 it is recommended that emphasis be shifted to coastal area protection.

2. Current state regulatory policies for coastal areas are found in N.J.A.C. 7:7E-1.1 et seq. (Rules and Coastal Resource and Development Policies) and are implemented through CAFRA, the Wetlands Act and the Waterfront Development Act (N.J.S.A. 12:5-3 et seq.). Coastal Wetlands are defined as a Special Area and are subject to a restrictive policy concerning development. Floodplains are not defined as Special Area, but will be so defined by amendments, scheduled for adoption about October 1, 1980. Federal and State regulations affecting coastal area, floodplains and wetlands should be examined for inconsistencies, and necessary changes made, in preparation. for 205(g) delegation.

   See Fig. 2-24 for Strategies.

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.0 GROWTH MANAGEMENT -						
1.1 Evaluate, revise, and refine county and 201 projections.	1.1.1 Evaluate and refine county-level population projection resulting from 201 facility planning.	NJDEP - DWR - OPS Governor's Office of Policy and Planning	Jan. 1981	Facility Planning Area		208,205G
1.2 Co-ordinate the use of state certified county and 201 facility area population projections in other state planning programs	1.2.1 Develop a mechanism ensuring that the State certified population projections are used in 201 facility planning and that adjustments of projections resulting from 201 are adopted in the 208 WQM Plan.	NJDEP-DWR-OPS	1981	Methodology Working Paper		205G

Figure 2 - 23 Strategies for Growth Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
	1.2.2 Adjustments to 201 projections will be made to consider Environmental Sensitive areas.	NJDEP - DWR	On-going	Methodology Plan Reviews		205G
	1.2.3 Mapping of Environmentally Sensitive areas of 201 facility plans and the adoption of these plans as 208 outputs	201-Consultants NJDEP - DWR	On-going	Certified 201 Plan		201
	1.2.4 Develop mechanism ensuring that State certified population projections are used in other State planning programs.	1) NJDEP-DWR-OPS 2) Governor's Office of Policy and Planning	1982	Executive Order		208 205G

Figure 2 - 23 Strategies for Growth Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
1.0 COASTAL MANAGEMENT						
1.1 Define acceptable dredge disposal practices and sites suitable for dredge spoil disposal (with special emphasis on coastal ecosystem protection).	1.1.1 Conduct study of dredge disposal practices and develop criteria for disposal site selection	1) DEP-DCR	June 1981	Report on recommended dredge spoil disposal practices and characteristics of acceptable disposal sites	10 mo.	U.S. Dept. of Commerce -NOAA Coastal Zone Manag. Act PL 92-583 Sec. 306
1.2 Establish improved definitions, policies and rationales to better manage coastal resources and in particular to protect essential coastal habitat areas.	1.2.1 Adopt revisions to Rules on Coastal Resource and Development Policies	1) DEP-DCR	Annual update in November	Amended version of Rules on Coastal Resource and Development Policies was adopted in Sept.'80	2.5	U.S. Dept. of Commerce -NOAA Coastal Zone Manag. Act PL 92-583 Sec. 306
1.3 Develop procedures and mechanisms for ensuring that water resource programs adequately reflect federal policies as stated in Executive Order 11988 (flood	1.3.1 Revise and improve Rules on Coastal Resource and Development Policies concerning wetlands & floodplains 1.3.2 Promulgate regulations under Waterfront Development	1) DEP-DCR	Modified 9/80 Future modifications 9/81 FY 81	CAFRA Policy Statement Regulations promu-		U.S. Dept. of Commerce -NOAA Coastal Zone Manag. Act PL 92-583 Sec. 306

Figure 2-24 Strategies for Coastal Zone Management

STRATEGIES	ACTIVITIES	LEAD/SUPPORT AGENCIES	TIMING	MILESTONES/ OUTPUTS	MAN-YEARS	SOURCES OF FUNDS
plain managment), Executive Order 11990 (wetlands) and Presidential directives on barrier islands.	Act to give DEP-DCR regulatory jurisdiction over coastal wetlands and floodplains outside the CAFRA area.	1) DEP-DCR	9/26/80	lgated 9/26/80		U.S. Dept. of Commerce -NOAA Coastal Zone Manag. Act PL 92-583 Sec. 306
	1.3.3 Update upper wetlands boundry under N.J. Wetlands Act.	1) DEP-DCR	FY 81	Update as necessary	13 months	
1.4 Assemble and continue to develop Geographic Data Base and Intermotion System to locate, analyze, record, and monitor the spatial implications of coastal resource management programs, policies, and decisions and to provide a geographic base for programs, policies, and decisions.	1.4.1 Pilot mapping program in Cape May County	1) DEP-DCR	Completed	Completion of Pilot and recommendations of use in other areas		U.S. Dept. of Commerce-NOAA Coastal Zone Manag. Act PL 92-583 Sec. 306

Figure 2-24 Strategies for Coastal Zone Management

2.11 ROLE OF COUNTIES AND WATER QUALITY MANAGEMENT PLANNING AGENCIES

The management of water resources requires the incorporation of existing County and municipal authority into a coordinated, partnership effort with NJDEP. The coordinated implementation of existing law and authority is required in order to meet the objectives of both the Federal Clean Water Act and New Jersey Quality Law.

In this regard this agreement supports joint efforts of all levels of government to achieve full implementation of all aspects of water resources management. It is designed to bring together water supply, water quality, flood control and storm drainage considerations to meet the needs of the citizens of the State as well as provide for protection of the environment.

In coming years County responsibilities will change as NJDEP prepares to delegate to county governments some traditional NJDEP responsibilities for monitoring, enforcement, and issuance of certain types of permits. Delagation should produce two kinds of benefits. First, for some activities, properly designed and administered county programs may be more efficient than direct NJDEP administration, being closer to the scene. Second, NJDEP should guide and review both existing and new county programs, and should regularly consult with county governments about policy and technical issues. There is a need to develop formal NJDEP-County agreements delineating county roles, and how county programs should be funded.

New Jersey counties already have important responsibilities under authority provided by:

- The County Planning Enabling Act (N.J.S.A. 40:27-1 et seq.) to 1) prepare comprehensive plans which include plans for land use, water supply, water quality, storm drainage, and flood control, and 2) review subdivisions and site plans affecting County facilities.

- The Water Quality Planning Act (N.J.S.A. 58:11A-1 et seq.) to prepare water quality plans consistent with Section 208 of the Federal Clean Water Act,following designation by the Governor (six counties currently designated)

- The County Environmental Health Act (N.J.S.A. 26:3A2-21 et seq.) to provide for County enforcement of State laws for control of water pollution, air pollution, noise, and solid waste, pursuant to State guidelines now in preparation.

- The Sewerage Authorities Law (N.J.S.A. 40:14A-1 et seq.) to create county sewerage authorities to provide for waste collection and treatment works.

- The Municipal and Counties Utilities Authority Law (N.J.S.A. 14B-1 et seq.) to create county utilities authorities to provide for water supply, water pollution control, sewerage, and solid waste services and facilities.

- The County Improvement Authorities Law (N.J.S.A. 40:37A-45 et seq.) to create county improvement authorities to provide for solid waste facilities.

- The County Flood Control Financing Law (N.J.S.A. 40:23-24 et seq.) to permit counties to construct and finance flood control facilities

- The Local Lands and Buildings Law (N.J.S.A. 40A:12-1 et seq.) and the laws related to county parks (N.J.S.A. 40:37-95.13) to acquire lands, waters, equipment, and supplies for conservation purposes and to accept Federal or State aid for that purpose, including lake restoration funds under the Federal Clean Lakes Program

- The Solid Waste Management Act (N.J.S.A. 13:1E-1 et seq.), which designated each county and the Hackensack Meadowlands district as a Solid Waste Management District, and required each county Board of Chosen Freeholders and the Hackensack Meadowlands Development Commission to adopt a solid waste management plan (in 1979 the first plans were submitted for NJDEP approval.

Turning to new programs, the coming years will see major steps towards implementation of the County Environmental Health Act passed in 1977. This broadly written statute permits NJDEP to delegate the administration of one or more aspects of the water pollution, solid waste, noise and air pollution laws to county health departments. This law can be used to address any kind of water pollution or solid waste problem, including but not limited to threats to public health. Before NJDEP can delegate any programs, the law requires that NJDEP first promulgate standards of performance and administrative procedures. County health departments will then have up to fifteen months to prepare a work program for meeting the standards. In counties without county health departments, N.J.S.A. 26:3A2-6 requires the County Board of Chosen Freeholders to submit a detailed report about how the environmental health standards will be met in that county, including a description of administrative organization. Delegation of specific programs to specific counties will be based on NJDEP review of each individual work plan. Municipal health departments that meet the standards and agree to implement the county work program shall be certified by NJDEP as the authorized local government for the performance of environmental health services within their jurisdiction. NJDEP may also "delegate" programs to municipal or regional health departments (the statute is unclear on this point). Substantial appropriations for county or municipal health departments to implement the County Environmental Health Act may be made by the State Legislature, and Federal programs may provide additional funds.

NJDEP has prepared drafts of the standards. The standards identify specific programs that NJDEP thinks are suitable at this time for delegation. Some of these programs are already administered by all or some of the county health departments. Prospective programs include, but are not limited to, issuing permits for non-public and public non-community potable water systems, surveying waterways for unauthorized discharges or water pollutants, monitoring of surface and ground waters and of NPDES of NJPDES discharges in conjunction with NJDEP, enforcement of NJDEP rules and regulations concerning the operation of solid waste facilities, and monitoring spills of hazardous substances.

In FY-81 NJDEP will coordinate the development of work plans with individual counties to delineate county roles pursuant to the County Environmental Health Act.

The following strategies will be used to further define and expand the role of counties and provide for County-NJDEP cooperation:

- NJDEP will review the work programs submitted by county health department or county boards of chosen freeholders, and petitions by municipal or regional health agencies, to meet the above standards. Based on this review, NJDEP will delegate administration of specific programs to specific counties, and will certify municipal or regional health agencies and review county performance.

- NJDEP will support State and Federal funding of effective county programs to implement the County Environmental Health Act and other environmental resource legislation.

- NJDEP will work with the counties establish the continuing role of counties and the designated WQM planning agencies in FY-81. This strategy will stress local implementation of Statewide programs and the continuation of public participation programs.

2.12 Role of the Delaware River Basin Commission in Implementing the State/EPA Agreement

Advanced Waste Treatment

Commission regulations require that all wastes receive at least secondary treatment and when this level of treatment is inadequate to maintain water quality standards, the capacity of the receiving stream to assimilate waste discharges is to be allocated among the waste dischargers, consistent with Section 303 of the Clean Water Act. The allocations form the basis for establishing advanced waste treatment requirements.

The Commission has assumed the responsibility for implementing this policy for the Delaware River, which is an interstate boundary and the boundary between two EPA regions for its entire length.

In the Delaware River Estuary where water quality standards are not always being met, a remedial wasteload allocation program has been undetaken under the leadership of the Commission, in cooperation with the Federal Government and Estuary states, including New Jersey. Allocations based on BOD reductions ranging from 86 to 89 percent are incorporated into NPDES permit requirements. Municipal waste treatment plants in the Estuary funded by the construction grant program must be designed to meet allocations.

The Delaware River Basin Commission has assumed the central role in the development of an improved water quality model of the Delaware River Estuary to meet the needs of area-wide water quality management planning under Section 208 of PL 92-500. The Commission will develop revised waste load allocations to meet 208 planning needs for the Delaware River Estuary, including gross allotments for point and non-point sources of pollution and point source allocations. The program includes determination and apportionment of total maximum daily loads between point and non-point sources, and allocation of the point source total maximmum daily load among the individual point sources.

The Commission has developed a time-varying water quality model of the nontidal Delaware River from Trenton to above the Delaware Water Gap which will be utilized as appropriate, to assess the impact of alternative 208 and related plans on the quality of the Delaware River. The model can be used to establish allocations for this reach of the Delaware River when and if necessary.

NPDES Assumption

Review of the NPDES permits for discharges to Basin waters is a necessary part of Commission activities, especially with regard to allocations. Primary emphasis is on discharges to tributaries with major impact on the Basin's waters. Assistance is provided to EPA and the state as necessary, and the Commission participates in hearings and negotiations in those adjudicatory hearing cases to which it is a party. The objective is to ensure that the Commission's wasteload allocations and its regulations are implemented through the permit process. At present New Jersey certified Commission requirements to EPA for inclusion in NPDES permits. When New Jersey assumes the NPDES program, the state will incorporate Commission requirements in permits directly.

For Delaware Estuary allocation cases, the Commission has arranged to receive copies of NPDES Discharge Monitoring Reports. These reports are analyzed to assess the status of compliance and the residual waste discharge loading of the Delaware River Estuary.

Toxic Substancgs°Control

The Commission is carrying out a study of exotic industrial residuals, whether the residuals occcur or arise as solid wastes, sludges, pre-treatment wastes, or liquid wastes. The first phase, directed to compilation and assessment of an inventory of industrial residuals, disposal operations and capabilities, has been completed. The second phase has been initiated and is directed to a facilities plan for recycling, reclamation, treatment, and final disposal of exotic industrial residuals. The area of study encompasses the Delaware River Basin and all of the State of New Jersey.

Ground-Water Management

The Delaware River Basin Commission (DRBC) has entered into an agreement with the U.S. Water Resources Council to undertake a three-year special study for the development of a regional ground-water management plan and implementation program for the Delaware River Basin.

The principal objectives of the Delaware Basin Special Ground-Water Study are: (1) Establish sound technical criteria for uniform regulatory functions within the Basin states to protect the available quantity of ground water resources and to allocate withdrawal rights when needed in a responsible and equitable manner; (2) Establish guidelines and rules to assure that ground water resources are protected from sources of pollution and are not diminished in quantity by improper waste disposal practices or induction of mineralized water; (3) Guide developments to result

in the best utilization of long-term supplies, promote conjunctive use of ground-water and surface-water sources where feasible and aid in the balancing of water uses with water sources; (4) Present a plan of hydrogeologic data collection and a provision for reliable ground-water information in advance of future requirements for new or modified ground water regulations; (5) Engender the most efficient use of ground water compatible with low stream flow relationships, maintenance of viable wetlands and vegetative cover characteristics; (6) Develop coordination and support among water-use and water-conservation agencies and organizations in the promotion of public interest and participation in the management and safeguarding of the ground water resources of the Basin.

Study outputs, where appropriate, will be considered for inclusion in the Comprehensive Plan. Ground-water quality aspects will be considered.

Role of Water Quality Management Planning Agencies (Section 208)

Commission staff participates in Section 208 studies for designated and non-designated areas in the Basin (six of which are in New Jersey) including policy and technical advisory committees, as well as related regional and state studies. The Commission emphasizes basinwide and interstate concerns related to control of pollution from both point and non-point sources and to the need to assure compatibility among 208 plans, and with the Commission's Comprehensive Plan. The Commission staff prepares a report on each completed 208 study, for each state to use in considering action on certification of each 208 plan.

Commission staff also serves on committees having continuing planning responsibilities for each 208 area to carry out the continuing planning process developed as part of each 208 plan.

Appropriate portions of completed 208 plans will be included in the Commission's Comprehensive Plan.

Antidegradation Policy

The Commission has an antidegradation policy applicable to the Delaware River and its interstate tributaries. As part of the PL 92-500 mandated triennial review of standards, this policy will be reviewed, along with anti-degradation policies in state standards. The goal is to assure compatible policies among the Commission and the Basin States.

Water Supply Management and Conservation

The Commission is conducting a study to assess the impact of water conservation measures on consumptive uses of water and their relationship to instream uses of water and water demand projections. The study concentrates on key users of water, in particular industries and utilities which account for the preponderance of consumptive water use in the Basin.

The focus of the study is how conservation measures, on a regular basis and for a drought emergency, affect cooling and processing uses of water. Effect on temperature differentials will be examined to estimate potential changes in in-stream evaporation resulting from changes in heat discharges.

Water Quality/Water Supply Integration

The Commission is conducting a Level B (Section 209) study of the Delaware River Basin. Study outputs will be considered for inclusion in the DRBC Comprehensive Plan. The inter-linkages of 209 study outputs to water quality management programs, including 208 plans, will be considered in the comprehensive DRBC water quality/water supply planning programs.

The Commission has completed development of a mathematical deterministic salinity intrusion model of the Delaware Estuary, including the entire tidal Delaware River and Delaware Bay. The model relates chloride concentrations at specific locations along the estuary to fresh-water inflows from the Delaware River at Trenton and seaward tributaries. Extensive Commission staff efforts were devoted to use of the salinity model to determine the effects of various reservoir operation schemes, out-of-basin water diversions, and projected consumptive water use on the levels of salinity (total dissolved solids), chlorinity, and sodium in water supplies taken from the tidal waterway, either directly as surface water, or indirectly from aquifers that are recharged in part by the tidal river. Additional studies will be made with the model to provide inputs to the comprehensive study of salinity, including an investigation of the economic impacts of potential salinity changes, being conducted by the U.S. Army Corps of Engineers, Philadelphia District.

Urban/Suburban Stormwater Runoff Control

The impact of stormwater control programs on the Delaware Estuary will be assessed utilizing the improved model of Estuary Water Quality.

Agricultural and Rural Runoff Control

Agricultural and rural runoff influence the quality of the Delaware Estuary as part of the loadings from tributary streams. These loadings and the impact of changes in these loadings on Estuary quality will be assessed with the improved model of Estuary water quality.

Monitoring Integration

The Commission has a cooperative sampling and monitoring program for the Delaware Estuary and Bay with the three Estuary States. Under a Commission contract (boat runs) with the State of Delaware, water samples are collected at selected locations in the Delaware River and Bay and analyzed. The data obtained by this contract meets the needs of New Jersey for monitoring of the quality of the water column of the Delaware Estuary. Through a contract with New Jersey, the Delaware River at Trenton and waste discharges to the Delaware River Estuary are sampled and analyzed.

The Commission has responsibility for developing a single overall National Ambient Water Monitoring Program for the Delaware River. THe initial emphasis was on the final selection of stations and initiation of routine monthly water quality analyses, which began in May of 1979. In Fiscal 1981 planning for initiation of monitoring for organics will be continuing.

The States look to the Commission to satisfy the requirement of Section 305(b) of PL 92-500 for the Delaware River. The Commission's 305(b) reports for the Delaware River include a discussion of existing water quality, comparison with standards, and an assessment of water quality problems from point and non-point sources, which the Basin States use in preparing their own 305(b) reports. With the passage of PL 95-217, 305(b) reports are required every other year and the next report is due in Fiscal 1982.

Management of Environmentally Sensitive Streams

DRBC is empowered to protect the Basin's tidal and fresh water wetlands from encroachments. A policy adopted in 1978 requires that no activity or project affecting large wetlands areas can proceed without DRBC clearance and further that only in the case of "overriding public interest" will encroachments be permitted. The protection is designed to preserve wetland areas of 25 or more acres through DRBC's project review process but also covers smaller marshes in some cases. The policy, part of the DRBC Comprehensive Plan, requires balanced assessment of environmental and economic impact of any activity that could adversely affect marshes, swamps, bogs and other wetlands in the Basin.

The Commission has standards that must be followed when developing flood plains along non-tidal streams in the Basin. The standards for the non-tidal flood plains provide guidelines for state and local governments to regulate streamside development through compatible zoning to control residential, industrial, business and public works uses. DRBC reviews some projects on flood hazard lands along the main stem and major tributaries provided state or local reviews are not being made. These include developments of large acreage single structures or of 25 or more residences. The review also covers mining, manufacturing, processing, storage or disposal developments that would pose a pollution threat if flooded.

Delaware Estuary Zone 2 Water Quality Study

DRBC Resolution No. 8-12 authorizes and approves the submission of this study proposal. The 25-mile estuary zone is of extreme importance as it is impacted by drainage from 60% of the Delaware Basin and, in turn, affects downstream water quality and water supplies. The study will determine feasible alternatives to carbonaceous oxygen demand reductions in the zone. It also includes in its objectives improved passage of anadromous fish to New Jersey and Upper Delaware Basin waters.

2.13 THE ROLE OF THE INTERSTATE SANITATION COMMISSION

When performed in the Northeastern part of New Jersey, many of the water quality management responsibilities and activities dealt with in this Agreement are cooperative concerns of the Department of Environmental Protection and the Interstate Sanitation Commission. The Commission undertakes tasks in support of the New Jersey program and also provides necessary coordination with the State of New York.

The interstate Sanitation Commission functions pursuant to NJSA sec. 32:18-1 et seq.

The Commission supports the State in data gathering and analyses, monitoring, effluent and receiving water standards, research, NPDES certification or SPDES permit processing and related activites, and water quality management planning. Within the specific context of the 8 issues set forth in this State-EPA Agreement, the Commission will do the following:

1. Toxics and Hazardous Substance Control

The Commission will increase its monitoring and sampling for toxic substances in effluents and receiving waters. All Commission data thus obtained and the accompanying analyses and information will continue to be available to the State.

In the implementation of the State's pretreatment program, requirements placed on POTW's and on industrial discharges into publicly owned sewer systems are necessarily related. The Commission's monitoring, effluent and receiving water quality programs will be resources employed to ascertain pretreatment needs and progress. Information from the Commission's studies of municipal sludge problems will also assist in assessing industrial dischage relationships to POTW outputs, receiving water quality and pretreatment needs.

The Commission's project on hazardous materials and incident control is specifically designed to analyze the current regional situation with respect to escape of oil and hazardous substances into the environment and to ascertain what measures can be taken by the states on a cooperative basis in addition to those already developed under the regional and national response team efforts. The Commission will continue to assist New Jersey in examining, developing and instituting such measures and in providing means for information exchange with neighboring states.

The Commission augments its regular water area surveys with special runs, samplings and analyses to check on problem conditions. As needed, these will be made to assist in detecting and monitoring unusual toxic conditions.

3. Nonpoint Source Control

Stormwater runoff is the main vehichle for nonpoint source contributions to pollution of tidal waters in the New Jersey portion of the Interstate Sanitation District. The Commission will continue its attention to stormwater runoff and to the combined sewer problem as a whole.

4. Point Source Control

The Commission performs much of the water quality monitoring in the tidal waters of Northern New Jersey. It will continue to do so and will continue to act for the State and for the U.S. EPA in compliance monitoring, ambient water quality monitoring, and effluent discharge monitoring on a regular, periodic basis. By mutual arrangement with the Commission and continuing consultation, these activities will be coordinated with those of the DEP. The efforts will be mutually supportive and care will be taken to avoid needless duplication.

The Commission will continue to perform its regular inspections and samplings of public and industrial treatment plants discharging to the New Jersey portion of the Interstate Sanitation District. It will also continue to participate with the State in review of NPDES or SPDES permits and to consult on specific provisions required therein to meet effluent requirements and to make progress in achieving satisfactory water quality conditions in the tidal waters of the Region.

6. RCRA Authorization

As indicated in discussing the item on Hazardous Substances Control, the Commission is actively engaged in examining regional aspects of hazardous incident and materials management. This work involves study of measures which could be taken on a cooperative regional basis. Because the wastes with which RCRA is concerned are in many instances the subject of interstate shipment, the Commission's regional focus will be used in appropriate instances for consideration of problems connected with RCRA implementation.

8. NPDES Assumption

The Commission will continue to work with the State in developing its SPDES program as it affects the Interstate Sanitation District. When the State assumes operation of a system, the Commission will use its data, monitoring and related activities to support the drafting, issuance and review of permits for discharges within or affecting the Interstate Sanitation District.

SPECIFIC INTERSTATE SANITATION COMMISSION OUTPUTS FOR FY 1981

Outputs of the Interstate Sanitation Commission in support of New Jersey program commitments made in this Agreement are shown on the attached form. The nature of Commission participation under some of the issues does not lend itself to the identification of defined outputs at this time, except to the extent that activities are delineated in the statements of Commission participation set forth in the previous section. The reason is that the State rather than the Commission will determine in particular instances how much of the Commission's information and documentation it will need for individual projects or undertakings in which it comes to be engaged. Moreover, the Commission has its own grant agreements with the U.S. EPA and more properly accounts for its Section 106 funds there rather than in connection with this Agreement.

Nevertheless, under some of the issues, it is possible to identify specific amounts of work which will be performed and some of the activities undertaken by the Commission for all of its member states on a joint basis which will be directly applied by New Jersey to its own program use. The identification of outputs made here is only of items which are ascertainable and susceptible of statement in advance on a basis of separate performance for the State of New Jersey.

INTERSTATE SANITATION COMMISSION OUTPUTS TO SUPPORT
THE NEW JERSEY-U.S. EPA AGREEMENT FOR FY 1981

ACTIVITY	WORK OUTPUT
NPDES Compliance Monitoring	13 installations
Routine Effluent Monitoring of Wastewater Treatment Facilities	60 installations
Receiving Water Monitoring	
A) Average of 1 boat trip/month/run	analyses for 240 station samples
B) Special boat sampling	as required
C) 3 Remote Monitors	hourly readings
Laboratory Analyses for Toxic and Other Substances	Based upon sampling by or for NJ DEP
Technical Support of Water Quality Management Planning Agencies	Attend relevant meetings and such support as appropriate
Industrial Pretreatment	Attend such meetings as necessary to support State Program and provide information and data as needed
305(b) analysis and report preparation	Analyze all data collected and prepare report on the status of New Jersey waters within the Interstate Sanitation District for inclusion in the State report to the U.S. EPA.

3. SEA FY'81 UPDATE

RESOURCE SUMMARY BY FUNDING SOURCE

GRANT		FEDERAL	STATE	TOTAL
106		$1,334,000	$3,653,035	$ 4,987,035
201		112,524,500	12,002,613	124,527,113
205 (g)		3,692,263[1]	1,000,000[2]	4,692,263
208		1,680,250[3]	453,417	2,133,667
314[4]		882,300	549,736[5]	1,432,036
SDWA				
a.	Public Water System/Supervision	540,100	305,044	845,144
b.	U.I.C.	112,050	37,350	149,400
RCRA				
a.	Planning	105,952	35,318	141,270
b.	Open Dump Inventory	158,928	------	158,928
c.	Hazardous Waste	853,000	830,568	1,683,568
TOTALS		$121,883,343	$18,867,081	$140,750,424

1 Includes FY81 Federal Funds Plus Prior Year Carry Over Funds.

2 State Funds to Supplement the Administration of the Construction Grants Program.

3 Includes 355,250 for Stormwater Project Support.

4 Four Public Lake Projects Proposed for FY81 Funding.

5 Includes approximately $504,000 in Bond Funds from Green Acres Program.

4. Explanation of Abbreviations - SEA

AST - Advanced Sewage Treatment
AWT - Advanced Wastewater Treatment
BAT - Best Available Technology
BMP - Best Management Practices
BOD - Biochemical Oxygen Demand
BSA - Bureau of Systems Analysis
CAC - Citizen Advisory Committees
CAFRA - Coastal Area Facilities Review Act
CBOD - Carbonaceous BOD
CGA - Construction Grants Administration
CSO - Combined Sewer Overflow
CWA - Clean Water Act (e.g. Sections 106, 201, 205(g), 208, 314)
CWC - Clean Water Council
DCR - Division of Coastal Resources
DEP - Department of Environmental Protection
DEQ - Division of Environmental Quality
DRBC - Delaware River Basin Commission
DVRPC - Delaware Valley Regional Planning Commission
DWR - Division of Water Resources
EPA - Environmental Protection Agency
FY - Fiscal Year
HMDC - Hackensack Meadowlands Development Corporation
HMP - Hazard Management Program
I/A - Innovative/Alternate
ISC - Interstate Sanitation Commission
M & P - Monitoring and Planning
MSIS - Model States Information System
NEPA - National Environmental Policy Act
NJDA - New Jersey Dept. of Agriculture
NOAA - National Oceanic and Atmospheric Administration
NOD - Nitrogeneous Oxygen Demand
NJDOE - New Jersey Department of Energy
NJPDES - New Jersey Pollutant Discharge Elimination System
NJWPB - New Jersey Water Policy Board
NPDES - National Pollutant Discharge Elimination System
NPS - Non-Point Sources
OCTSR - Office of Cancer & Toxic Substances Research
OHSC - Office of Hazardous Substance Control (now Division of Emergency and Hazard Management)
OPS - Office of Planning & Substances
PECTS - Program of Environmental Carcinogens and Toxics Substances (now OCTSR)
POTW - Publicly Owned Treatment Works
PWS - Public Water System
RCRA - Resource Conservation & Recovery Act
S & A - Surveillance & Analysis

SCD - Soil Conservation District
SCS - Soil Conservation Service
SDWA - Safe Drinking Water Act
SEA - State/EPA Agreement
SPCC - Spill Prevention Contaminant and Countermeasure
SSCC - State Soil Conservation Committee
STP - Sewage Treatment Plant
SWMD - Solid Waste Management District
TOSCA - Toxic Substance Control Act
TSCA - Toxic Substances Control Act
UIC - Underground Injection Control
USGS - U.S. Geological Survey
WLA - Waste Load Allocation
WMWG - Water Monitoring Work Group
WPCA - Water Pollution Control Association
WQME - Water Quality Management Element
WQMIS - Water Quality Management Information System
WQS - Water Quality Standards
WSFPM - Water Supply and Flood Plain Management
WSMP - Water Supply Master Plan

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STATE/EPA AGREEMENT FY'81 UPDATE
OUTPUT COMMITMENT TABLE
FOR SECTION 106 GRANT

ACTIVITY	FY'79 ACTUAL	FY'80* ACTUAL	TOTAL PROJECTED	FY'81 QUARTERLY 1	2	3	4
1. Conduct laboratory quality assurance training sessions	1	2	3	1	1	1	0
2. Number of stations monitored (EPA basic network requirements)	31	N/A	31*	31	31	31	31
3. Number of Stream Encroachment projects reviewed	308	357	500	125	125	125	125
4. 314 grant applications approved	1	3	4	1	1	1	1
5. Number of lakes sampled (trophic status)	25	N/A	75	20	10	20	25
6. Conduct intensive monitoring surveys (ambient water quality)	0	8	4	4	0	0	0
7. Industrial compliance evaluation inspections (Major)	254	177	648	162	162	162	162
8. Municipal compliance evaluation inspections (Major)	346	237	528	132	132	132	132
9. Industrial 24 hour sampling surveys (Major)	N/A	N/A	20	2	6	6	6
10. Municipal 24 hour sampling surveys (Major)	N/A	N/A	20	2	6	6	6
11. Municipal operation and maintenance inspections (Major)	54	28	36	9	9	9	9

N/A - NOT AVAILABLE
*ALL STATIONS WILL BE SAMPLED EACH QUARTER IN FY'81

ACTIVITY	FY'79 ACTUAL	FY'80* ACTUAL	TOTAL PROJECTED	FY'81 QUARTERLY 1	2	3	4
12. Compliance monitoring - number of inspections in compliance	N/A	N/A	2,680	670	670	670	670
13. Wasteload allocations completed	47	41	48	12	12	12	12
14. NPDES Certifications: Municipal (Major)	N/A	N/A	4	2	2	0	0
15. NPDES Certifications: Municipal (Minor)	276	315	6	3	3	0	0
16. NPDES Certifications: Industrial (Major)	N/A	N/A	25	10	15	0	0
17. NPDES Certifications: Industrial (Minor)	N/A	N/A	200	75	125	0	0
18. Draft NPDES permits: Municipal (Major)	3	0	50	10	10	15	15
19. Draft NPDES permits: Municipal (Minor)	1	3	60	10	10	20	20
20. Draft NPDES permits: Industrial (Major)	3	6	100	15	15	30	40
21. Draft NPDES permits: Industrial (Minor)	11	3	84	12	12	30	30
22. Issue NPDES permits (surface & groundwaters)	N/A	N/A	294	25	44	100	125
23. Number of pretreatment plans reviewed	N/A	N/A	40	10	10	10	10
24. Number of pretreatment compliance schedules modified for reincorporation into NPDES permit	N/A	N/A	20	5	5	5	5
25. Sewer Extension Permits issued	N/A	N/A	214	60	44	50	60
26. Evaluate discharge monitoring reports	N/A	N/A	125	0	0	50	75
27. Enforcement actions initiated	N/A	N/A	400	100	100	100	100
28. Enforcement actions closed	N/A	N/A	300	75	75	75	75

ACTIVITY	FY'79 ACTUAL	FY'80* ACTUAL	TOTAL PROJECTED	FY'81 QUARTERLY 1	2	3	4
29. Investigate (on-site) point source residuals disposal methods	N/A	N/A	160	20	30	45	65
30. Issue septic system installation permits	N/A	N/A	400	100	80	110	110
31. Groundwater investigations	15	172	5	2	1	1	1
32. Emergency Response Actions	596	943	984	246	246	246	246

APPENDIX B

Safe Drinking Water Act (P.L. 95-190) Work Plans (including Output Commitments)

The Work Plans for two grants (Section 1421(b) - Issuance of Permits for underground injection; Section 1443(a) - Grants to States for public water system supervision) under the Safe Drinking Water Act are herein appended.

UNDERGROUND INJECTION CONTROL GRANT FY 81

TASKS	ACTIVITIES	OUTPUTS	TIMING	WORK YEARS	COSTS
1. Inventory existing injection wells	A. Prepare a list of industries, municipalities, and other interested parties to whom questionnaires may be sent regarding underground injection includes; county health boards, well drilling companies.	List of interested and affected parties.	April, 1981	1.23 M.Y.	$49,400
	B. Mail questionnaire to those facilities that responded in the affirmative regarding use of injection for fluid storage or disposal.	Detailed questionnaire mailed.	June, 1981		
	C. Tabulate responses from mailing.	Table of responses.	July, 1981		
2. Classification of wells	A. Based on information generated in Task I classify all existing injection wells ranging from Class I to Class V.	Classification of injection wells.	August, 1981	.95 M.Y.	$38,000
	B. Upon completion of inventory, tabulate according to well classification and industries.	Description of inventory according to well type and industry.	August, 1981		
	C. Prepare and distribute fact sheets on findings of the inventory to all interested parties.	Fact sheet distributed.	Sept., 1981		
3. Identification of underground sources of drinking water (USDW) *	A. Data assessment for aquifer identification.	Report which identifies availability of geohydrologic data.		1.25 M.Y.	$50,000
	B. Delineate aquifers and pubic water supplies utilizing existing data.	Report on aquifer delineation and location of of public water supply wells.			
	C. Based on information obtained as part of A & B: 1. Identify exempted aquifers 2. Describer aquifers to be protected	Report with maps of exempted aquifers with description of aquifers to be protected.			

UNDERGROUND INJECTION CONTROL GRANT FY 81 CONT'D.

TASKS	ACTIVITIES	OUTPUTS	TIMING	WORKYEARS	COSTS
4. Assessment of environmental impact from injection wells. *	A. Rank discharges within classification criteria in order to prioritize enforcement and permitting activities.	Underground injection problem prioritization report.		1.0 M.Y.	$40,000
	B. Determine geographical areas where injection wells are primary source of aquifer contamination.				
	C. Compile data into a report listing injection well problems.				
5. Legislation review.	A. Review existing legislation and/or regulations to determine if authorities exist for underground injection control.	Report identifying specific legislation and regulations reviewed.	Oct., 1980	.10 M.Y.	$ 4,000
	B. Assess regulatory and legislative requirements of other states.	General report on injection programs in other states.	Nov., 1980		
	C. Develop necessary legislation.	UIC legislation.	Dec., if necessary		
6. Development of guidelines and criteria for underground injection control program. *	A. Develop construction specifications/requirements to ensure mechanical integrity and corrective action.	Guidelines describing specifications for mechanical integrity, corrective action procedures and a fact sheet on the UIC permit program.		.25 M.Y.	$10,000
	B. Develop criteria to address construction, operation, monitoring, and reporting requirements.	Document describing criteria which may be used in the design and construction of pollution control facilities and to aid in the review and issuance of permits.			
	C. Adopt guidelines to determine an area of review associated with injection wells as per 40 CFR 146 regulations.	Guidelines describing specific. Areas of review.			
7. UIC permit process. *	A. Develop permit process including procedures & time frames for applications.	Draft permit process.		.25	$10,000
	B. Submit draft permit process to state agencies & EPA for review and comment.	Final permit procedures.			
	C. Develop permit application storms.	UIC permit application form.			
	D. Preparation of comprehensive permit program operation procedures.				

UNDERGROUND INJECTION CONTROL GRANT FY 81 CONT'D.

TASKS	ACTIVITIES	OUTPUTS	TIMING	WORKYEARS	COSTS
8. Prototype UIC permit program implementation for test case areas. *	A. Test permit program feasibility by issuing permits for a few test cases in each category. B. Review & evaluate applications and develop effluent limitations on application rates and incorporate into the permit. C. Modifications in permit process will be made as required.	Application reviewed, test case permits developed and issued.		1.50	$60,000
9. Monitoring activities for test case areas. *	A. Evaluate permittee self-monitoring reports to determine permit compliance. B. Evaluate permittee monitoring efforts. C. Require compliance with quality assurance practices and procedures. D. Require review and evaluate result of ambient quality. E. Evaluation of the permit program.	Review and evaluation of ambient and self-monitoring reports. Evaluation of progress concerning UIC test case permits.		.75	$30,000
10. Track permit compliance. *	A. Develop and implement a permit enforcement tracking system. B. Develop priorities for referrals of non-compliance enforcement section of the Division. C. Develop appropriate list of required applications and issue permits and compliance schedules. D. Provide input on con-compliance cases in test case areas.	Permit compliance - enforcement referral tracking system.		.75	$30,000
11. Preparation and submittal of application for primacy.	A. Letter from Govenor requesting primacy. B. Attorney General's statement demonstrating state has the necessary legal authority to administer the UIC program. C. Preparation of the program description. D. Obtain approval of UIC program. E. Copies of relevant regulations, statutes, and program forms.	Signed letter from Governor. Attorney General's statement. Program description. Program approval. Copies of forms submitted.	Jan., 1981 Dec., 1980 Dec., 1980 April, 1981 Jan., 1981	1.25 M.Y.	$50,000

UNDERGROUND INJECTION CONTROL GRANT FY 81 CONT'D.

TASKS	ACTIVITIES	OUTPUTS	TIMING	WORKYEARS	COSTS
11. Preparation and submittal of application for primacy. (cont'd.)	F. Memorandum of agreement developed and signed.	M.O.A.	Feb., 1981		
12. Public participation.	A. Involve the public in decision making activities re: UIC.	Public participation program.	on-going	.10 M.Y.	$ 4,000
13. Project management.	A. To assure proper, coordinated management control of all UIC grant development and implementation activities in a timely, cost-effective manner.	Appoint a project coordinator Monitor progress of grant. Develop management reports. Develop administrative procedures. Meet and coordinate with advisory groups, et. al. as necessary.	on-going	.05 M.Y.	$ 2,000
14. Formal application for primacy.	A. Submit application to USEPA for primacy. B. Incorporate revisions as required.		Jan., 1981	.05	$ 2,000
			TOTALS	3.73 M.Y.	$149,400

*Addendum items to be included if funds become available.

TOTAL ADDENDUM ITEMS	5.75 M.Y.	$230,000
GRAND TOTAL FOR ENTIRE WORKPLAN	9.48 M.Y.	$379,400

Public Water System Supervision Program Grant

Program Narrative

Performance Analysis (Selected Items)

	Anticipated FY 80	Actual FY 80	Anticipated or Planned FY 81	
Project Review				
Projects approved	100	130		103
Projects disapproved	5	2	3	
Physical Connection Permits				
Original	10	27	14	
Renewals	250	275	288	
Detailed Community Water System Evaluation	-	-	100	
Inspections and Investigations				
Community Supplies	500	317	500	
Routine	-	-		490
Initial	-	-		10
Non-Community Supplies	500	749	500	
Routine	-	-		100
Initial	-	-		400
New Wells	30	57	30	
Physical Connections	25	47	30	
Complaint Investigations	100	157	110	
Supplies Resampled	100	127	110	
Special Sampling/ Investigations	200	518	300	
Samples Collected and Evaluated				
Bacteriological	3000	3773	2500	
Biological	20	0	0	
Radiological	50	85	50	
Inorganic	6000	5773	6000	
Organic	2000	930	800	
Pesticides	-	-		20
Volatile Organics	-	-		700
Other	-	-		80
Emergencies Evaluated	60	48	50	
Orders Issued	15	11	25	
Laboratories Inspected	-	-	65	
Reinspection	-	67		60
Initial	-	2		5

	Anticipated FY 80	Actual FY 80	Anticipated or Planned FY 81
Reporting			
Inventory update	1	1	1
Annual violation/ compliance report	1	1	1
Monthly violation/ compliance report	12	9	12
Enforcement			
Implementation plan for enforcement strategy			1
SDWA Compliance			
Bacteriological			
CPWS having violations for			
MCL			36
Not Reporting			350
Monitoring Deficiency			50
CPWS failing to issue public notification for:			
MCL			10
Not Reporting			100
Monitoring Deficiency			10
Turbidity			
CPWS having violations for:			
MCL			24
Not Reporting			6
Monitoring Deficiency			2
CPWS failing to issue public notification for:			
MCL			6
Not Reporting			2
Monitoring Deficiency			1
Chemical (Inorganic)			
CPWS having violations for:			
MCL			36
Not Reporting			36
Monitoring Deficiency			24
CPWS failing to issue public notification for:			
MCL			6
Not Reporting			12
Monitoring Deficiency			10
Chemical (Organic)			
CPWS having violations for:			
MCL			0
Not Reporting			3
Monitoring Deficiency			3
CPWS failing to issue public notification for:			
MCL			0
Not Reporting			2
Monitoring Deficiency			2

	Anticipated or Planned FY 81
Trihalomethanes	
CPWS having violations for	
MCL	2
Not Reporting	2
Monitoring Deficiency	4
CPWS failing to issue public notification for:	
MCL	1
Not Reporting	1
Monitoring Deficiency	1
Radiological	
CPWS having violations for:	
MCL	4
Not Reporting	20
Monitoring Deficiency	30
CPWS failing to issue public notification for:	
MCL	1
Not Reporting	5
Monitoring Deficiency	10
Non-Community PWS	
NCPWS having violations for:	
MCL	60
Not Reporting	400
Monitoring Deficiency	60
NCPWS failing to issue public notification for:	
MCL	20
Not Reporting	100
Monitoring Deficiency	20

APPENDIX C

Resource Conservation and Recovery Act of 1976 (P.L. 94-580) Work Plans (including Output Commitments)

The Work Plans for three grants (Section 3011, Subtitle C - Hazardous Waste Management; Section 400 B, Subtitle D - Planning; and Inventory of Open Dumps) under the Resource Conservation and Recovery Act are herein appended.

HAZARDOUS WASTE MANAGEMENT

The 1981 DEP hazardous waste management program to be pursued using federal grant funds and State matching monies has three main purposes:

1) establishment and conduct of a "cooperative arrangement" with EPA Region II to ensure that the federal hazardous waste program is implemented from the period beginning November 19, 1980 and ending when New Jersey receives Interim Authorization;

2) development and implementation of a program substantially equivalent to the federal program; and

3) application for Interim Authorization and conduct of the authorized State program from the effective date of authorization through September 30, 1981.

The activities to be conducted by DEP will occur during three distinct periods:

1) October 1, 1980 through November 18, 1980, before the RCRA hazardous waste regulations are effective;

2) November 19, 1980 through the date on which New Jersey receives interim authorization, during which time the federal program will be conducted pursuant to a "cooperative arrangement" between EPA and DEP; and

3) The effective date of interim authorization through September 30, 1980, when the State program will be operated in lieu of the federal program.

The activities to be conducted pursuant to this agreement are shown on the following pages. In addition, the outputs to be produced as a result of each activity are assigned a target date of completion. The columns following each activity and output show the agreement period pertinent to that activity or output. Each activity or output within these "timing" columns is denoted by an "X" or an "O", respectively.

	WORK-YEARS REQUIRED	PERIOD ONE	PERIOD TWO	PERIOD THREE
I. STATE PROGRAM ADMINISTRATION				
A. LEGISLATION AND REGULATIONS	2			
1. Development of substantially equivalent regulations and evaluation of existing legislation.				
a) Review public comments on proposed regulations		X	X	
b) Revise proposed regulations as necessary			X	
c) Assess need for new legislation/regulations or amendments to comply with Phase II federal regulations and full authorization requirements			X	X
d) Begin revision of legislation/regulations to comply with requirements of full authorization				X
OUTPUTS:				
1. Hearing report on proposed regulations (by December 15, 1980)			0	
2. Adopted substantially equivalent Phase I hazardous waste management regulations (by December 31, 1980)			0	
3. Adopted substantially equivalent Phase II hazardous waste management regulations (within 6 months of promulgation of final Phase II RCRA 3004 regulations)				0

	WORK-YEARS REQUIRED	PERIOD ONE	PERIOD TWO	PERIOD THREE
B. COOPERATIVE ARRANGEMENT/INTERIM AUTHORIZATION APPLICATIONS	2			
1. Develop Cooperative Arrangement				
a) Prepare Memorandum of Understanding		X		
b) Prepare Development Plan		X		
c) Prepare Certificate of Authority		X		
2. Apply for Phase I Interim Authorization				
a) Negotiate Interim Authorization			X	
i) Negotiate Memorandum of Agreement			X	
ii) Meet with EPA to review application			X	
iii) Revise application as necessary			X	
3. Apply for Phase II Interim Authorization				
a) Review EPA conditions for Phase II Interim Authorization				X
b) Review legislation/regulations				X
c) Prepare authorization application				X

	WORK-YEARS REQUIRED	PERIOD ONE	PERIOD TWO	PERIOD THREE
OUTPUTS:				
1. Memorandum of Understanding (by November 6, 1980)		0		
2. Development Plan (by November 6, 1980)		0		
3. Certificate of Authority (by November 6, 1980)		0		
4. Complete Phase I Interim Authorization application (by January 15, 1981)			0	
5. Complete Phase II Interim Authorization application (within 6 months of promulgation of final Phase II RCRA 3004 regulations)				0
C. HAZARDOUS WASTE PROGRAM DEVELOPMENT/ADMINISTRATION	6			
1. Program Development				
a) Develop State-specific program strategies		X	X	X
i) Review studies identifying State needs for hazardous waste program		X	X	X
ii) Consider alternative strategies to meet State needs and federal guidance		X	X	X
iii) Develop preferred strategy		X	X	X
iv) Consult with EPA Regional Office		X	X	X

	WORK-YEARS REQUIRED	PERIOD ONE	PERIOD TWO	PERIOD THREE
b) Prepare program procedures				
i) Review federal guidance		X	X	X
ii) Draft operating procedures and review with EPA Regional Office personnel		X	X	X
iii) Establish Hazardous Waste program procedures including manifest, permit and laboratory procedures		X	X	X
2. Public Participation				
a) Develop public participation work plan according to EPA guidance		X	X	X
b) Determine need for and location of hearings		X	X	X
c) Schedule and plan agenda for hearings		X	X	X
d) Plan procedures for responding to public comments received		X	X	X
3. Develop ADP or other information systems				
a) Work with EPA Regional Office to adapt ADP system to State needs		X	X	X

	WORK-YEARS REQUIRED	PERIOD ONE	PERIOD TWO	PERIOD THREE
4. Program Administration				
a) Manage program				
i) Conduct and attend meetings		X	X	X
ii) Receive visitors		X	X	X
iii) Respond to inquiries		X	X	X
iv) Maintain correspondence		X	X	X
v) Hire and develop staff		X	X	X
b) Administer financial assistance				
i) Process grant funds		X	X	X
ii) Prepare progress reports		X	X	X
iii) Participate in review meetings		X	X	X
c) Evaluate personnel and program performance				
i) Identify performance objectives		X	X	X
ii) Review performance with State personnel		X	X	X
iii) Review State progress with EPA Regional Office		X	X	X

	WORK-YEARS REQUIRED	PERIOD ONE	PERIOD TWO	PERIOD THREE
iv) Recommend rewards and sanctions		X	X	X
d) Conduct public awareness activities				
i) Identify appropriate media		X	X	X
ii) Issue press releases, hold meetings, etc.		X	X	X
e) Maintain ADP system				
i) Modify design and program as needs change		X	X	X
ii) Input data and run reports		X	X	X
5. Contract Management				
a) Issue requests for proposals		X	X	X
b) Review proposals		X	X	X
c) Review technical aspects of contracts		X	X	X
d) Manage financial aspects of contracts		X	X	X
6. Fiscal and Support Services				
a) Develop budget and justification consistent with State budgeting procedures		X	X	X
b) Manage budget		X	X	X

	WORK-YEARS REQUIRED	PERIOD ONE	PERIOD TWO	PERIOD THREE
c) Provide maintenance, housekeeping, communications services		X	X	X
7. Provide Laboratory Services				
a) Establish quality assurance procedures acceptable to EPA Surveillance and Analysis Division		X	X	
b) Expand current financial resources to develop and maintain quality assurance program and initiate in-house laboratory services			X	X
8. Conduct Staff Training				
a) Assess training needs for present and new staff		X	X	
b) Develop training program			X	
c) Implement training program			X	X
OUTPUTS:				
1. Public participation plan (in December 31, 1980 quarterly report)			0	
2. Three public hearings on proposed regulations and Cooperative Agreement (October 20, 22, 23; 1980)		0		
3. Report on State-specific program strategy (in June 30, 1981 quarterly report)				0

	WORK-YEARS REQUIRED	PERIOD ONE	PERIOD TWO	PERIOD THREE
4. Report on operational procedures including manifests and permit system (in June 30, 1981 quarterly report)				0
5. Quality assurance procedures and laboratory needs assessment (in December 31, 1980 quarterly report)			0	
6. Report on public participation activities (in all quarterly reports)		0	0	0
7. Report on training activities (in all quarterly reports)		0	0	0
D. GRANT APPLICATION	2			
1. Apply for grant				
a) Review EPA regulations for hazardous waste program grants				X
b) Prepare initial application				X
2. Negotiate/Receive grant award				
a) Meet with EPA at State office to discuss program and grant				X
b) Coordinate with other SEA programs				X
c) Make final application				X
3. Administer grant				
a) Process grant funds				X

	WORK-YEARS REQUIRED	PERIOD ONE	PERIOD TWO	PERIOD THREE
b) Prepare progress reports			X	X
c) Participate in review meetings			X	X
OUTPUTS:				
1. Draft FT-82 grant application (in June 30, 1981 quarterly report; assuming EPA guidance on schedule in February, 1981)				0
2. Public hearings on FY-82 grant/SEA (September, 1981)				0
3. Completed FY-82 grant application (September, 1981)				0
II. MANIFEST SYSTEM	10.5			
A. Provide technical assistance to generators, transporters, and owners/operators of treatment, storage or disposal facilities (TSDs)		X	X	X
B. Review reports*				
1. Receive exception reports*			X	X
2. Receive discrepancy reports*			X	X
3. Receive unmanifested waste reports*			X	X
4. Process for ADP system			X	X

*NOTE: During the Cooperative Arrangement (Period Two), EPA Region II will send these reports to the State for review.

	WORK-YEARS REQUIRED	PERIOD ONE	PERIOD TWO	PERIOD THREE
5. Review ADP reports and forward summary reports to EPA Regional Office			X	X
6. Evaluate data			X	X
7. Respond to exceptions, discrepancies (shared with enforcement)			X	X
C. Coordinate interagency jurisdictional issues with other State agencies (BPU, DOT, AG, L&PS, etc.)				
OUTPUTS:				
1. Quarterly progress reports on manifest system including numbers of exception reports, unmanifested waste reports, manifest discrepancy reports, follow-up actions. (December 31, 1980; March 31, June 30, September 30, 1981)			0	0
2. Revised manifest form compatible with federal and authorized State requirements (in December 31, 1980 quarterly report)			0	
III. PERMIT SYSTEM	14			
A. Conduct permit program				
1. Provide assistance to applicants		X	X	X
2. Receive and review EPA "Part A" applications for completeness utilizing criteria developed by EPA		X	X	X

	WORK-YEARS REQUIRED	PERIOD ONE	PERIOD TWO	PERIOD THREE
3. Request information associated with Part B of RCRA application and review responses			X	
4. Conduct extensive technical reviews of permit applications		X	X	X
5. Conduct site evaluation		X	X	X
6. Analyze air, water, or soil samples as necessary		X	X	X
7. Issue draft permit, fact sheet or statement of basis		X	X	X
8. Provide mechanism for and execute "due process" activities, including public participation		X	X	X
9. Process and issue final permits				X
10. Modify permits as appropriate				X
11. Conduct further proceedings as necessary				X
B. Assess magnitude of permit program and develop permit priorities				
1. Develop list of facilities needing permits based on EPA notification/Part A data and other available information			X	
C. Develop list of major facilities from EPA facility notification list			X	

	WORK-YEARS REQUIRED	PERIOD ONE	PERIOD TWO	PERIOD THREE
1. Establish criteria for major ranking		X		
OUTPUTS:				
1. Criteria for establishing major facilities list (by December 15, 1980)			0	
2. List of major facilities (by April 15, 1981)				0
3. Summary of permit activities including lists of permits issued to major facilities, draft permits issued for major facilities, permits issued to non-major facilities, draft permits issued for non-major facilities (December 31, 1980; March 31, June 30, September 30, 1981)		0	0	0
IV. COMPLIANCE/ENFORCEMENT	24.5			
A. Conduct compliance monitoring and enforcement activities				
1. Perform compliance evaluation inspections (with sampling as appropriate) of major generators, transporters and facilities in accordance with EPA inspection checklists or approved State program procedures		X	X	X
2. Prepare EPA checklist report on each inspection		X	X	
3. Provide witness and evidence obtained during compliance inspections for EPA enforcement action as necessary			X	

	WORK-YEARS REQUIRED	PERIOD ONE	PERIOD TWO	PERIOD THREE
4. Continue to perform State Hazardous Waste Program Compliance/Enforcement activities required for the enforcement of New Jersey's hazardous waste laws				
a) Issue notices of warning		X	X	X
b) Issue notices of violation		X	X	X
c) Issue compliance orders		X	X	X
d) Follow-up affirmative inspections		X	X	X
e) Prepare cases as necessary		X	X	X
B. Assess status of compliance				
1. Develop list of major generators from EPA generator notification data and other appropriate sources				
a) Establish criteria for major ranking		X	X	
b) Develop list of major generators in accordance with established criteria			X	
2. Generator and facility annual reports				
a) Review reports			X	X
b) Follow-up to assure completeness and accuracy			X	X
c) Identify violators			X	X

	WORK-YEARS REQUIRED	PERIOD ONE	PERIOD TWO	PERIOD THREE
d) Issue notices of warning		X	X	X
e) Issue compliance orders		X	X	X
OUTPUTS:				
1. Criteria for establishing major generators list (by December 15, 1980)			0	
2. Listing of major generators (by February 15, 1981)			0	
3. Generator compliance evaluation inspections*			0	0
4. Transporter compliance evaluation inspections*			0	0
5. Facility compliance evaluation inspections*			0	0

*See chart regarding numbers of each type inspection per quarter.

COMPLIANCE INSPECTION SCHEDULE

Type of inspection	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total
Generator	15	45	50	60	170
Transporter	5	15	25	30	75
Facility (non-sampling)	25	60	75	90	250
Facility (with sampling)		5	10	15	30

NOTES:

1. Prior to the effective date of federal regulations and during the cooperative arrangement (Periods One and Two), the EPA inspection checklists will be used for these compliance evaluations.

2. For each inspection conducted during the cooperative arrangement period, DEP will submit the completed EPA inspection form to:

   Dr. Richard Baker
   EPA Region II
   26 Federal Plaza
   New York, N.Y. 10007

   These forms will be submitted within 30 days of the date on which the inspection is conducted.

3. Where the State is refused entry to a facility and such refusal appears to be based on the State's absence of authority to inspect for EPA's interim status standards then DEP will notify EPA immediately by telephone and in writing within five (5) days.

Task I: Development and Adoption of State Plan

Task Elements:

a) Summary of Progress and Completion of State Plan

In accordance with the Solid Waste Management Act (P.L. 1975, C-326) each of the State's 21 Counties and the Hackensack Meadowlands District (HMDC) have been designated Solid Waste Management Districts and required under supervision of the DEP to develop a plan which would provide for the solid waste management needs of each of their municipalities for a period of ten years. The State of New Jersey was divided into three Groups, with each group given a specific schedule for plan development and adoption. (Group I includes Bergen, Essex, Hudson, Passaic and Union Counties and the HMDC. Group II includes Burlington, Camden, Gloucester, Mercer, Middlesex, Monmouth, Ocean and Somerset Counties. Group III includes Atlantic, Cape May, Cumberland, Hunterdon, Morris, Salem, Sussex and Warren Counties). Following completion of the plan by the district Solid Waste Advisory Council and adoption of the plan by the respective Board of Chosen Freeholders or the Commission in the case of the HMDC, district plans were required to be submitted to the DEP for review.

Presently, every district in New Jersey has submitted an adopted plan with the exception of Warren County which was given an extension due to unforseen delays. According to C-326 the DEP had 150 days from the date of plan submission to either Certify approval, rejection or require modification of the district plan. To date, all Group I and II districts have received "Certification of Modifications" which required the districts to modify their plans by July 1, 1980. With the exception of Sussex and Warren Counties, all other Group III district also recieved "certifications of modifications" which required those districts to submit modifications by December 31, 1980. Once modifications (plans) have been resubmitted to the DEP for review by the districts, the DEP has only 30 days to certify approval or rejection of the plan modifications. As of July 1980, all Group I and II districts with the exception of Bergen County had submitted their plan modifications. (If Bergen County, or any Group III district fails to submit the required modification, the DEP will adopt & promulgate modifications for the County on a schedule consistant with that Group schedule). Following review of the revised plans (modifications), the DEP issued "Certifications of Approval with Modifications" to all Group I and II districts. These certifications require the districts to begin the implementation of district solid waste management plans as approved by the Commissioner of DEP and completes that part of the State Plan comprising those districts. Additionally, the DEP has prepared draft Statewide guidelines for continued district planning and implementation. Those guidelines will be distributed to the district and also become part of the adopted Statewide Solid Waste Management Plan for New Jersey. It is anticipated that all Group III districts will be issued similar "certifications of approval with modification" after December 31, 1980.

A draft statewide solid waste management plan for the Group I and II districts will be finalized and submitted to the USEPA in the fall of 1980. Included in this statewide plan is the methodology for integrating district plans based on work completed by Rutgers Unicersity. To date, Rutgers has reviewed and commented on each of the Group I and II district plans. Similarly, the State Plan will address all requirements of 40 CFR 256 and identified in Task II of NJDEP FY'80 grant.

Prior to submission of the draft plan, regional public hearings will be held in appropriate locations throughout the State to provide necessary input from industry, elected officials, citizens and environmentalists. The schedule for completion of the Group III portion of the Statewide Plan will comply with the USEPA deadline of 1/31/81.

b) Attorney Generals Opinion

Request will be made to the Attorney General for an opinion to ascertain whether the State has adequate legal authority to prohibit the establishment of new open dumps (in accordance with 40 CFR 256.20 and related preamble). This opinion will be incorporated into the State Plan.

c) Implementation of State Plan

Following development and adoption of the State Plan, significant effort will be expended during FY'81 on implementation of the various components of the State Plan. These include source separation/recycling programs, rate averaging disposal costs at regional facilities, waste stream control (including out-of-state waste flows) and securement of markets, sites, design and financing necessary for resource recovery development. As a condition of district plan approval, the State will monitor facility development through quarterly progress reports perpared by the districts. The reports will be made available to the EPA if requested.

Task II: Facility Planning

Task Elements:

a) State Policy on Solid and Hazardous Waste Facilities

The State of New Jersey recognizes that increasing generation rates, decreasing disposal capacity and environmental problems associated with existing solid and hazardous waste disposal facilities in the State will require the development of new and upgraded facilities. Accordingly, it is the policy of the State to encourage, locate and develop environmentally sound solid and hazardous waste management facilities including disposal, resource recovery and co-processing facilities to meet this pressing need. While it is the policy of the State to address the long term solid waste disposal need through the development of high technology resource recovery facilities, it is recongnized that environmentally sound landfills will continue to be required to provide additional disposal capacity during the interim period prior to resource recovery and also for disposal of resource residuals and non-processable waste subsequent to the implementation of resource recovery systems.

Similarly, with regard to hazardous wastes, it is the policy of the State to develop a comprehensive strategy for hazardous wastes management consisting of adequate facilities and strong regulatory and enforcement requirements. A more detailed description of this management process as it relates to facility development can be found in the following section.

b) Status of FY'80 Solid and Hazardous Waste Facility Planning

The State has proceeded to implement its solid waste management policy through enactment of the Solid Waste Management Act (P.L. 1975, c-326) which provides for the development and implementation of the approved statewide solid waste management plan. Presently, each of the state approved district solid waste plans contains strategies for solid waste disposal including additional sanitary landfills for the short term disposal prior to 1985, expansion of existing recycling/source separation waste reduction programs, and development of resource recovery facilities in the long term or after 1985. Statewide, the approved district plans provide for twenty resource recovery facilities (including Mass Burning, RDF, modular and co-disposal) which will process upwords of 20,000 tons per day. The DEP will monitor the progress of these facilities via quarterly status reports and meetings, and based on schedules contained in the approved district plans.

With regard to hazardous waste facility accomplishements during FY'80, the Delaware Reiver Basin Commission (DRBC) and the State of New Jersey contracted for and completed a study to determine the specific need and preliminary siting of hazardous waste treatment facilities throughout the DRBC region including the State of New Jersey. The study includes an assessment of available recovery and disposal technology, the development of siting criteria, identification of siting constraints and general locations, estimations of facility engineering design and cost estimates and investigation of options for institutional arrangements.

c) Solid and Hazardous Waste Facility Siting and Implementation Objectives, For FY'81

The State FY'81 solid and hazardous waste facility siting and implementation program will be a priority activity during the coming year due to the critical need for such facilities. The objectives of the State program for solid and hazardous waste facilities will include:

1. identification of public/private roles in siting
2. assessments of available facility capacity
3. identification of environmentally suitable and unsuitable areas.
4. development of procedures and criteria for future siting decisions.
5. pursuit of needed State laws and regulations.
6. monitoring of progress districts are making in developing appropriate facilities (solid waste only)
7. Technical assistance to districts for resource recovery (solid waste only)
8. Promotion of Resource Recovery Bond Issue (solid waste only)
9. Report on DRBC Studies & Findings (Hazardous waste only).

A complete description of the State FY'81 hazardous waste facility siting and implementation program can be found in the following attached documents:

- Hazardous Waste Management Capacity Development in the Delaware River Basin and New Jersey; A program Strategy, April 8, 1980.
- Technical Criteria For Identification and Screening of Sites for

Hazardous Waste Facilities, Level I and II Criteria March 19, 1980 and Level III Criteria May 27, 1980.

Task III: Developing Alternative State Funding

Task Elements:

a) State's Strategy

In an effort to provide alternative funding sources for the State program, the SWA has evaluated the feasibility of various funding approaches including increased user fees and state appropriations.

b) Status of States FY'80 Funding Sources

To date, the State has supported SWA's planning activities through the provision of $1.3 million for district solid waste management plan development as well as additional appropriations of $250,000 for FY'80 and $710 for FY'81 for resource recovery implmentation activities. Appropriations of $1 million has been requested for FY'82 for similar planning activities. Further, the DEP/SWA was successful in securing approval for the placement of a $50 million resource recovery capital construction grant bond issue on the November 1980 ballot. The establishment of increased user fees for registration of collector/haulers and facilities in the State was determined to be inappropriate at this time, but will be re-evaluated in the future.

Although user fees are not presently earmarked for the State Solid Waste Program, collection of such fees influences decisions by the legislature to appropriate additional monies to Administration for continuation of their programs.

c) Alternate Approach For FY'81

During FY'81 the State will continue to seek alternative approaches to secure funds to compensate for the phase out of Federal funding in FY'84. Primarily, the State will continue to lobby for increased State appropriations as well as modify and endorse legislation to increase user fees that are specifically earmarked for the State's solid waste program.

Task IV: Public Participation

Task Elements

a) Development and Implementation of State Plan

Regional Public hearings will be scheduled for input to the draft Statewide Solid Waste Management Plan. Initial hearings for the Group I and II Districts will be scheduled for the fall of 1980 while hearings for the Group III district portion of the plan will be held later in the year. Staff of the SWA also provides assistance to the New Jersey Council on Solid Waste Management which will continue to monitor State Solid Waste activities including development of the

State Plan and hold additional public hearings in this regard. Additionally, the SWA will continue to provide technical assistance to districts (officials, industry and citizens), attend District Solid Waste Advisory Council meetings (22 districts hold monthly meetings), develop a program to inform the public of the resource recovery bond issue (including posters and audio/visual materials), and provide any other assistance necessary to promote needed solid waste management facilities and programs throughout New Jersey. (See appendix for description of Subtitle C and D public participation programs)

Task Out Puts

Outputs from Tasks I through IV will be addressed in quarterly reports to be submitted to EPA II. The major output will be the Statewide Solid Waste Management Plan. (See RCRA Solid Waste Planning Program, Schedule For FY'81 Activities, pg. 10).

RCRA SOLID WASTE PLANNING PROGRAM

SCHEDULE FOR FY'81 ACTIVITIES

TASKS	O	N	D	J	F	M	A	M	J	J	A	S				
I. State Plan																
- Submission of Draft State Plan																
- Submission of Final State Plan																
- Implementation (Quarterly Updates)																
II. Facility Planning & Implementation																
- Public & Private Roles (Final Report)																
- Facility Capacity (Final Report)																
- Suitable Areas (Final Report)																
- Siting Criteria (Final Report)																
- Laws & Regulations (Quarterly Update and Final Report)																
III. Alternative State Funding																
- State Appropriations (Quarterly updates and Final Report)																
IV. Public Participation																
- State Plan Development (Final Report)																
- State Plan Implementation (Quarterly Update)																
- Facility Planning (Quarterly updates)																
V. Reporting FY'81/Work Plan (Quarterly Reports)			*			*			*				*			
VI. Work Plan FY'82 (Draft Plan)																

*Quarterly Reports

SOLID WASTE INVENTORY PROGRAM

The Solid Waste Administration is currently conducting an Inventory of Open Dumps as required by the Resource Conservation and Recovery Act of 1976. The inventory is an on going project which will continue through 1984. The goal of the Open Dump Inventory is to identify those facilities that pose a threat to health or the environment so that they may be upgraded to meet federal and state standards or be closed. Land disposal facilities will be judged according to criteria set forth by the U.S. Environmental Protection Agency, and sampling and anlyses practices will be carried out in such a way as to follow state quality assurance procedures.

During FY'81 the Inventory will progress through the following five steps: development of a priority list of facilities to be inventoried and a schedule for completing the necessary work, classification of facilities, notification of operators of facility status and granting them an opportunity to make comment in accordance with administrative procedures, submitting classification reporting forms to EPA, and development of compliance schedules to upgrade facilities.

As noted on the attached, amended Table VI - "Regulatory Powers - Projections", we expect that New Jersey's regulatory powers will be in effect for all criteria except Food Chain Crops. Regulations concerning land application of wastes and food chain crops have recently been drafted.

New Jersey Pollution Discharge Elimination System (NJPDES) regulations have been adopted and are expected to be in effect by January, 1981. Along with these NJPDES regulations this Administration is proposing to re-certify existing facilities to ensure upgrading to meet strict environmental standards for all disposal sites expected to remain open. New Jersey's Solid Waste Management Act (P.L. 1975 C.326 C13:1E-6) gives the Department the authority to formulate, promulgate and enforce rules and regulations concerning solid waste disposal activities.

Inventory of Land Disposal Facilities (100% Federal Funds)

A. Work Tasks and Outputs

Task I: Determine Land Disposal Facility Classification Schedule

Task Elements:

The classification schedules for facilities to be inventoried this year will be developed according to the following steps:

a. Development of the priority list based on the following factors:

1. potential health and environmental impact of the facility
2. past record of environmental problems
3. location of facility in environmentally sensitive areas
4. projected life of facility

b. Development of activity schedule based on:

1. availability of federal and state resources necessary to classify facilities
2. collection of site characteristic data (ground and surface water, floodplains) from geologic maps, engineering plans, and site visits and site performance data (operating procedures) from inspection and monitoring reports and onsite visits.

Output from Task I:

The output from this task will result in the formation of the FY '81 priority list and the schedule for completing all necessary work. During FY '81 approximately 40-50 land disposal facilities will be inventoried. Quarterly reports will identify scheduling progress.

Task II: Determine Classification

Task Element:

Utilizing the EPA Guidance Manual for the Classification of Solid Waste Disposal Facilities and sampling methods that follow state quality issuance procedures, site evaluations will be carried out for each facility on the priority list.

Output from Task II:

Quarterly updates will list the sites inventoried and identify deficiencies which cause them to be classified as open dumps.

Task III: Notify Owner/Operator of Facility Classification

Task Elements:

The New Jersey Department of Environmental Protection will:

a. notify the owner/operator of the facility classification

b. provide owner/operator with a summary of the evidence upon which the classification was based

c. provide an opportunity for owner/operator to comment in accordance with standard administrative procedures

Output from Task III:

Owner/operators will be notified as to the classification of their facilities, provided with a summary of evidence to support classification and provided with the opportunity to comment on classification. Progress on notification will be highlighted in quarterly reports which will also list newly classified facilities taking legal action against DEP and highlight progress on cases pending from the 1980 inventory.

Task IV: Forms Submitted to EPA for Publication in Open Dump Inventory

Task Element:

Inventory reporting forms for those facilities classified during FY '81 will be sent to the Bureau of the Census on or before September 30, 1981. Facilities which fail to meet one or more of the RCRA criteria will be listed in the Federal Register published during January, 1982.

Output from Task IV:

Submission of reporting forms for inventoried facilities to Bureau of the Census by September 30, 1981. Copies of forms will also be sent to EPA Region II.

Task V: Development of Remedial Measures to Upgrade Open Dumps

Task Elements:

a. review deficiencies with owner/operators of facilities listed as Open Dumps

b. determine if facility should be upgraded or closed

c. develop compliance schedule for remedial measures

Output from Task V:

Quarterly updates will focus on progress being made on the state recertification program and individual compliance schedules. This will enable long range solid waste management planning and provide a legal basis for closing Open Dumps.

RCRA Solid Waste Inventory Program Schedule of FY '81 Activities

	O	N	D	J	F	M	A	M	J	J	A	S
I Determine Land Disposal Facility Classification Schedule												
II Classify Facilities												
III Notify owner/operator of Facility Classification												
IV Submit Reporting Forms to Bureau of Census and EPA												
V Develop Remedial Measures to Upgrade Open Dumps												