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# Water Strategy Paper Statement Of Policy



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

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OFFICE OF THE  
ADMINISTRATOR

TO: All Water Quality Officials

RESEARCH AND  
EPA, REGION V

The enactment of the Federal Water Pollution Control Act Amendments of 1972 has imposed on the Environmental Protection Agency, on the States, and on local communities many and important responsibilities. These requirements provide the opportunity to clean up the waters of the United States using various resources, both financial and administrative. The application and timing of these resources have been developed into the enclosed water strategy. This strategy is to provide EPA and the States with a presentation of national objectives and relative areas of emphasis.

The document is part of a management system conceived to implement the water legislation. It should guide EPA Headquarters, EPA Regional Offices, and the States in setting annual objectives, allocating resources in support of these objectives, and regularly reporting on their achievement. It is meant to ensure that the many activities conducted under the 1972 Amendments, by conforming to a cohesive strategy, will complement each other. As a public statement of EPA's intentions for a decade of water pollution control, it will also serve as a means of encouraging public comment and public participation. It will be revised annually to reflect the changing circumstances of the national abatement program.

The strategy focuses on areas of Federal-State program activity and does not encompass all activities (such as research) to be performed under the Act. Efforts have been initiated to extend the strategy to cover these areas

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with an anticipated completion in several months. However, it is important at this time that we disseminate the present strategy so that Federal and State officials can begin implementing many of the operational aspects of the program.

I wish to emphasize the important role which it is envisaged that States will play in carrying out the legislation. This role is wholly appropriate, not only because of the magnitude of the pollution control efforts we must undertake, but also we must recognize the special and localized nature of many water pollution problems. Within the limits of our resources, the Environmental Protection Agency will assist the States in developing their programs to carry out this water strategy.

Sincerely yours,

A handwritten signature in dark ink, reading "William D. Ruckelshaus". The signature is written in a cursive, flowing style with a prominent initial 'W'.

William D. Ruckelshaus  
Administrator

April 30, 1973

## PREFACE

This April 30, 1973 edition of the Water Strategy has been prepared for use and review by Federal, State, and local government officials and for the information of the public. Several changes to the previous February 27 edition have been made. Pages on which changes were made are indicated by a date and the changes are indicated in italics. This edition has also been expanded to include a memorandum from the Acting Administrator enunciating his views on the Strategy, and to incorporate the Administrator's Decision Memorandum on permit processing priorities.

On the use of the Strategy, it is emphasized that the Strategy, while based on the law, is not the law, nor is it a regulation mandated by the law. It is guidance prepared for use by Government agencies in implementing the Act.

The Strategy should be viewed as a dynamic document, and it is intended that it be responsive to situations and conditions that develop as the Act is implemented. This edition of the Strategy has not incorporated several areas of suggested changes, but it is expected that these changes and any modifications that are subsequently required will be incorporated in a revised Water Strategy document that will be completed this summer. However, it is intended that while introducing these revisions, the basic philosophy and framework of the Strategy will be continued. This revised document will also extend the scope of the Strategy into other areas of the Act.

Comments on the Strategy are welcomed. They should be addressed to:

Water Program Planning and Accomplishment Branch  
Environmental Protection Agency  
Room E-813, Waterside Mall  
401 M Street, S.W.  
Washington, D.C. 20460



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF THE  
ADMINISTRATOR

MEMO TO: Assistant Administrators  
Regional Administrators  
Deputy Assistant Administrators  
Office Directors

FROM: Robert W. Fri

A handwritten signature in black ink, appearing to read "Robert W. Fri", is written over the printed name.

SUBJECT: Water Program Policy Issues

The Water Strategy Paper has been an extraordinary tool in determining how to implement the unusually complex provision of PL 92-500. It has been a vehicle for resolving the sometimes conflicting points of view--within both the law and our own Agency--between the planners and the permittees. It has been an experiment, perhaps the first of its kind, in explaining publically before the fact how an agency will implement a new program.

The Water Strategy Paper does not, however, appear to state without ambiguity the policy forged from this debate. Some questions have been raised both in my regional visits and in recent hearings in the Senate. To resolve these questions is the purpose of this memorandum.

Priorities for Issuing Permits

There has been some confusion over our priorities for issuing permits. The Administrator's Decision Statement of January 30, 1973, governs our policy on this subject. In cases of conflict, this ADS wins.

Water Quality Standards vs. Best Practicable Technology

There are, to me, remarkably deep and unproductive disputes between Water Quality Standards and Best Practicable Technology as a basis for issuing permits. The law is quite clear on this issue:

1. All permits must issue by December 31, 1974, or applicants will be in violation of the law.
2. Permits will be issued on a BPT basis, or, if more stringent controls are needed to protect water quality, on a WQS basis.
3. By incorporating the BPT philosophy, the law substantially reduced our reliance on WQS as a basis for setting effluent limitations.

The thrust of these points is, first, that many--even most--permits will be based on BPT; WQS will just not be an issue in these cases. Second, even if WQS should be the basis for a permit, the permit will issue on a BPT basis anyway if the water quality analysis cannot be completed in time to meet the December 31, 1974 deadline. To do otherwise would put a permittee in violation of the law because of our inability to complete our analyses.

Thus, it is the policy of the Agency to issue permits by December 31, 1974, and to issue BPT-based permits in lieu of WQS-based permits if necessary to meet that deadline.

However, it is also our policy to write permits right the first time. It would not be responsible to issue a BPT-based permit in lieu of a WQS-based permit without even trying to develop effluent limitations to protect water quality. So we should, and will, try.

The problem, then, is not a philosophical one, but a pragmatic one. It is how to order our work to maximize the opportunity to do the job right the first time.

Thus, our priorities, reflected in the ADS and the Water Strategy, is to work first on permits where we already have WQS-based load allocations or where we know we will write BPT-based permits. This gives us some time to develop load allocations on the water quality standards-limited segments where more work is required. I believe we have enough work in the pipeline to give us breathing room to complete load allocations where we need them.

But, the load allocation game will be over by mid-CY 1974. If a permit cannot be written by December 31, 1974, with water quality standards-based allocations (where that is required), it will be

written on a best practicable technology basis. If we reach the question of getting a polluter on an abatement schedule in CY 1974 versus developing a load allocation, the schedule wins.

In short, we have arranged the system to provide time to develop load allocations where we need them. But we run out of time for this function by mid-1974--and perhaps sooner if the pace of issuing permits would be delayed by waiting for load allocations. In these cases, we will meet the deadline by issuing BPT-based permits in lieu of WQS-based permits.

#### Content of 303(e) Plans

The main purpose of the water quality analysis in the 303(e) plans between now and December 31, 1974, is to help us develop the load allocations, if needed, to write permits to achieve water quality the first time.

The primary issue these plans must address, therefore, is the load allocation question. And the plans must produce load allocations, if they are to be useful, soon enough to not delay the issuance of permits.

In this context, the content of initial 303(e) plans is reasonably clear.

1. The plan must contain a list of dischargers, target attainment dates, and target load allocations. In fact, that is all it need contain in order to write permits.
2. The method of deriving load allocations need only meet the test being defensible in a public hearing. Elaborate methodology is not needed, and is even undesirable in the interest of time. It's the result, not the method, that counts.
3. Documentation is useful to the extent needed to meet the test of reasonableness in a public hearing. More than that is counterproductive.

4. Once a reasonable load allocation is produced, call it a 303(e) plan and stop. This means that if we already have a load allocation (say, from the PBAP exercise), or if one is worked out through enforcement means (as in the Houston Ship Channel), further planning is not required. (There are other parts to a 303(e) plan, like non-point source control. They should not stand in the way of the primary purpose and, for plans submitted in CY 1973 or CY 1974, can be included only nominally.)
5. The "management plans" should be regarded simply as discharge inventories on a basin that systematically ensure each discharger is permitted and that tie together certain other program priorities in a consistent way.

After December 31, 1974, further elaboration of basin plans may be needed--to determine non-point source controls, for example. But before that date, the purpose of planning is to produce permits, ones that are likely to protect water quality with adequate margins of safety for lack of knowledge. You will note the schedule for plan development in the Water Strategy is consistent with this goal.

#### Priorities for Planning and Priorities for Action

The 303(e) planning process (as opposed to the 303(e) plans) produces two sets of priorities. One is a set of priorities for doing 303(e) basin plans. The other is a set of priorities that guide our action programs for issuing grants and permits. The annual action programs themselves are documented in our internal annual planning system and, for States, through the 106 program.

There has been some confusion over these two sets of priorities.

The action priorities derive from the State's problem assessment and the Administrator's January 30 Decision Statement. Thus, we would expect to see early action in basins (or for classes of dischargers) where the pollution control problems are most severe and where, in the case of permits, we have some basis for issuing permits. Basins requiring load allocations may be deferred until the load allocation can be calculated, consistent with the policy discussed above.



Planning priorities, on the other hand, depend on where planning is needed. Early planning effort needs to be placed where we need, but don't have, load allocations. Thus, it is entirely possible that planning priorities and action priorities will be different. Since action programs and 303(e) basin planning programs are distinct, if complementary, functions, these differences are only natural.

#### Revisions to Water Quality Standards

The Water Quality Standards revision we undertook has limited objectives.

1. Eliminate inconsistent use designations and criteria on opposite shores of interstate waters.
2. Upgrade use designations which were set too low for no plausible reason.
3. Upgrade criteria that depart from the Green Book for no good reason.
4. Set water quality standards for intrastate waters.

In other words, we want to conclude the water quality standards process begun in 1967, not begin the upgrading process leading to 1983 water quality standards. We elected to do so because the law provides us the tools to wrap up the standards more decisively than ever before.

Some care must be taken in keeping this revision process limited to our relatively narrow objective. Extended delays will only result in our inability to write WQS-based permits by December 31, 1974.

#### Permitting in States Lacking 402 Authority

Federally-sanctioned permits must issue by December 31, 1974. In most States, this means we must process permits beginning now. But many States will lack 402 authority for some months--some well into 1974.

It is our policy to process and issue permits under our own authority where required to meet the deadline. However, it is also our policy to:

1. Involve the States up to the point of issuance to the maximum extent. In some States that have everything but the requisite legal authority, the permit may be completely processed by the State as if they had approval of their program. The permit would issue under Federal authority, however.
2. Extend ourselves to protect the integrity of State programs. We may issue identical Federal and State permits or, if possible, joint permits. Where it would not produce unreasonable delays, we might even hold up issuance of fully processed permits so the State can get final program approval and issue the permits itself.

#### PBAP/PBAR and the 303(e) Process

Substantial confusion exists respecting the relation between Priority Basin Accomplishment Planning and Reporting (PBAP/PBAR) and the 303(e) process. Perhaps it is best sorted out by distinguishing between the planning and reporting system and the priority basins on which EPA wants plans and reports.

The systems are, or will be, identical. In either case, a plan should contain: (1) load allocations to meet water quality standards, if that is required; (2) target load reductions, whether derived from water quality standards or best practicable technology\*; (3) a discharger inventory; and (4) a set of target dates both for obtaining abatement commitments and for achieving target load reductions. Reports in either system would assess progress against such a plan.

In order to ensure we do what is required of us, plans and reports such as these are required as part of the 303(e)/106 process for all waters where we have an abatement effort.

However, certain basins are of priority importance to EPA because they involve pollution control problems affecting large numbers of people or critical bodies of water. These basins are

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\*If derived from best practicable technology, the target load reduction is not preplanned. It is just the sum of the permit requirements for the basin.

described in the Water Strategy. Taken together, they represent the national priorities that we want to accommodate in a largely State-run program.

This assertion of national priorities has two impacts. First, it means Regions must work with States to harmonize national and State priorities; the 303(e) planning process is the vehicle for this. Second, it means EPA needs plans and reports on these basins to assess progress against our national goals.

Thus, it follows that:

1. Ideally, States would agree with our national priorities and prepare 303(e) plans for our priority basins. In some cases, they may elect to adopt the load reductions and target dates we have already established in the Priority Basin Accomplishment Plans (PBAP's); it would save a lot of work if they did. Their reports of progress on these basins would be forwarded to EPA headquarters through the Priority Basin Accomplishment Reports (PBAR) as a basis for our internal assessment of accomplishment of national priorities.
2. Alternatively, if a State does not adopt a national priority as their own, the Region will prepare a PBAP and submit its own reports through PBAR. This is not a desirable solution, but is a necessity if we are to monitor progress against national priorities.

In summary, the systems are the same in terms of plan and report content. PBAP/PBAR remains as an expression of national priorities, and as a process for reporting progress against those priorities. Hopefully, the States will adopt our priorities and, in so doing, automatically become responsible for preparing the Priority Basin plans and reports. If not, we will do it ourselves.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

January 30, 1973

THE ADMINISTRATOR

ADMINISTRATOR'S DECISION STATEMENT NO. 3

SUBJECT: PERMIT PROGRAM AND 303(e) PLANNING

The purpose of this decision statement is to record certain decisions made concerning the Permit Program and the 303(e) Planning Program and to assign certain tasks necessary to implement those decisions.

I. Permits

During the first year of the new water bill, the following will be EPA's policy on the issuance of permits:

1. Permits will be issued to dischargers in basins where water quality standards will dictate permit conditions (i.e., where receiving water quality will require more stringent abatement conditions than the best practicable control technology currently available standard) and where sufficient water quality data are available to indicate the degree of abatement necessary to achieve water quality standards. These permits should be written for a term of up to five years and should not be subject to revocation during the period of the permit, except as provided in Section 402(b)(1)(C). Legal action should be initiated where a discharger refuses to accept such a permit or fails to comply with the permit conditions.

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2. Permits will be issued to dischargers who are 1) located in basins where water quality standards do not govern permit conditions, and 2) such dischargers are within industrial categories for which effluent guidelines for best practicable control technology currently available have been promulgated prior to the twelve month statutory deadline. These permits should be written for a term of up to five years and should not be subject to revocation during the period of the permit, except as provided in Section 402(b)(1)(C). Legal action should be initiated where a discharger refuses to accept such a permit or fails to comply with the permit conditions.

3. Permits may be issued if: 1) dischargers are located in basins where water quality standards do not govern permit conditions, and 2) such dischargers are within industrial categories for which interim effluent guidance for best practicable control technology currently available has been developed and is sufficiently thorough to give a high degree of confidence that permits can be written that will not be materially inconsistent with effluent guidelines subsequently issued. Permits also may be issued to dischargers in such basins if such dischargers fall outside of the defined industrial categories for which EPA is planning to issue effluent guidelines, since individual determinations of best practicable control technology currently available must be made in such cases. Guidance will be furnished to the regions on which industrial categories fall within these classifications. These permits should be written for a term of up to five years and should not be subject to revocation during the period of the permit, except as provided in Section 402(b)(1)(C). Such permits once issued will be enforceable and will remain in effect without change notwithstanding the possibility that effluent guidelines subsequently issued might be more or less stringent in certain respects.

#### Discussion:

The purpose of these decisions on permit issuance is to get dischargers started as fast as possible on pollution abatement programs while at the same time minimizing the possibilities for establishing inappropriate requirements or constructing "moving targets" for abatement requirements. In situations #1 and #2, EPA will be issuing permits where formally established standards exist. In situation #3 permits will be

based on guidance in which a high degree of confidence exists, but contain some risk of being more or less stringent than effluent guidelines to be promulgated.

It is my belief that during the first year of operation under the amended Act, the number of permits issued under this policy will equal the EPA and State capacity physically to process permits. Notwithstanding, care must be taken to moderate any risk entailed in issuing permits under situation #3, above. For example:

1. Permits should not normally issue to dischargers in water quality limited basins where water quality data do not exist to formulate permit conditions. There may be cases where permits can issue under these circumstances with little or no risk of having to revise the permit shortly after it issues; for example, an exception could be made for a discharger whose primary constituents are not those for which the basin is water quality limited. The planning process should be scheduled to provide local allocations for water quality limited basins in time to issue permits (after covering situations #1, #2, and #3, above) without delaying permit activities unduly. If delays occur, this policy will be reconsidered.
2. It will generally be wiser to prefer actions in situations #1 and #2 if a permit issued under situation #3 would require inordinate analysis to work out permit conditions. Subsequent promulgation of effluent guidelines will provide the analytic basis necessary in most cases, and thereby conserve regional resources.

## II. Planning

Full 303(e) water quality plans will be required only for those basins where water quality standards will dictate permit conditions. These plans will determine the gross effluent reduction required to meet water quality standards. Allocations of reductions to individual dischargers must be made as a part of the permit issuing process at the outset of operating the program, but the question of whether this should be done in the permit issuing process or as part of the 303(e)

process on a permanent basis has not yet been resolved. In basins where water quality standards are not governing, only the management portions of the 303(e) plans will be required.

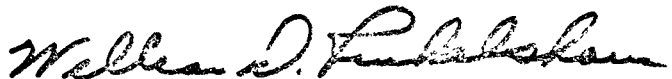
### III. Work Assignment

1. Effluent Guidelines: By January 24 the Assistant Administrator for Air and Water Programs and the Assistant Administrator for Enforcement and General Counsel will submit to the Administrator a list of a) those industries for which we have adequate information to begin full promulgation of effluent guidelines based on best practicable control technology currently available, and b) those industries for which we have effluent guidance adequate for interim use in the issuance of permits. They shall attempt to agree on the list, but shall provide dissenting reports rather than miss the deadline trying to get agreement.

2. Basin Classification: Each state, with the concurrence of the Regional Administrator, shall identify those basins or rivers segments where 1) water quality standards will govern permit conditions and adequate data are available, 2) water quality standards will govern permit conditions and adequate data are not available, and 3) water quality standards will not govern permit conditions and best practicable control technology can consequently be used. This classification should be based on technical judgment and whatever limited analysis can be done in the time available and submitted as part of the continuing planning process according to the deadline therein established (current expected deadline February 18). Considering the use of this classification in the permit issuance process described above, a reasonable degree of conservatism should be used in deciding whether or not a basin is water quality standard limited. When there is significant doubt, it should be classified as water quality standards limited. The consequences of a mistake classifying a basin as water quality standards limited when it is not are less costly both environmentally and economically than the opposite mistake. However, this principle should not be carried to excess because that will run the risk of imposing planning and monitoring requirements in excess of the available resources and of delaying the start of the abatement program.

Each Regional Administrator, in cooperation with the states, shall also estimate the number of major and minor permits which will be issued in his region during CY 1973 under the strategy herein set forth. The estimates will show the number of permits by basin in the case of those in water quality standards limited basins and by industry in the case of those in technology limited basins.

As a practical matter it will be difficult to do much of this required analysis until the list of industries where we expect to have BPT guidance is available (after January 24), we have explained our strategy to the states, (meeting is currently scheduled for January 18) and until we obtain the lists of the basins or river segments in the various classification from the states. Therefore the Regional Administrator should provide required basin lists and permit estimates to the Assistant Administrator for Air and Water Programs one week after the deadline for receipt of the basin information from the states. After appropriate consultation with the Assistant Administrator for Enforcement and General Counsel the Assistant Administrator for Air and Water Programs should submit the results together with any recommendation for changes to the Administrator.

A handwritten signature in dark ink, reading "William D. Ruckelshaus". The signature is fluid and cursive, with the first name "William" and last name "Ruckelshaus" clearly legible.

William D. Ruckelshaus  
Administrator



## WATER STRATEGY

### I. PURPOSE

The water strategy paper is designed to play an important part in implementing the 1972 FWPCA Amendments. As the management system for that implementation is conceived, the strategy paper will provide guidance to EPA Headquarters and Regions and to the States. On its basis these authorities will set annual objectives, allocate resources in support of these objectives, and regularly report on their achievement. The paper will ensure that regulations issued under the 1972 Amendments, by conforming to a single strategy, are consistent with each other. As a public statement of EPA's intentions for a decade of water pollution control, it will also serve as a means of encouraging public comment and public participation. Each year it will be revised to accommodate new realities and to refocus the national program in light of legislative deadlines and the expanding role of the States in pollution control activities.

This water strategy paper provides an outline of the Federal-State partnership for 1973.

### II. INTRODUCTION

The FWPCA Amendments concentrate on the control of point source pollution to achieve national water quality. The principal means of this control is a universal, base level of effluent limitations derived from currently available control technology. This may be supplemented by a higher level of effluent limitations dictated by water quality requirements. The combination of these instruments provides the Administrator with flexibility in meeting the environmental objectives of the Law. By outlining the circumstances under which each level of treatment is appropriate, this paper develops a strategy for using limited resources to provide maximum impact on water quality. The strategy is elaborated in the following sections:

- III. The Water Problem
- IV. Strategic Objectives
- V. Sequence of Implementation
- VI. Strategic Guidance and Approach
- VII. Major Outputs
- VIII. State Activities

### III. THE WATER PROBLEM

This section discusses the current water quality problem in three distinct sets of waters: inland surface waters and estuaries, marine waters, and groundwater.

#### (1) Inland Surface Waters and Estuaries

Approximately one-third of the stream miles of the United States are in violation of the water quality standards which are the index of pollution. A strategy implemented with limited resources must isolate those areas where pollution is most severe and significant concentrations of population would benefit from cleaner water. Of the Nation's 267 water basins, 89 fall within this category. Here EPA Regional Administrators have reported serious pollution problems, or water quality assessments indicate major violations of standards (either in terms of miles of stream affected, or duration and intensity of the violations).

Table 1 shows how these basins were selected, starting with the 62 basins containing EPA priority areas and adding 27 basins with high pollution problems not attributable to non-point source pollution. Table 2 shows that these basins contain 65% of the Nation's population and 60% of the major industrial dischargers.

Intermittent oil spills in inland waters have grown in number. More than 1500 were reported in 1971 on the Great Lakes and along rivers. This figure does not include spills of hazardous materials now covered by legislation.

Elsewhere, as a result of point source and non-point source discharges of nutrients, eutrophication has emerged as a major problem in many of America's lakes, impoundments, estuaries, and slow-moving streams.

#### (2) Marine Waters

We know something about the frequency and magnitude of ocean dumping, ocean oil spills, and discharges from ocean outfalls, but little about their effects.

Over 62 million tons of assorted wastes (sewage sludge, dredge spoil, construction debris, toxic chemicals, etc.) are disposed

TABLE 1

	LOW NON-POINT CONTRIBUTIONS	HIGH NON-POINT CONTRIBUTIONS	TOTAL BASINS
BASINS CONTAINING EPA PRIORITY AREAS	52	10	89
OTHER BASINS:			
"HIGH" POLLUTION <u>a/</u>	27	18	
"MEDIUM" POLLUTION <u>a/</u>	30	10	154
"LOW" POLLUTION <u>a/</u>	68	28	
UNCATEGORIZED	—	—	24 (HAWAII, ALASKA, TRUST TERRITORIES)
			<hr/> 267

a/ BASED ON DATA PRESENTED IN THE ECONOMICS OF CLEAN WATER (1972). "HIGH" POLLUTION MEANS THAT THE FRACTION OF MILES HAVING STANDARDS VIOLATIONS IS HIGH, AND/OR THE DURATION AND INTENSITY OF VIOLATIONS IS HIGH. SIMILARLY FOR "MEDIUM" AND "LOW".

TABLE 2

## CONCENTRATION OF POLLUTION, POPULATION AND MAJOR INDUSTRIAL DISCHARGERS

	Number of Basins	% of Population	Number of Major Dischargers a/	Number of Major Industrial Dischargers Per Basin
Critical Basins	89	65%	1590 (60%)	18
Other Basins	178	35%	1078 (40%)	7

a/ Does not include 24 non-Priority Basins in Alaska, Hawaii and U.S. territories.

TABLE 3

SUMMARY OF TYPE AND AMOUNT OF WASTES DISPOSED OF IN  
PACIFIC, ATLANTIC, AND GULF COAST WATERS FOR THE YEAR 1968\*

Waste Type	PACIFIC COAST Annual tonnage	ATLANTIC COAST Annual tonnage	GULF COAST Annual tonnage	TOTAL Annual tonnage	TOTAL % Tonnage
Dredging spoils	8,320,000	30,880,000(a)	13,000,000	52,200,000	84
Industrial wastes bulk containerized	981,000 300	3,011,000 2,200	690,000 6,000	4,682,000 8,500	8 <1
Refuse, garbage(b)	26,000			26,000	<1
Sewage sludge(c)		4,477,000		4,477,000	7
Miscellaneous	200			200	<1
Construction and demolition debris		574,000		574,000	1
Explosives		15,200		15,200	<1
Total all wastes(d)	9,327,500	38,959,400	13,696,000	61,982,900	100

(a) Includes 200,000 tons of fly ash.

(b) At San Diego 4700 tons vessel garbage at \$280,000 per year were discontinued in November 1968.

(c) Tonnage on wet basis. Assuming average 4.5 percent dry solids, this amounts to approximately 200,000 tons dry solids per year being barged to sea.

(d) Radioactive wastes omitted. There were no dumps during 1968. Average annual disposal in 1969-1970 was 4.2.tons.

(e) Estimated costs were increased proportionately for each areas from the original Tonnage/cost data.

\*Revised and updated by James L. Verber, FDA.

of at sea each year in approximately 130 dumping sites. Table 3 shows the most recent information concerning their type and geographical distribution.

As of 1971, about 7000 oil spills were reported annually in marine waters within the limits of the contiguous zone (including the salt water portions of harbors, rivers, and bays). The volume of these reported spills, which exceeds 5 million gallons, represents perhaps 95% of the volume of all oil spills in this area. NOAA reported that together with spills on the high seas, this has resulted in the contamination by 1972 of over 665,000 square miles of the Western Atlantic.

Although dredge spoil accounts for 80% of the total by weight, ocean dumping is more dangerous in the case of industrial waste (10% by weight) and the smaller categories (10%) of sewage sludge, construction and demolition debris, solid waste, explosives and chemical munitions, and radioactive wastes. While the implications of dumping and spills for the ambient quality of the oceans are not well understood, the impact can clearly be severe in terms of the food chain, economic and recreational losses, and the esthetics of the ocean.

The FWPCA Amendments, in conjunction with the Marine Protection Act of 1972, give EPA the authority to regulate or prohibit the discharge or disposal of pollutants into marine waters.

### (3) Groundwater

Groundwater forms the base flow for all inland surface waters. It also accounts, in whole or in part, for the public water supply of one third of the Nation's 100 largest cities and 95% of its rural population, and over half the water used for livestock and irrigation. Once polluted, however, it lacks the self-cleansing properties of surface water and will remain unfit for use far longer.

The Nation's groundwater pollution problems arise mainly from deep-well and other subsurface disposal of wastes, percolation, and from excessive withdrawal of groundwater causing salt water intrusion.

There are significant technical problems associated with any general monitoring, regulatory, and water quality standards-setting activities for groundwater.

#### IV. NATIONAL STRATEGIC OBJECTIVES

Water pollution is not uniform throughout the country. The major sources of pollution and the level of effluent control needed both differ by geographical area. This non-uniformity, when set against a background of budgetary constraints, leads to the following water strategy:

- Attack water pollution in the areas where it is most serious and where it results principally from the discharges of point sources and controllable non-point sources. This will also maximize the program's impact on population, as shown in Table 2, which correlates population and basin geography.
- Preserve existing high water quality while sub-standard ambient conditions are improved to meet water quality standards.
- Promote the participation of States in implementing the Water Law. They will assume the major responsibility where feasible for basin and areawide planning, permitting, enforcement, grants review, etc.
- Concentrate on the 1977 water quality goals, but lay the groundwork for the future implementation of the 1983 goals.
- Issue discharge permits expeditiously, in consonance with the priorities described above.
- Establish an ongoing Federal/State management process which integrates planning and program formulation to set milestones and provide reports in terms of these milestones. In conjunction with the establishment of a National Water Quality Surveillance System, this will enable us to determine if water quality is actually improving toward the 1977 and 1983 goals.
- Institute procedures which assure the public of effective participation in establishing the direction of the water program. This will include active consultation during the early stages of policy formulation before public announcement.

## V. SEQUENCE OF IMPLEMENTATION

The water strategy is a sequence of timing and of relative priorities for implementing sections of the Water Law. Its philosophy is to provide critical information quickly where it is now lacking and to institute a strong program immediately where data are available. Phasing will allow for the development of further water quality data, final effluent guidelines, and certain new programs (e.g., ocean dumping, non-point). The groundwork has already been laid for prompt action in the following areas:

- the permitting of selected major dischargers,
- planning and monitoring in the basins where pollution is concentrated,
- grants for municipal plant construction, and
- enforcement against violators.

Table 4 presents the sequence of major inter-related activities under the water strategy through FY75.

All basins are to be divided into hydrologically discrete segments. The States will make a preliminary determination for each segment. Where the application of best practicable technology for industries and secondary treatment for municipal plants will result in meeting 1977 water quality standards, the segment will be categorized as an effluent guideline segment. Where this technological base will be insufficient and where the standards themselves will dictate the necessary level of effluent reduction, the segment will be classified as a water quality segment. Where there is significant doubt, a segment will be considered as a water quality limited segment subject to later reclassification as more data are generated.

Where a segment is effluent guidelines limited, the State will develop a management-type plan listing the dischargers into that segment and the schedule of compliance for these dischargers. It will not be necessary for a plan to be completed and approved prior to issuance of a permit.  
*(Phrase deleted)*

This management information will also be developed for water quality segments. In addition, the plan for these segments will develop, from monitoring surveys and data, maximum daily loads for pollutants for that segment, and establish target effluent reductions for dischargers on that segment. Once adequate water quality data are available, plans including wasteload allocations as well as permit sequencing will be developed.



TABLE 4  
SEQUENCE OF IMPLEMENTATION

	'73 FEB	JUN	'74 JAN	JUN	'75 JAN	JUN
WATER QUALITY SEGMENTS-- WITH DATA	Δ 303 plans (with load allocations)				▲	
	Δ Issue WQL permits (At least as stringent as interim BPT)		▲		▲	
	Δ Non-point source monitoring & demonstration programs (selected basins)					▲
WATER QUALITY SEGMENTS-- NO DATA	Δ Perform monitoring		▲			
	Δ 303 plans (with load allocations)				▲	
	Δ Issue WQL permits (At least as stringent as interim BPT)		▲		▲	
	Δ Non-point source monitoring & demonstration programs (selected basins)					▲
EFFLUENT GUIDELINES SEGMENTS	▲ SEGMENTS-- CLASSIFIED	▲		▲		
	Δ 303 management plans				▲	
	Δ Issue permits under int- erim BPT		▲			
					Δ Issue permits under final BPT	▲

TABLE 4  
SEQUENCE OF IMPLEMENTATION - CONTINUED

	'73 FEB	JUN	'74 JAN	JUN	'75 JAN	JUN
ALL SEGMENTS						
	Δ	Construction grants (high priority for projects required to meet WQS).				
	Δ	Enforce against existing known violators				
				Δ	Enforce against permit violators (include non-filers)	
<hr/>						
OCEAN	Δ	Develop ocean dumping program.	Δ			
			Δ	Issue ocean dumping permits.		
<hr/>						

Permit issuance can immediately follow wasteload allocation (without awaiting completion and approval of the plan) but *to the extent feasible* should be preceded by monitoring and/or analysis in areas without adequate data. Permit issuance should be consistent with any schedules incorporated in the State Industrial and Municipal Facilities Permit Lists.

Permits should be issued to all dischargers in all segments prior to December 31, 1974. After this date, dischargers without permits are no longer immune from either governmental or citizen legal actions.

Ten basins where the non-point problem is acute are selected for intensive monitoring and demonstration programs on non-point source pollution. The information and techniques gathered here will be used in subsequent years for other basins to develop assessments of the extent and causes of non-point source pollution.

Construction grants and enforcement activities should be consistent with the strategy. Construction grant awards *would be concentrated on historic eligibilities such as treatment plants rather than new eligibilities such as collection sewers*. This priority focus recognizes the enforceable requirements of the Law in contrast to those areas where construction may be desirable, but is not mandated. *Meeting the provisions of the 1972 Agreement between Canada and the United States on Great Lakes Water Quality requires a special high priority be given those projects that must be constructed to achieve the objective of that Agreement.*

Federal enforcement activities will initially be at a constrained level until permits are issued and permit conditions become effective. Selected enforcement resources will participate in efforts associated with the issuance of permits in water quality limited segments.

Complementary to the activities taken on inland surface waters, a program for controlling ocean outfalls and dischargers will be developed. Within three months the Agency will begin issuing permits to ocean dumpers, based on criteria research and directed first against toxic and hazardous discharges.

## VI. STRATEGIC GUIDANCE AND APPROACH

The primary sources of water pollution which the legislation identifies for control are industrial and municipal discharges, ocean dumping, and non-point sources. The water strategy structures lead areas of program activity, or modules, as a management approach to controlling these sources of pollution.

This section provides strategic guidance and the approach for each of the six modules--Planning and Monitoring, Permits, Municipal Construction, Enforcement, Non-Point Sources, and Ocean Dumping.

### A. Planning and Monitoring

#### 1. Strategic Guidance

The first objective in planning and monitoring is to assist the States in the revision of interstate water quality standards and promulgation of intrastate standards to meet the water use objectives set forth in the Law. Current revisions of standards will follow the policies in effect prior to the passage of the Act and shall be based on available information. Where the State's revision or promulgation is not satisfactory, EPA will act. The State/Federal standards should be adopted at the earliest possible date in order to establish a firm target for 1977. The revisions will be adopted in all States by the end of FY 1974.

Until December 31, 1974, the second objective is to complete plans under the authority of section 303 for all river segments. These plans will be aggregated as basin plans and thereafter reviewed and revised as such. For segments on which water quality standards would be met after the application of best practicable technology and secondary treatment, 303 plans would:

- indicate the basis for classifying the segment as effluent limited (or water quality limited),
- contain the abatement schedules or target abatement dates of significant dischargers, and
- provide a management structure for processing grants and permits.

For segments in which industry could be required to go beyond best practicable technology and municipal plants to go beyond secondary treatment, these plans would, in addition, include for each discharger of each parameter in violation of standards, a target load reduction under which water quality standards would be met. At a future time estimates of maximum daily loads will be done for all segments.

A third objective in this field is to encourage, under section 201 authority, planning for the cost effectiveness and technical effectiveness of municipal waste treatment facilities. In metropolitan areas this planning can be performed on an areawide scale. This strategy provides that a municipal project must conform to the 201 plan for its area before it can be eligible to receive any further stages of a construction grant.

A fourth, and long-term, objective is to complete plans under section 208 which would coordinate all water pollution control efforts, including non-point source control, on an areawide basis. This strategy gives these plans a delayed priority except where there is a strong local desire to create such a planning authority. The plan developed under section 208 will generally focus on 1983 goals.

Water quality monitoring and analysis should be performed wherever it is necessary to complete these plans and to issue permits.

A final objective is to create a State program reporting process which enables EPA to measure in specific quantitative terms progress towards the objectives set out both in legislation and in State plans. This information will come from State section 106 resource and accomplishment reports to EPA which include monitoring data to indicate changes in water quality and to assess the relative amount of pollution from point and non-point sources. This information, which will be supplemented by other data derived from the National Water Quality Surveillance System, will be particularly important as we assess the means of achieving the more stringent water quality goals in 1983 and 1985.

The three principal kinds of plans envisaged in this strategy - those under sections 303, 201 and 208 - differ in their timing, their focus, and their geographical application. 303 plans are basin-wide and consider, by segment, the effect of discharges on the condition of the receiving water. They provide a management schedule for municipal and industrial point sources (and ultimately non-point sources) for attaining the desired improvement in water quality. 201 and 208 plans have only area-wide application. Moreover the purpose of 201 plans to determine cost-effectiveness makes them source-oriented, in contrast to 303 plans. They provide a reasoned choice from among alternative sites and alternative treatment technologies for the construction of municipal facilities. 208 plans are more complex than 201 plans, in the planning and in the implementation, and affect the investment of both public

and private resources over a longer period of time. They are developed for metropolitan areas with critical water conditions, where the pollution from such non-point sources as urban run-off is a major factor which must be considered along with point sources discharges, and where the control of land use may be necessary for the control of water pollution.

## 2. Approach

### Water Quality Standards

Step 1 - Interstate standards and previous intrastate standards have been submitted. States should submit to EPA their proposed standards for intrastate waters not previously covered by April 18, 1973. EPA will determine the consistency of all standards with the Law.

Step 2 - If revisions are required the State will be notified of the revisions requirements and requested to make changes.

Step 3 - If the State revises in a manner acceptable to EPA, the standards are promulgated. If the State does not submit acceptable standards, then EPA will promulgate these itself. By June 1974 there will be water quality standards for all navigable waters.

### 303 Plans

Step 1 - States should classify all river segments as either water quality limited or effluent guidelines limited. An effluent guidelines limited segment would meet water quality standards after the application of best practicable control technology for industry and secondary treatment for municipal plants. All other segments are water quality limited. If there is substantial uncertainty on the classification of a segment, it should be categorized as water quality limited. Appendix A provides more detailed criteria for making the classifications using existing data.

States should submit this list of classifications as part of their submittal of the continuing planning process (303(e)). The Regional Administrator and the State should review this list to their mutual satisfaction.

Step 2 - On water quality limited segments for which adequate data are available to make load allocations, these plans should be submitted no later than June 30, 1973.

Step 3 - On water quality limited segments for which adequate data are not available to make load allocations, States should identify the resources and time schedules for obtaining the necessary data and completing 303 plans in sufficient time so that the plans can be used as a basis for issuing permits. Permits under the law should be issued by December 31, 1974. States should submit this resource information annually as part of their State program report under section 106. States should proceed in monitoring and data analysis so data will become available to make load allocations. Plans for these segments (and for effluent guidelines limited segments) should be submitted as soon as they are completed.

Step 4 - On effluent guidelines limited segments, State should begin preparing 303 management plans.

#### 106 State Program and Reports

Once the tasks by basin have been defined in the 303 management plans, the States will formulate under section 106 an annual program strategy which identifies, by program area:

- the work to be accomplished during the year,
- the State resources assigned to target accomplishments, and
- the manner in which these resources will be applied.

Under the reporting provisions of section 106 the States will report semi-annually on the achievement of milestones, and annually on the deployment of resources. Further guidance on this report is contained in Appendix B.

#### 201 Plans

Step 1 - Local planning agencies should continue current 18 CFR plans until Title II grant regulations and revised 18 CFR guidelines are promulgated.

Step 2 - EPA will respond to new local initiatives for facility plans under the construction grant program. For grants purposes, 201 planning will be considered as the first and a necessary step in the construction of publicly owned treatment works.

Step 3 - Existing areawide planning agencies can coordinate, as an interim step to 208 planning, the concurrent development of several 201 plans.

## 208 Plans

Step 1 - Using the guidelines for 208 designation and the analyses of 303 plans, States will identify areas where section 208 authorities are likely to be established.

Step 2 - EPA will enter into contractual agreements with planning agencies to fund plans for the designated areas meeting all 208 requirements.

Step 3 - In these areas, areawide planning oriented to 1983 goals of legislation should be developed.

Step 4 - For those areas which are not 208-designated, as part of its continuing planning process, the State may act as the 208 planning and implementing agency for non-point source and groundwater control.

## B. Permits

### 1. Strategic Guidance

The first emphasis for permit issuance is placed on dischargers into water quality limited segments which have adequate data for 303 plans. Permits to dischargers in other water quality segments will be written as technology information and plans are completed. If data collection and analysis on water quality segments will not be completed in sufficient time to meet the December 31, 1974 date for issuing permits, permits should be issued based on the best technical judgment of ambient conditions. Where final guidelines on control technology have not been promulgated, permits should similarly extrapolate from existing effluent guidelines.

Analysis and load allocations need only be done for those parameters which will not be at standards level. Where standards criteria do not apply, effluent guidelines would be used. As an example, a significant discharger in a water quality segment may find that the level of discharge of three of his pollutants is established by load allocations, while seven other pollutants are controlled by effluent guidelines.

The schedules for permit issuance to municipalities should be consistent with the schedules for construction grants. Permit issuance should reflect practical judgments. Significant dischargers with long abatement schedules should be targeted first. Minor dischargers with little or no abatement requirements should be given a lesser initial priority. Permit issuance should be balanced so that the most efficient use of available resources results in getting the greatest number of significant dischargers permitted.



In water quality segments where analysis indicates that the predominant reason for not achieving water quality standards is non-point source pollution, and point source abatement would not achieve standards. Discharge limitations should be based on effluent guidelines where supplemental non-point source control programs will not be adequate to achieve standards.

## 2. Approach

Interim (Prior to issuance of final effluent guidelines)

Step 1 - Permits would be issued as follows:

a. Permits will be issued to dischargers in segments where water quality standards will dictate permit conditions and where adequate water quality data are available to write water quality limited permits.

b. Permits will not be issued to dischargers in segments where water quality standards will dictate permit conditions and where adequate water quality data are not available to write water quality limited permits.

c. Permits may be issued to dischargers who are (1) in segments where water quality standards do not dictate permit conditions, and (2) in industries where adequate interim effluent guidance is available in the absence of a promulgated guideline based on best practicable control technology currently available.

d. Permits may be issued to dischargers who are (1) in segments where water quality standards do not dictate permit conditions, and (2) in industries for which effluent guidelines are not planned to be issued.

Final (After issuance of final effluent guidelines)

Step 1 - Permits will be issued on water quality limited segments as adequate data are developed. If load allocation data will not be available by *the middle of 1974*, then the permit should be written on the basis of existing effluent guidelines and the best technical judgment of ambient conditions.

*Step 2 - Permits will be issued to dischargers who are (1) in segments where water quality standards do not dictate permit conditions, and (2) in industries where best practicable control technology currently available guidelines have been promulgated.*

Step 3 - The priority and scheduling of permits shall be in accordance with the State Municipal and Industrial Permits Lists contained in the annual State program submission.

Step 4 - All dischargers should be permitted by December 1974.

### C. Municipal Construction

#### 1. Strategic Guidance

The first objective of this module is to manage funding of the cost of "construction" of eligible "municipal treatment works," as defined in the Water Law, so that those works will meet the effluent and ambient requirements set by the Water Law for 1977 and 1983. The second objective is to establish the principle that municipal works should be not only cost-effective, but also ultimately self-sufficient through the practice of user charges and capital cost recovery. The third objective is to operate and maintain efficiently the plants that are now constructed.

The establishment of appropriate priorities is critically important in maximizing the program's impact on water quality. States will develop the priorities for construction through a State Municipal Facilities Grants List, subject to EPA review.

EPA will coordinate, process, award, and oversee municipal construction grants. It will also participate in each stage of the construction of treatment works, with particular emphasis on pre-application and design conferences and on the consideration of cost-effectiveness and environmental impact. A management system will be developed to ensure nationwide uniformity of construction grant processing and monitoring. The States, wherever possible, shall be responsible for the detailed review and certification of engineering reports, studies, and construction plans and specifications. EPA will maintain final approval authority for any action required of the Agency by statute, such as entering into contractual obligations.

The operation and maintenance program will be used to determine which plants currently operating are not in compliance with the 1977 standards and to ascertain what is required to bring them into compliance. State records, surveillance and analysis data, and permit applications will be relied upon to locate the problem areas. On-site operation and maintenance visits, as well as training programs for plant operators, will be available to municipalities to correct deficiencies. These efforts will focus on priority basins and on plants where the required degree of improvement can be achieved without additional major capital investment. Manpower training will primarily support the operation and maintenance program. Regional training programs should assess training needs, encourage the States to meet those needs, and move to satisfy deficiencies.

## 2. Approach

Step 1 - Prepare guidelines and regulations governing the approval of construction grant applications, including such prerequisites as user charges and capital cost reimbursement. An outline of these requirements is included in Appendix C.

Step 2 - Assist communities and States in adjusting their applications to these guidelines and regulations.

Step 3 - Beginning in FY 73, ensure EPA participation particularly in pre-application and design conferences. Major assistance will be needed in successfully integrating industrial pretreatment requirements into the design plan for the municipal facility.

Step 4 - Prepare guidelines for EPA Regional Offices which will ensure that construction grant processing and monitoring is directed on an essentially uniform basis across the Nation. The management system developed in these guidelines will cover a project from pre-application conferences through the operation and maintenance of the facility.

Step 5 - Prior to June 30, 1973, issue pending grants in accordance with current State priority lists.

Step 6 - By June 30, 1973, the Regional Administrator and State authorities should modify/develop the State Municipal Grants List which is part of the annual State program submission according to the following guidelines which are stated in order of importance:

a. Projects which are *required to meet water quality standards* and which must comply with the enforceable provisions of the Law-- i.e., treatment works that provide secondary treatment or any higher level of treatment dictated by water quality standards. Included in this category are ancillary improvements which must be done in conjunction with an award, such as a cost-effective solution to certified excessive infiltration into sewers.

b. Projects which are *not required to meet water quality standards but* which must comply with the enforceable provisions of the Law-- i.e., treatment works that provide secondary treatment. This would include ancillary improvements as described in Step (a) above.

c. Projects that are desirable in terms of water quality improvement, but against which the enforceable provisions of the Law for secondary treatment can not be applied--e.g., storm and combined sewers. These projects will be subject only to the treatment requirements necessary to meet water quality standards.

d. Projects which are not discharges--e.g., collection sewers or recycled water supplies. Collection sewers may be given higher priority where there is a special problem of groundwater contamination, or where they are an integral part of a waste treatment system (which includes a treatment plant) for a community which previously was without such a system. *This ranking of importance does not mean that all projects in class (a) must be funded before initiating projects in class (b), and so forth.*

#### D. Enforcement

##### 1. Strategic Guidance

In FY 73 and FY 74 the enforcement objective is to complete enforcement proceedings on actions initiated prior to the passage of the Water Bill.

In FY 74 and FY 75, as permit conditions and implementation schedules come into effect, enforcement actions will be taken against violators.

Emphasis will be placed on shared responsibility with the States for enforcement. Where States cannot maintain an adequate enforcement level, the Federal Government will ensure enforcement. The Federal role is a backup role.

##### 2. Approach

Step 1 - In FY 73 and FY 74

a. Complete enforcement proceedings initiated before the enactment of the new law and which are retained by the savings provision.

b. Initiate proceedings against dischargers who fail to apply for a NPDES permit.

c. Continue to support proceedings and initiate new proceedings where appropriate under either the Refuse Act or Section 311, to control oil and hazardous material spills.

Step 2 - During FY 73 and FY 74 surveillance personnel will support the development of monitoring data necessary for the preparation of permits in those basin segments where permit conditions will be established by water quality requirements rather than by effluent standards.

Step 3 - In FY 75, as permit conditions and implementation schedules come into effect, enforcement activities will emphasize:

a. Identification of violations of discharge conditions or schedules of compliance; and initiation of proceedings to correct and/or penalize these violations.

b. Conduct of a statistically significant review of discharger monitoring reports.

c. Selected audit, through effluent sampling, of discharger monitoring reports.

#### E. Non-Point Sources

##### 1. Strategic Guidance

Non-point source (NPS) activities will not be oriented at first towards aggressive control and enforcement. Knowledge on the formation, extent, and effects of NPS pollution is limited. More important, the pervasive dispersed nature of NPS pollution does not lend itself to the conventional application of control technology such as waste water treatment plants. Therefore, this strategy aims at the eventual control of NPS pollution through local combinations of treatment, preventive management techniques (*appropriate applications of contour farming, construction site terracing, and clearcutting in forests, etc.*), and, as a framework, legislative initiatives to promote proper land use and NPS prevention (such as EPA's model sedimentation law).

Over the next two years, to correct for the informational deficiencies surrounding NPS pollution, each State through its 303(e) planning process and 106 reports will:

- develop a profile of its particular NPS problems, and
- prepare an assessment of what it feels to be the most effective mix of available prevention and control techniques for its particular set of NPS problems.

In the same period EPA will be primarily responsible for research on the generation and effects (by type) of NPS pollutants, and for the development and assessment of additional prevention and control techniques and strategies.

The coordination of these State and Federal efforts should allow for the establishment within three years of local and State NPS pollution control programs focused on the achievement of 1983 ambient goals.

Where eutrophication is a special problem--in lakes, slow-moving rivers and estuaries, and impounded waters--this strategy calls for State-directed monitoring and analysis, to be the basis for State eutrophication control programs within the 303 planning process. These will cover the initial efforts of the lake restoration program authorized by section 314.

The Federal Government does not have explicit authority to control groundwater pollution under the FWPCA Amendments. However, the Law does provide the States with the authority to develop a groundwater regulatory program under section 208, and requires them (section 402(b)) to have the authority to control subsurface disposal as a condition for State assumption of the Permit Program.

This Strategy envisages the active use of the States' authority to begin a program of State control and enforcement. EPA will conduct research specifically to support a well disposal control program, but more generally also to investigate the formation and effects of groundwater pollution, and the possibility of its consideration as a form of non-point source pollution. An expanded mandate may come in the groundwater area, through new legislation or the interpretation of existing law, as the extent and severity of groundwater pollution become known.

## 2. Approach

### General NPS

Step 1 - Many States presently have some form of NPS control and enforcement. These programs should continue, and States be encouraged to adopt the model sedimentation law.

Step 2 - EPA will publish information by October 1973 on processes and procedures of control and on the identification of NPS pollution.

Step 3 - States should develop a program for the accurate characterization of their NPS problem as part of their 303(e) planning process.

Step 4 - EPA, as part of the 303(e) planning process, will begin intensive monitoring and selective demonstration programs in ten of the most severely NPS-polluted basins in the country. The techniques developed here will be used in other basins to assess and ameliorate their NPS pollution problems.

Step 5 - EPA will establish an information and action liaison with the other Federal agencies involved in the NPS problem--DOT, HUD, USDA, DOI. This will draw attention to the water quality implications of their supervision of public lands and their programs for private development.

Step 6 - For the FY 1974 State program submittal, each State should indicate those waters where NPS pollution will make the attainment of water quality standards difficult, outline the major sources of NPS pollution, and identify the range of available institutional management actions for the prevention of NPS pollution.

Step 7 - For the FY 1975 State Program submittal, each State should include a program for the initiation, in that year, of the NPS institutional controls identified in FY 1974. Also, by FY 1975, localities which have approved areawide waste treatment management authorities under section 208 should make provision for NPS control measures in their planning process.

Step 8 - For the FY 1976 State program submittal, each State should include:

a. As part of the initial submittal, a quantitative analysis of the various types of NPS pollution in their State, the relative contributions from each, the geographical distribution of the sources and their areas of major effect.

b. As part of the final submittal, plans for the FY 1976 implementation of an NPS prevention, control and enforcement program in identified areas. A statewide NPS program may be effected by the extension of the NPS portions of the 208 planning process to the entire State as provided in section 208.

#### Lake Eutrophication

Step 1 - In their initial survey of navigable water conditions under the 303 planning process, States will also determine which of their lakes, rivers, impoundments and estuaries are eutrophic.

Step 2 - Where a body of water is found to be eutrophic, water quality analysis will be performed to establish the relative contributions of point and non-point sources. In this analysis, the Federal Government will assist the States directly by providing technical assistance and supplementary data derived from the National Eutrophication Survey.

Step 3 - Where the primary reason for lake eutrophication is the discharge from point sources, limitations based upon effluent guidelines or a higher degree of treatment necessary to decelerate eutrophication may be imposed.

Step 4 - Where the primary reason for eutrophication is pollution from non-point sources,

a. limitations based upon effluent guidelines will be imposed on point source discharges.

b. States shall develop nutrient control strategies, (using EPA's 304(e) NPS information and guidelines for cost-effectiveness) to be implemented with other NPS programs no later than FY 76.

#### Groundwater

Step 1 - States in which there is well disposal of waste will provide for its control in the plans developed by the 303 planning process.

Step 2 - EPA will develop a national policy on subsurface waste disposal and will encourage the adoption for Federal, State, and local implementation of the Council of State Governments' model law on toxic waste disposal and other model legislation.

Step 3 - EPA will conduct research on the formation and effects of groundwater pollution; on concepts and techniques for groundwater monitoring; and on criteria for the selection of well disposal sites, aquifer withdrawal, and aquifer recharge.

Step 4 - At a future time States will expand their control program to encompass other sources of groundwater contamination.

#### F. Ocean Dumping

##### 1. Strategic Guidance

Because of resource constraints the ocean dumping strategy concentrates on those pollutants which are toxic, bioaccumulative, and/or disease-bearing. Major substances that are known to be detrimental to marine life will receive first priority in the issuance of ocean dumping permits. Appropriate process and effects research will be conducted to understand the consequences of other pollutants dumped. Ocean dumping permits will remain solely a matter of Federal jurisdiction.

##### 2. Approach

Step 1 - EPA develops guidelines for the issuance of permits, with the first ocean discharge criteria to be available April 18, 1973.

Step 2 - EPA develops an ocean dumping permit program.

a. Prior to April 18, 1973, assemble the personnel and develop procedures for permit issuance.

b. Issue permits to ocean dumpers, with a goal of 1,000 permits issued by June 30, 1974.



## VII. MAJOR OUTPUTS

Table 5 is an estimate of the accomplishments in terms of plans, permits, construction grant obligations, and enforcement actions, which could result from the implementation strategy for the Water Law.

### Plans

Within two years there will be a State 303 plan, or at a minimum the necessary water quality analysis, to govern the management and discharger control process for each of the 267 basins in the country. The plans are divided into management plans for segments where effluent guidelines will control dischargers, and waste load allocation plans for segments where water quality standards will govern. Of the 267 basins, it is estimated that there are 178 basins where there are relatively few water quality limited segments. More complex and detailed plans will be developed for the smaller number of basins (89) where load allocations must be made to meet water quality standards. Both sets of plans will be prepared by States. Existing data are believed to be sufficient for 30 basins where water quality is the major limiting factor. It is expected that plans for these areas can be ready by the end of FY 73. In addition, 45 management plans could be completed. By the end of FY 74 more than 3/4 of the basin plans will have been prepared, with the balance to be completed six months into FY 75. Local-level 201 plans are designed to provide cost-effectiveness data to assess topical environmental conditions, to guide facility planning. Section 208 plans of broader scope will be developed for a limited number of metropolitan areas with critical water quality problems after FY 75.

### Permits

Permit figures for both industrial and municipal dischargers show an initial concentration of agency efforts in water quality limited segments with adequate data. Initial permit issuance will focus on industry and agriculture, where a considerable number of applications exist. There are no permit applications presently on file from municipalities. These have until April 1973 to file their applications, which substantively postpones permit issuance for municipal treatment works until FY 74.

### Grants

EPA has been directed to allot \$5 billion over the course of FY 73-74. A strategy of meeting water quality goals by 1977 dictates that the entire amount be obligated. The time delay involved in initial construction grants

review and projects conforming to the new prerequisite conditions accounts for the bulge in FY 74 obligations as compared to the figures for the preceding years.

#### Ocean Dumping

EPA will begin issuing ocean dumping permits at the rate of 1,000 per year in late FY 73. Although this is the estimated total number of major dischargers, no drop-off in the number of permits in FY 75 is anticipated because of the possibility of new dumpers, revised discharge criteria, and the irregular nature of many disposals. In FY 74 a national contingency team will be formed as well, equipped to respond to any major oil or hazardous material spill in the country and serving as a model for possible future State or additional Federal teams.

#### Support Outputs

Many important Federal activities do not appear in Table 5 because their role is essentially supportive. They are still essential to the success of the primary outputs and are therefore tailored to this strategy. By the end of 1973 final effluent guidelines for 27 major industries will have been promulgated for use by State and Federal permit authorities, defining best practicable technology, best available technology, and new source performance standards. In addition an effort will be well advanced to provide guidelines for at least 7 more major industries in early 1974. A standard of secondary treatment for municipal treatment works is scheduled for publication in February. Other regulations on pretreatment, user charges, capital cost recovery, and cost effective planning are being developed to support grants and permits to municipalities. A major research effort into fresh and salt water quality criteria will result in a more complete and up-to-date set of water quality standards, singling out toxic and hazardous substances for special attention. Criteria and information are also being developed to support a non-point source identification and control program.

NOTE: These Program Outputs were developed by EPA Headquarters and do not reflect EPA Regional Office or State Agency program plans that are being developed in the 4th Quarter of FY73.

TABLE 5  
MAJOR PROGRAM OUTPUTS

	<u>1/2 YEAR FY 73</u>	<u>1 YEAR FY 74</u>	<u>1 YEAR FY 75</u>	<u>TOTAL</u>		
<u>PLANNING AND MONITORING</u>						
303 MANAGEMENT PLANS	45	89	44	178		
303 PLANS	30	44	15	89		
NON-POINT BASIN MONITORING SURVEYS (303 PLANS)	0	5	5	10		
201 PLANS	110	810	810	1730		
208 PLANS *						
<u>PERMITS</u>						
INDUSTRIAL	<u>WQL</u>	<u>OP</u>	<u>WQL</u>	<u>OP</u>	<u>WQL</u>	<u>OP**</u>
	536	400	664	600	360	200
	1100	150	2700	10700	1900	4100
MUNICIPAL	<u>WQL</u>	<u>OP</u>	<u>WQL</u>	<u>OP</u>	<u>WQL</u>	<u>OP**</u>
	0	0	750	550	750	550
AGRICULTURAL	<u>WQL</u>	<u>OP</u>	<u>WQL</u>	<u>OP</u>	<u>WQL</u>	<u>OP**</u>
	0	0	5750	4450	5750	4450
AGRICULTURAL	<u>WQL</u>	<u>OP</u>	<u>WQL</u>	<u>OP</u>	<u>WQL</u>	<u>OP**</u>
	100	100	800	800	2000	2000
AGRICULTURAL	<u>WQL</u>	<u>OP</u>	<u>WQL</u>	<u>OP</u>	<u>WQL</u>	<u>OP**</u>
	400	400	3600	3600	8000	8000

\* Numbers to be supplied.

\*\*WQL = permit terms governed by water quality considerations

OP = all other permits

NOTE: These Program Outputs were developed by EPA Headquarters and do not reflect EPA Regional Office or State Agency program plans that are being developed in the 4th Quarter of FY73.

TABLE 5  
MAJOR PROGRAM OUTPUTS -- CONTINUED

	<u>1/2 YEAR FY 73</u>	<u>1 YEAR FY 74</u>	<u>1 YEAR FY 75</u>	<u>TOTAL</u>
<u>MUNICIPAL CONSTRUCTION</u> (EXCLUDES NEW ELIGIBILITIES)				
• ALLOTMENT	\$2.0B	\$3.0B		
• OBLIGATIONS	\$0.5B	\$4.4B		
• PROJECTS OBLIGATED	300	2200		
• PROJECTS COMPLETED	—	133		
<u>NON-POINT SOURCES/OCEAN DUMPING</u>				
• OCEAN DUMPING PERMITS	0	1000	1000	2000
• CONTINGENCY TEAMS		1		1

## VIII. STATE ACTIVITIES

The water strategy emphasizes, where possible, State participation in and responsibility for the implementation of the Water Law. Hence the following section, which is a matrix of the activities to be performed by the States, or encouraged, in each of the program areas. This material is elaborated in Appendix D. Where it is feasible the Federal role will be restricted to issuing guidance, providing financial and technical assistance, and reviewing accomplishments.

### A. Planning and Monitoring

States have the primary responsibility for the 303 process. They classify segments as either water quality limited or effluent guidelines limited. On water quality segments, they complete load allocations and 303 plans, performing monitoring and analysis where required. On effluent guidelines limited segments, they complete 303 management plans.

The Federal role is to provide guidance and technical assistance to the planning process and to review the plans when completed.

States also formulate an annual report program which describes the interim milestones to be achieved during the year (based upon past progress and the ultimate goals of their 303 plans), the State resources to be assigned in meeting those goals, and the manner of assignment.

The States have the primary responsibility for reviewing local 208 plans. Their responsibility is to ensure adequacy, completeness, and compatibility with the overall process of implementing the Water Law.

### B. Permits

As much as possible of the permit program will be transferred to State authorities. When this transfer does not occur, the basis for many of the permits issued will be agreement with the States, supported by analyses performed under the 303 planning process as such become available.

### C. Municipal Programs

Each State has responsibility for developing its construction grants priority list. This list will reflect the use of criteria for ranking projects as set forth by EPA. All awards of Federal money allotted to States by the needs formula will be based upon this list.

States will increase their role in reviewing plans and specifications for treatment works. Prime responsibility for seeing that treatment plants operate correctly shall also be the States'.

The Federal role will be to develop criteria for the construction grants priority list, to provide funds at the applicable rate for approved projects, and to participate in the stages of construction with an emphasis on pre-application and design conferences, cost effectiveness determination, and environmental impact.

D. Enforcement

Emphasis will be placed on shared responsibility with the States for enforcement. Where States cannot maintain an adequate enforcement level, the Federal Government will ensure enforcement. The Federal role is a backup role.

E. Non-Point Sources

Non-point source pollution *control* is basically a State problem. States will therefore be responsible for the planning and implementation of all problem identification activities and for the development of appropriate control strategies. States should consider the special relation of NPS pollution to lake eutrophication. In those areas where deep-well disposal is practiced, States should also develop disposal control programs.

EPA's support of the States will consist primarily of technical assistance and supplementary monitoring. However, Federal agencies will take direct action regarding NPS problem identification and control on Federal lands.

F. Ocean Dumping

The Ocean Dumping program is primarily a Federal program.

APPENDIX A

Criteria for Water Segment Classes a/

As part of the section 303(e) planning process, the Governor of each State shall submit a classification of segments to the Regional Administrator.

The term "segment" means a portion of a basin the surface waters of which have common hydrologic characteristics (or flow regulation patterns) and common natural physical, chemical, and biological processes, including reactions to external stresses.

Classification shall be based upon measured in-stream water quality, where known, or where not known, estimated in-stream water quality in the area of maximum pollutant concentration. Each segment shall be classified as follows:

(1) Water Quality Class: Any segment where it is known that water quality does not meet applicable water quality standards, and which is not expected to meet water quality standards even after the application of the effluent limitations required by sections 301(b) (1) (A) and 301(b) (1) (B) of the Act.

(2) Effluent Limitation Class: Any segment where water quality is meeting and will continue to meet applicable water quality standards or where there is adequate demonstration that water quality will meet applicable water quality standards after the application of the effluent limitations required by sections 301(b) (1) (A) and 301(b) (1) (B) of the Act.

Any classification shall reflect any necessary allowance for anticipated economic and demographic growth over at least a five-year period and an additional allowance reflecting

a/

Excepted from §§130.2(m) and 130.11 of section 303(e) regulations proposed by EPA.

the degree of precision and validity of the analysis upon which the classifications are based. Where the analysis is less precise or there is uncertainty concerning growth projections, a greater margin of safety shall be required for the assignment of any segment to an Effluent Limited Class.



## APPENDIX B

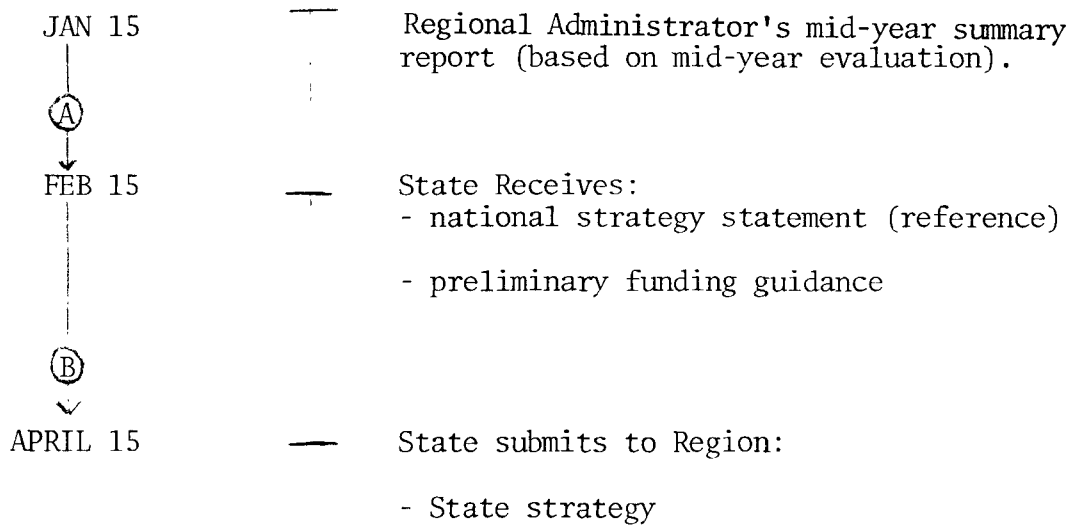
STATE PROGRAM GUIDANCE  
FOR STATES AND EPA'S REGIONS

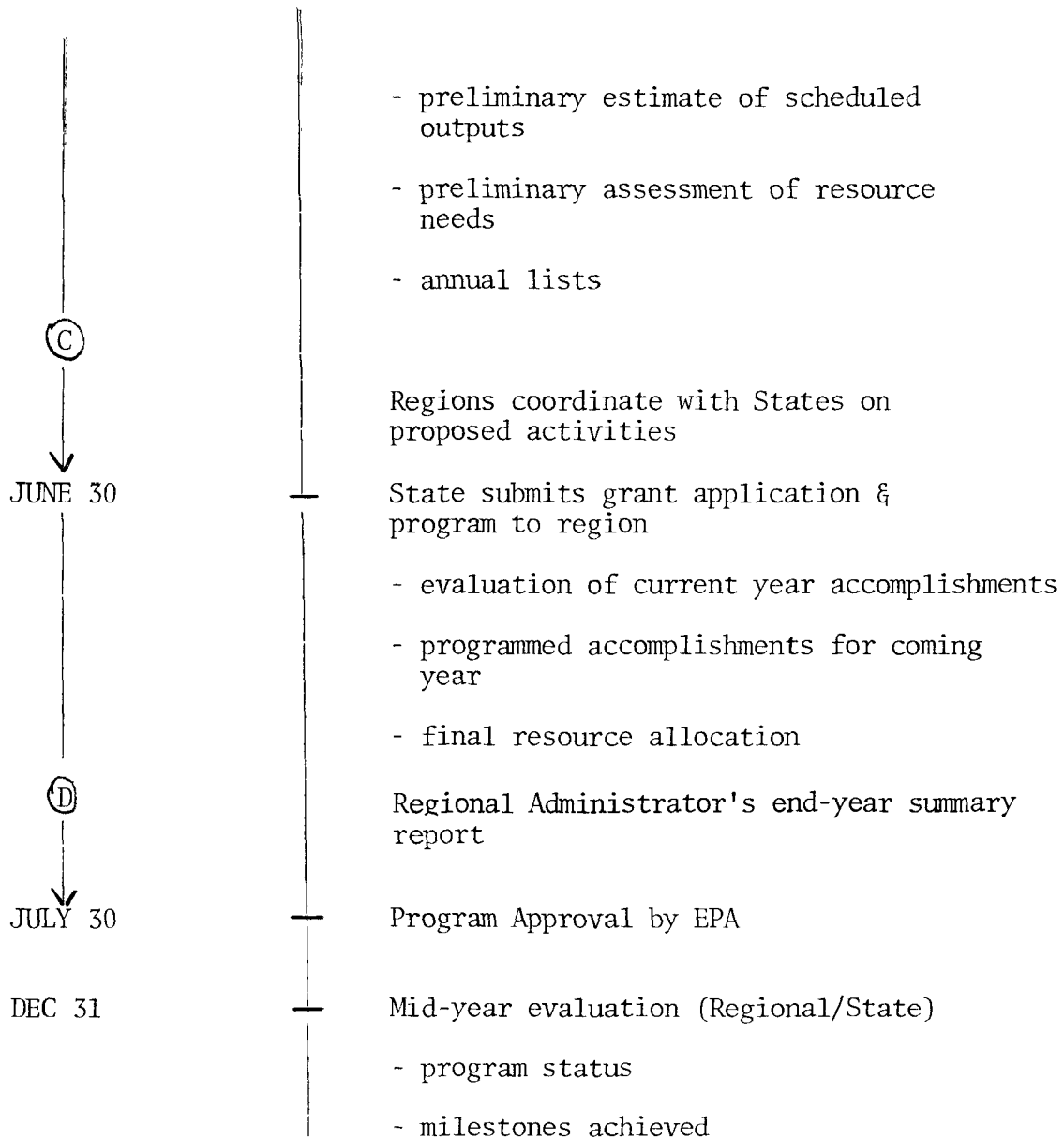
## A. General

The State Program plans and reports provide:

- a means of developing individual State strategies that are consistent with the national strategy.
- a mechanism for the timely exchange of funding information
- a systematic method of reviewing and evaluating actual and programmed accomplishments to improve water quality.

To provide the structure noted above, the programming activity must be viewed not as a single annual submission, but an orderly system of activity over the year. The diagram below provides a snapshot of the system.





## B. Funding

Normally, each State will receive preliminary funding guidance by February 15 and funding guidance by April 15 (subject to later adjustments resulting from Congressional appropriation process). Because the FWPCA changed the basis upon which federal program grants are allocated, preliminary funding guidance will not be available until a new formula is developed and approved. The target date for FY'74 funding guidance is March 30.

## C. State Guidance

The accomplishments listed in the State summary output form generally indicate the areas in which the States' major activities should take place during fiscal 1974. Most of the high priority outputs reflect areas in which joint State and EPA responsibilities exist. The State outputs in some of these areas, such as grants awards and Section 201 cost-effectiveness plans, might only be outputs to the extent that the applications are reviewed and approved by the States.

1. For the initial submission of the State program in mid-April, each State will list the accomplishments it anticipates in the coming fiscal year. This forecast will be accompanied by an assessment of the water quality problem within the State, an outline of projected geographic and programmatic priorities, and a tentative statement of resources to be employed based upon the best available knowledge of Federal and State program funding. The initial April submission will provide a basis for

public hearings and for discussions between the State and the EPA Regional Administrator on the program. Reflecting these discussions and the final budget figures from Federal and State sources, the State will make its final program submission in June.

2. A report on the outputs of the previous fiscal year will be required as part of the final State program submission.
3. A report on outputs will also be required each January, for the Regional Administrator, on the accomplishments of the first six months of the current fiscal year, together with a discussion of program status.

A list of permit and grant recipients should accompany all submissions of the State summary output form, both when it is used retrospectively to report on accomplishments (July and January), and when it is used prospectively to forecast accomplishments (April and July).

# ATTACHMENT

## SUMMARY OUTPUT FORM

The following output or accomplishment measure as indicated in the attached table should be included in the State report.

1. Medium	2. State	3. Date
4. Output	5. Units	
<u>PROGRAM</u>		
1. Industrial permit issued	# of permits by each water quality segment	
	# of permits by industrial category	
	# of permits to major/minor dischargers	
2. Municipal permits	# of permits issued	
	# of permits to major/minor dischargers	
3. Agricultural permits	# of permits issued	
4. Other permits (commercial, vessel, government)	# of permits issued	
5. Water quality limited segments with adequate data for permit issuance	# of segments	
	% of segments requiring such data	
6. Basins with adequate data for all water quality limited segments	# of basins	
	# of all basins requiring such data	
7. 303(e) basin plans	# of plans completed	
8. O&M surveys conducted	# conducted	
9. Operator training conducted	# trained	
	# certified	
	# certified as % of all operations in State	

1. Medium \_\_\_\_\_ 2. State \_\_\_\_\_ 3. Date \_\_\_\_\_  
 4. Output \_\_\_\_\_ 5. Units \_\_\_\_\_

10. Deleted.

- 11. Water quality standards # of interstate standards revised  
 # of intrastate standards revised
- 12. Section 201 cost-effectiveness # certified by state
- 13. Trend stations # of stations put in operation  
 % of State stream miles covered by stations
- 14. Non-point source problem evaluation # of basins evaluated

COMPLIANCE

- 15. Waste water treatment plants # of plants  
 in compliance with permit % of plants in compliance  
 conditions
- 16. Industrial dischargers in % in compliance  
 compliance with permit % of major dischargers in compliance  
 conditions % of minor dischargers in compliance
- 17. Construction grants # of projects  
 completions \$ value of projects
- 18. Compliance with standards # of miles  
 % of all stream miles in State

1. Medium _____	2. State _____	3. Date _____
4. Output _____	5. Units _____	

WATER QUALITY IMPROVEMENT

19. To be determined

D. Regional Guidance

1. Tactical Guidance

The first objective is to conduct a regional review of the State's program strategy as submitted annually in response to the annual strategy developed by EPA.

The second objective is to review and assess State effectiveness in carrying out program plans, by analyzing State program reports.

The third objective is to correlate State accomplishment of 303(e) plans with the scheduling requirements for the planning and permitting efforts.

The fourth objective is to review State lists of dischargers; municipal needs, and priority of construction projects and priority of permits to be issued.

2. Task Assignments

(a) 303/106 State Plans and Programs - These plans and programs will be formulated at the State level. Once program requirements and schedules have been defined by the 303 management plans, the States should incorporate these plans within the annual strategy and program under Section 106. Where plans are not available the States should utilize available information in developing the State strategy.



- Step 1 - Provide the States with the national strategy developed by EPA.
- Step 2 - Assist the States in integrating the objectives of the national strategy into their own strategy.
- Step 3 - Review State strategy submissions.
- State program strategy submissions will delineate the direction and scope of State activities during the forthcoming year and set the basis for the annual program grant.

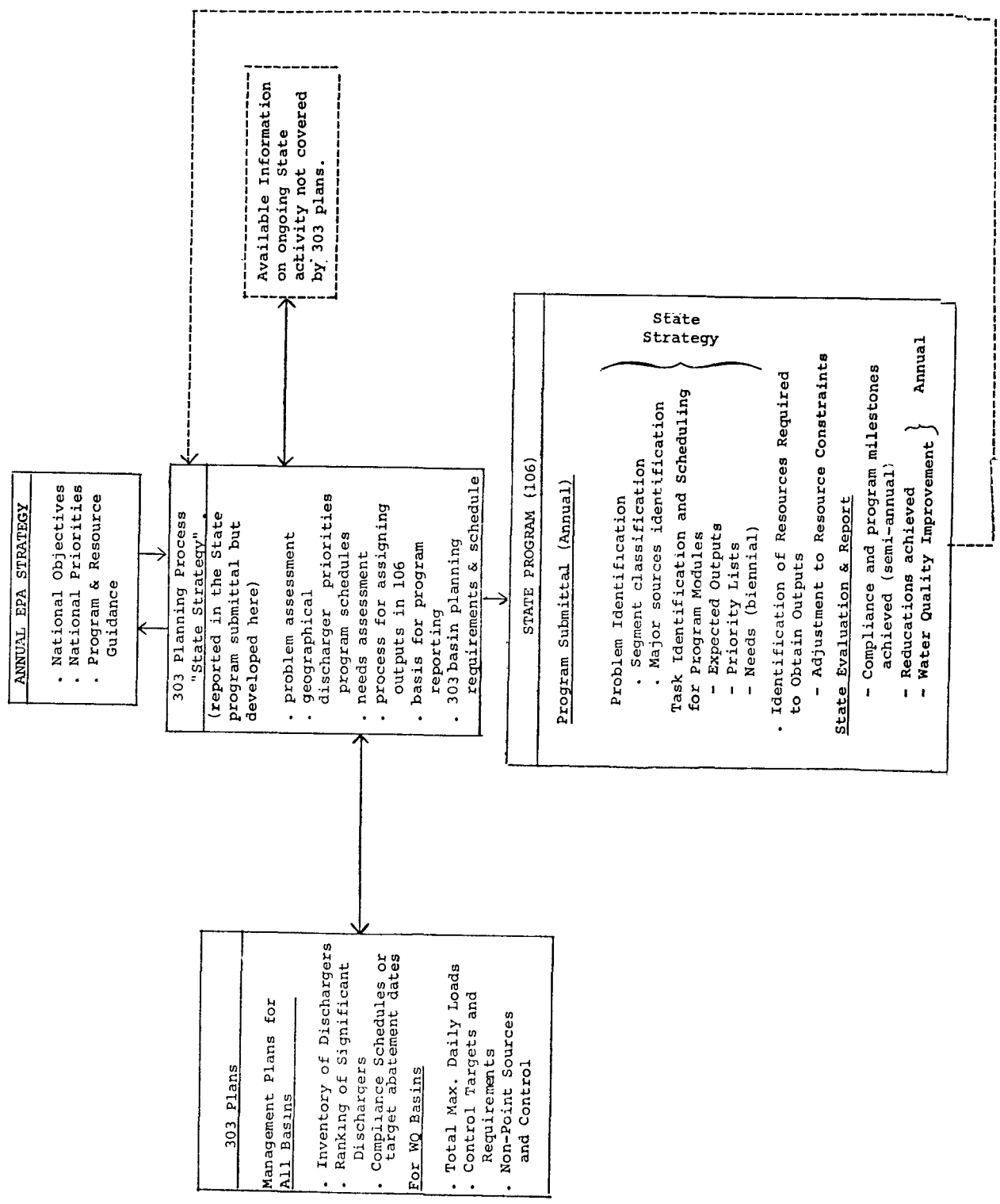
(b) State Program - Once the State strategy has been developed, the annual program is formulated. The program describes the tasks to be done and the schedules to be followed in each program module. (See Appendix for guidance in preparing module submittals.)

- Step 1 - Review State program as submitted.
- Step 2 - Coordinate State program with regional program plans.
- Step 3 - Allocate resources in consonance with the State program as approved.

(c) State Program Reports

- Step 1 - Conduct review of State progress based upon semi-annual reports. Milestone accomplishment will be evaluated semi-annually. The second milestone accomplishment evaluation will be done as part of the review of the next year's program. Resource expenditures will be reviewed annually.
- Step 2 - Assist States in identifying potential or actual problems.
- Step 3 - Assist States and, if necessary, EPA in adjusting resource or program priorities to overcome problems.

STATE/FEDERAL: STRATEGY AND PROGRAM PLAN



APPENDIX C

REQUIREMENTS FOR CONSTRUCTION GRANT APPROVALS

(SUMMARY OF TITLE II REGULATIONS)

	TO 12/31/72	12/31/72-3/1/73	3/1/73-6/30/73	FY 1974	FY 1975
<u>Priority List</u> (Section 303(e) (3) (H))	Adherence to State priority list submitted under Sec. 7, PL-64-660.	Adherence to Sec. 7 priority list until Feb. 17. Subsequent adherence to revised Sec. 7 list to be submitted Feb. 15 in accordance with EPA guidance.	No change in requirement.	Adherence to priority list to be submitted as part of section 106 program submittal.	No change in requirement.
<u>Plans</u> • Section 201 Facility Plan, Part 1, Grant Application	Comply with Planning Requirement of interim (and final where completed) area-wide plans (40 CFR §35.835). In designated areas, compliance with 201 Facility Plan will be required until 208 plan completed.	No change in requirement.	No change in requirement.	Comply with revised planning guidelines which include cost effective consideration developed in §212(2)(c).	Does not apply in 208 areas where plans are completed.
OR					
• Section 208 Areawide Plan in Designated Area	-	-	-	Once 208 plans completed, grant must be in compliance with 208 plan. (§204(a)(1))	No change in requirement.
• Section 303(e) State Continuing Planning Process and Plans.	-	-	-	State must have a continuing planning process. Where 303 plans exist, grant must be in conformance with the plan. (§204(a)(2))	No change in requirement.

	TO 12/31/72	12/31/72-3/1/73	3/1/73-6/30/73	FY 1974	FY 1975
<u>Technical Program Requirements</u>					
..Sewer Infiltration Study (Section 201(g) (3))	-	-	-	Comply with sewer system evaluation study which demonstrates no excessive infiltration. (§201(g)(3))	No change in requirement.
. User Charge and Capital Cost Recovery (Section 204(b) (4))	Grants can be approved for projects where engineer plans specifications are completed and approved by R.A. Also the project must comply with the current EPA user charge guidelines.	No change in requirement.	Comply with user charge and capital cost recovery guidelines. (§204(b)(2))	No change in requirement.	No change in requirement.
. Pretreatment Standards (Section 307(b))	Require that all industries discharging to all municipal systems adhere to standards promulgated within 270 days. Retroactive provision.	No change in requirement.	No change in requirement.	No change in requirement.	No change in requirement.

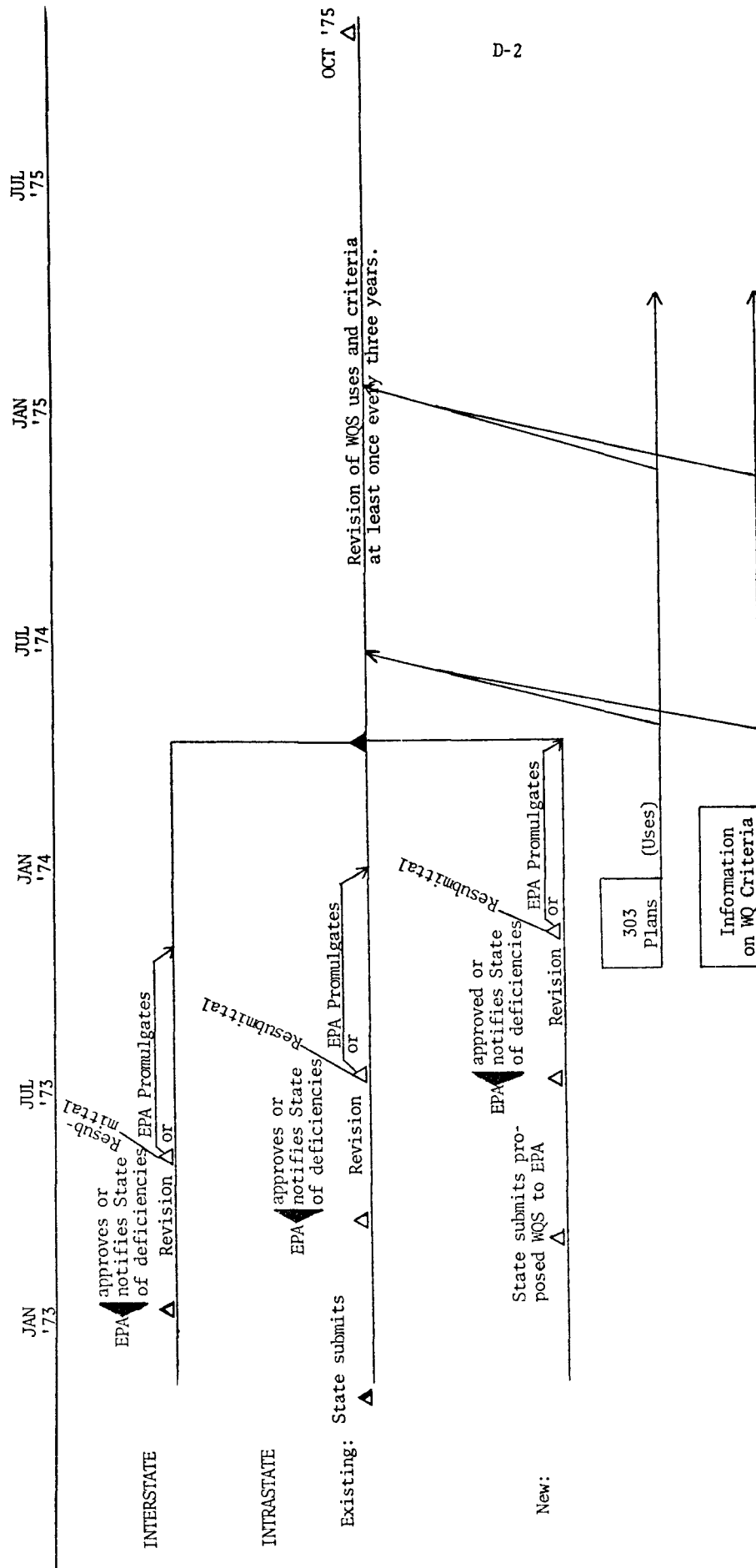
\*All applications need not have a separate Feasibility Study part, rather the feasibility study could be incorporated in the Part 1 Facility Plan or as part of the engineer plans and specifications.

	TO 12/31/72	12/31/72-3/1/73	3/1/73-6/30/73	FY 1974	FY 1975
Secondary Treatment Effluent Limitations (Section 304(d)(1))	Require all plants comply with current secondary treatment requirements.	No change in requirement.	Projects funded must at a minimum comply with secondary treatment limitations (\$301(b)(1)(B)), as of date of publication of interim Title II regs.	No change in requirement.	Where alternatives have been considered in 208, 203 plans minimum will be best practical control technology. (\$301(b)(1)(B))
Other Considerations					
Federal Cost Share (Section 202(a))	Up to 75% share for projects using FY72 funds only. Local community may waive requirement for total share. 75% Federal share on contract grant authority.	Up to 75% share using FY73 and FY74 construction grant authorizations.	No change in requirement.	No change in requirement.	No change in requirement.
NEPA - EIS (Section 511(c))	Construction grant approvals can be considered a major Federal action under NEPA and require a statement. Follow current operating procedures for environmental assessments.	No change in requirement.	No change in requirement.	No change in requirement.	No change in requirement.
Municipal Permits			After April 18, 1973, grant recipient must either obtain permit or demonstrate capability to obtain permit.	No change in requirement.	No change in requirement.

1. WATER QUALITY STANDARDS

Due Date	State Activity	Federal Assistance
(Nov. 18, 1972)	(States submitted their existing water quality standards for intrastate waters.)	
Jan. 18 - April 18, 1973	States revise those water quality standards for interstate waters which EPA has found to be deficient.	Regional personnel have held group and individual consultations with the States on standards revisions.
March 18 - June 18, 1973	States revise those existing water quality standards for intrastate waters which EPA has found to be deficient.	EPA will be available to help in drafting the language in standards, and to appear in water quality standards hearings to give EPA's position.
April 18, 1973	States submit to EPA their proposed water quality standards for intrastate waters for which there have been no previous standards.	
July 18 - Oct. 18, 1973	States revise those water quality standards, proposed for intrastate waters previously without standards, which EPA has found to be deficient.	
Continuing October 18, 1975	States review the uses and criteria of all water quality standards at least once every three years, in light of 303 plans and new criteria information, and submit their proposed revisions to EPA.	EPA will publish water quality criteria information in one year.

# WATER QUALITY STANDARDS





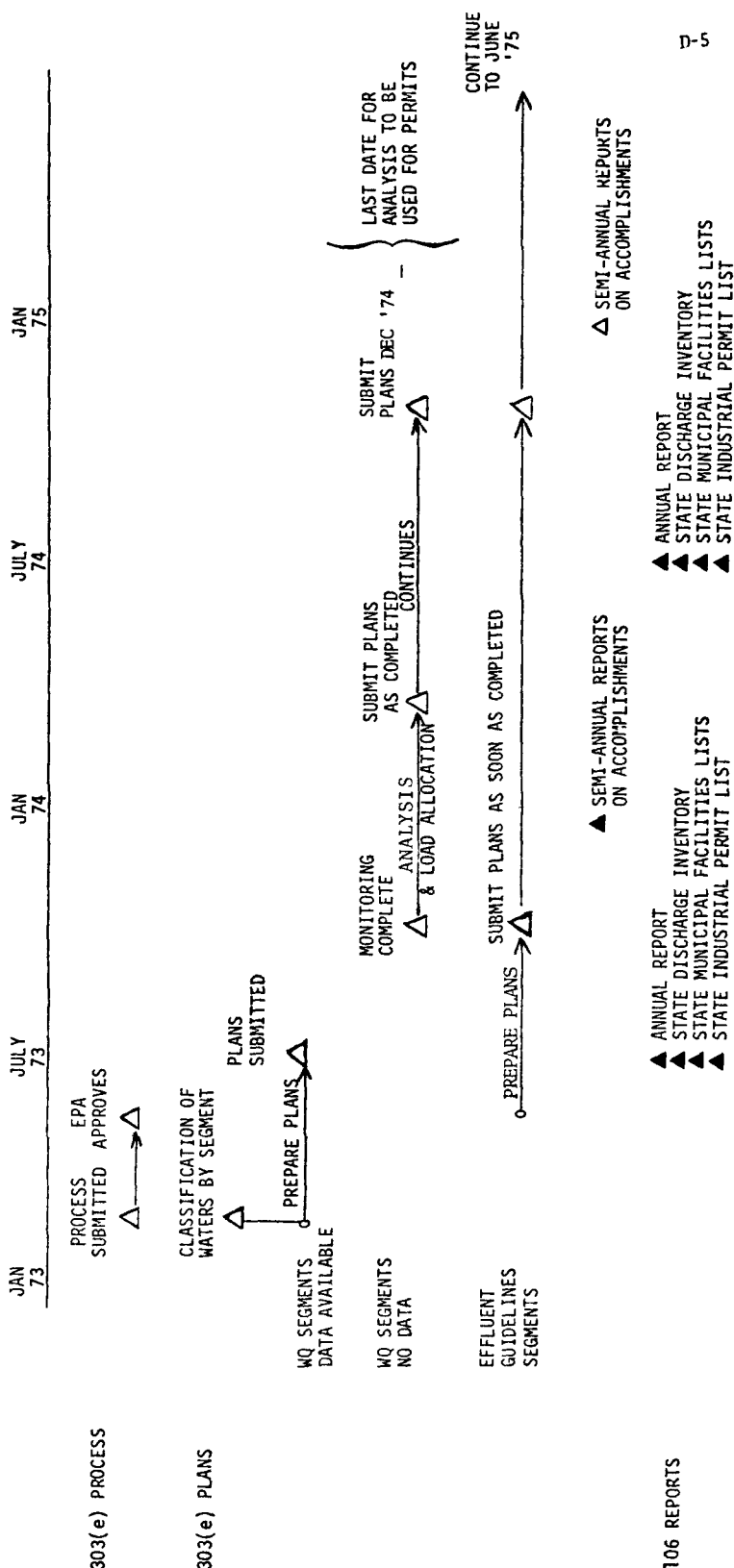
## 2. PLANNING

Due Date	State Activity	Federal Assistance
FEBRUARY 18, 1973	<p><u>303(e)</u></p> <p>States submit their proposed continuing planning process. This includes a schedule for plan preparation during FY 73-75. Attached will be a classification of all State waters into basins, of all basins into segments, and a preliminary classification based on existing data of all segments into effluent guidelines limited segments and water quality limited segments.</p>	<p>EPA will provide model process submittal.</p> <p>EPA supplies PDI information and available BPI guidance and secondary treatment values.</p>
CONTINUING JUNE 30, 1975	<p><u>303(e)</u></p> <p>States prepare 303 plans for basins according to the schedule laid out in their planning process submission. Each basin plan will include management-type information for all segments, and information on maximum daily loads and load allocation for water quality limited segments. Each basin plan will also incorporate any plans developed for smaller areas within that basin.</p>	<p>EPA will make available a model 303 plan; its work to date on priority accomplishment basins; and technical assistance. Federal Government will supply increased funding assistance in FY 74 for State programs (\$40 million vs. \$20 million for FY73), part of which will go to the planning function.</p>
JUNE 15, 1973	<p><u>106</u></p> <p>States submit to EPA a report on their annual State Strategy including an inventory of dischargers, two lists that indicate the Municipal facilities for which States intend to process permits and award grants for the next 12 months, a similar list of intended industrial permittees.</p>	

PLANNING

Due Date	State Activity	Federal Assistance
CONTINUING	<p align="center"><u>207/201</u></p> <p>States should encourage the completion of 18 CFR area plans; these can be used for projects which require a 201 water quality management plan before grant approval. Review should be made of the State Municipal Facilities Priority List, to ensure that communities' projects are in proper sequence and that 201 plans are available for projects of high priority.</p>	Federal financial assistance as step 1 of a construction grant: 75%
JANUARY 15, 1974	<p align="center"><u>303</u></p> <p>States submit to EPA their semi-annual progress report on the 303 planning process.</p>	
JUNE 15, 1974	<p align="center"><u>106</u></p> <p>States submit to EPA their annual State Strategy, accompanied by their revised State Discharge, State Municipal Facilities, State Industrial Permit, and State Needs Lists.</p>	

# PLANNING

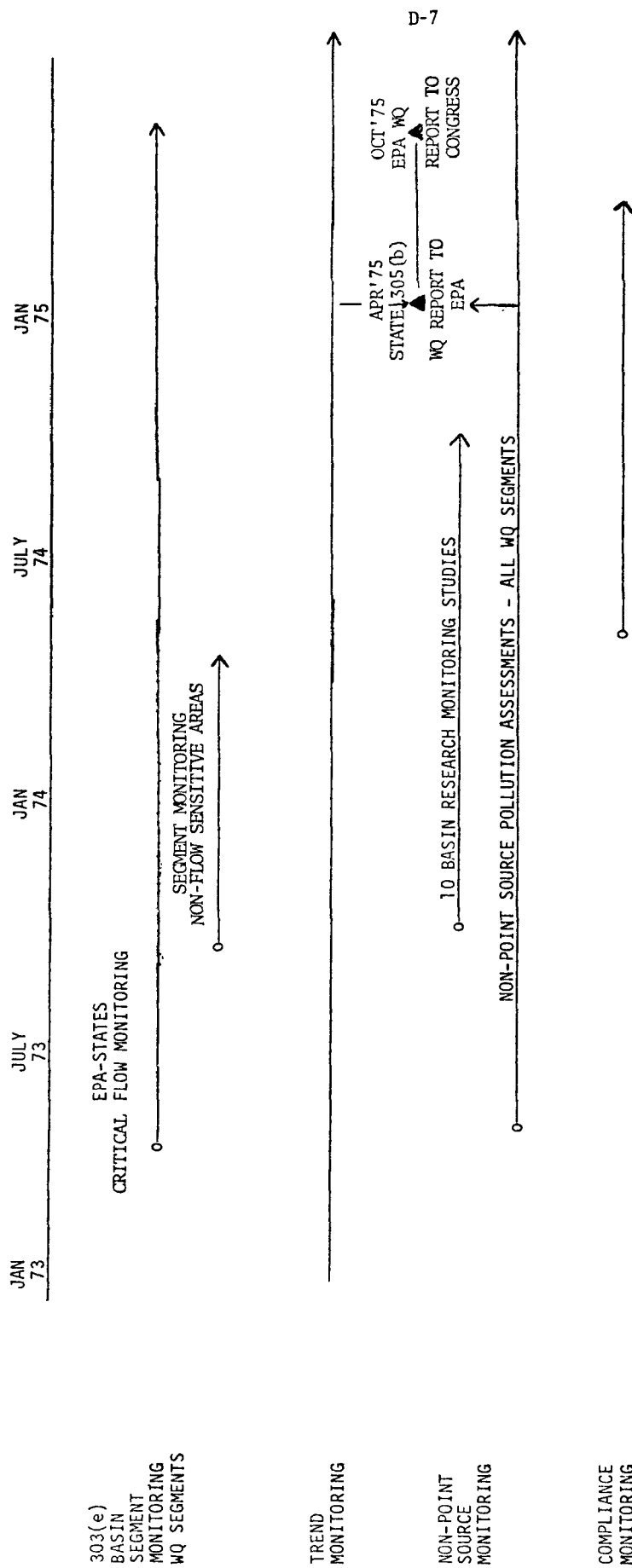


(NOTE: EPA IDENTIFICATION OF POLLUTANTS FOR WHICH TO CALCULATE MAXIMUM DAILY LOAD, AND REQUIREMENT TO ESTIMATE MAXIMUM DAILY LOAD ON EFFLUENT LIMITATION 4 SEGMENTS, NOT INCLUDED IN ABOVE PLAN.)

### 3. MONITORING

Due Date	State Activity	Federal Assistance
<p>CONTINUING (OR TO BEGIN IMMEDIATELY)</p>	<p>Ambient monitoring has three main purposes, which should be considered in the following priority:</p> <ol style="list-style-type: none"> <li>1) basin segment monitoring, in water quality limited segments with inadequate data, to develop the information necessary for load allocations.</li> <li>2) trend monitoring, to identify areas of progress and continuing problems, for the State water quality assessment required in each section 106 program submittal, and for the section 305(b) report to EPA which will be part of the amplified initial submittal for FY76.</li> <li>3) non-point source pollution assessment monitoring, to provide a quantitative measurement of the relative impact of the non-point source and point source pollution. Such an assessment will be part of the section 305(b) report.</li> </ol>	<p><u>Funding</u></p> <p>State program grants for monitoring systems.</p> <p><u>Technical Assistance</u></p> <p>Use of STORET and NPDB information systems.</p> <p>Regional and Headquarters assistance for design and operation of the State system.</p> <p>Laboratory methods and quality control procedures.</p> <p><u>Direct Assistance</u></p> <p>Selected assistance to State monitoring surveys.</p> <p>Ten EPA non-point source research basin monitoring surveys.</p>
<p>JUNE 1974</p>	<p>Effluent monitoring for discharger compliance under section 308 should begin after NPDES permits are issued. This should be regarded as having 4th priority for the present.</p>	

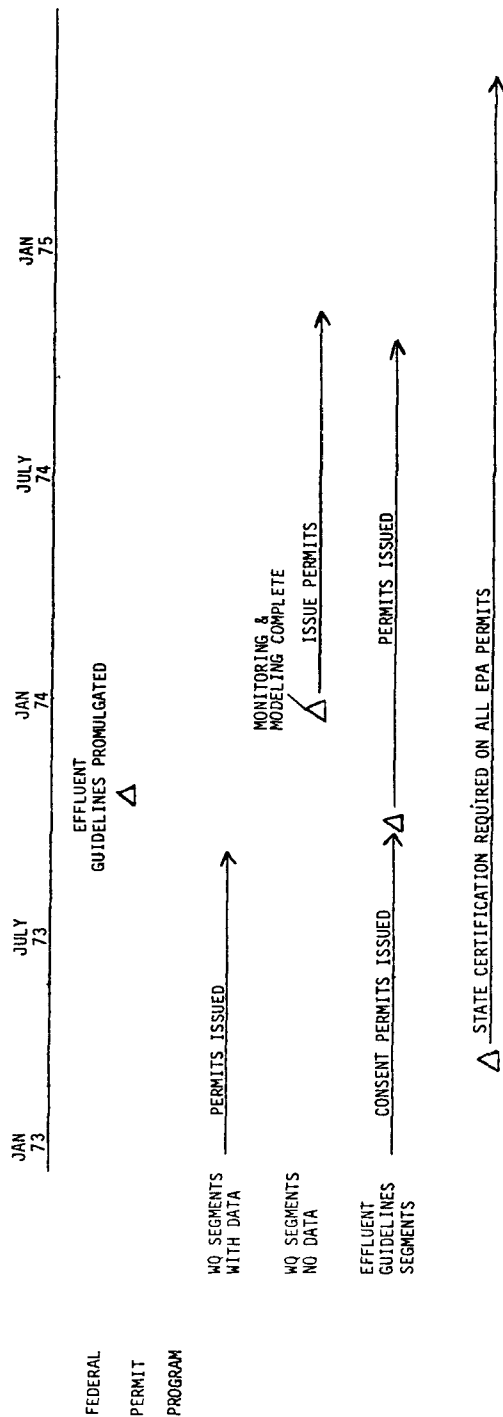
# MONITORING



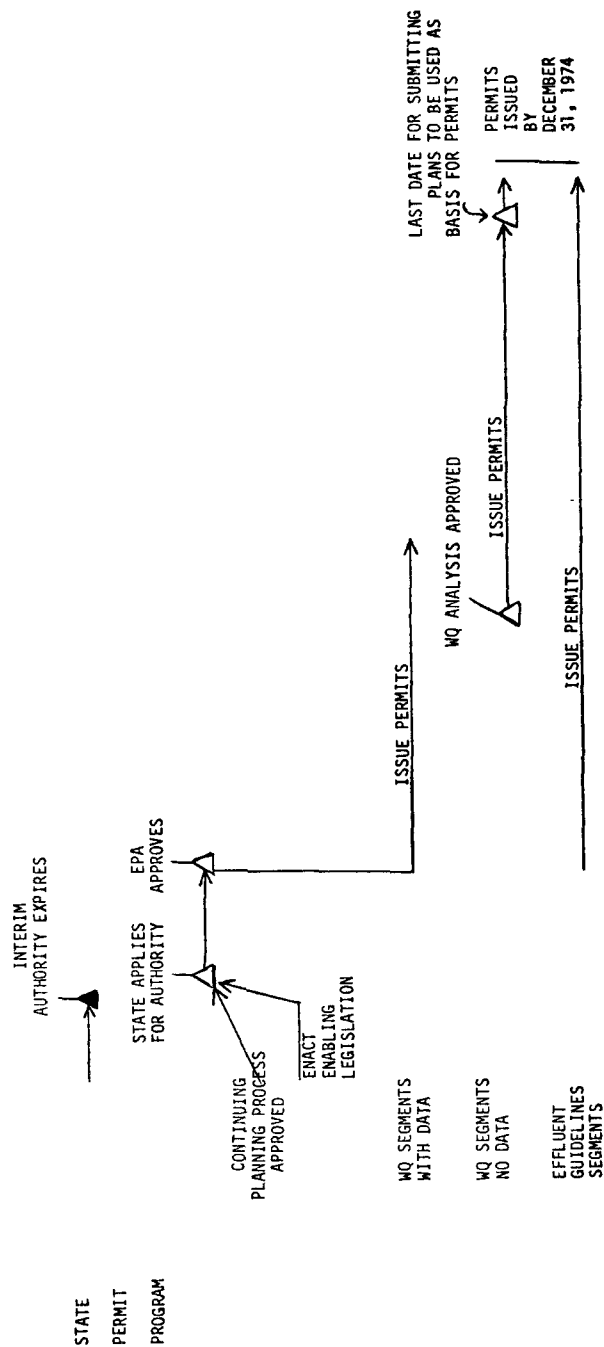
#### 4. PERMITS

Due Date	State Activity	Federal Assistance
PRIOR TO MARCH 15, 1973	State application for interim permit issuance authority	Review and approve or disapprove applications. If approved, administratively transfer permit applications and supporting documentation to the States.
AFTER DECEMBER 18, 1972	State applications for approval to assume Federal permit programs.	Review and approve or disapprove applications. EPA has 90 days to conduct this review.
PRIOR TO MARCH 15, 1973	Expiration of interim State authority on March 15. States can issue permits before this date.	EPA review and approval of all State permits.
AFTER MARCH 15, 1973	States with approved programs can issue permits	EPA review of permits for those categories and classes for which it has not waived its right of review.
AFTER APRIL 3, 1973	State certification, unless waived by the State, required on all Federally issued permits.	
DECEMBER 31, 1974	Permits should be issued to all significant dischargers by States/EPA.	

# PERMITS



D-9



5. ENFORCEMENT

Due Date	State Activity	Federal Assistance
Continuing	States enforce against dischargers of pollutants which violate State laws and any permits issued thereunder.	
With application for NPDES permit program	States must demonstrate to EPA that they have (1) adequate enforcement authority under State law, and (2) the capability for the receipt, evaluation, and investigatory follow-up for possible enforcement or remedial action of all indices and reports required of permittees.	
Continuing (after assumption of permit program)	<p>States begin enforcement immediately against dischargers which qualify but have failed to apply for an NPDES permit.</p> <p>As the first milestone dates are reached, and particularly after compliance monitoring activity in summer 1974, States enforce against dischargers violating the terms of NPDES permits. These will include both permits issued originally by EPA with State certification, and permits issued by States.</p>	<p>EPA will provide advice based on its enforcement experience prior to State assumption of the permit program.</p> <p>Federal Government will increase funds in FY74 for State programs, part of which will go to the enforcement function.</p> <p>EPA will maintain a back-up enforcement capability in the Regions.</p>

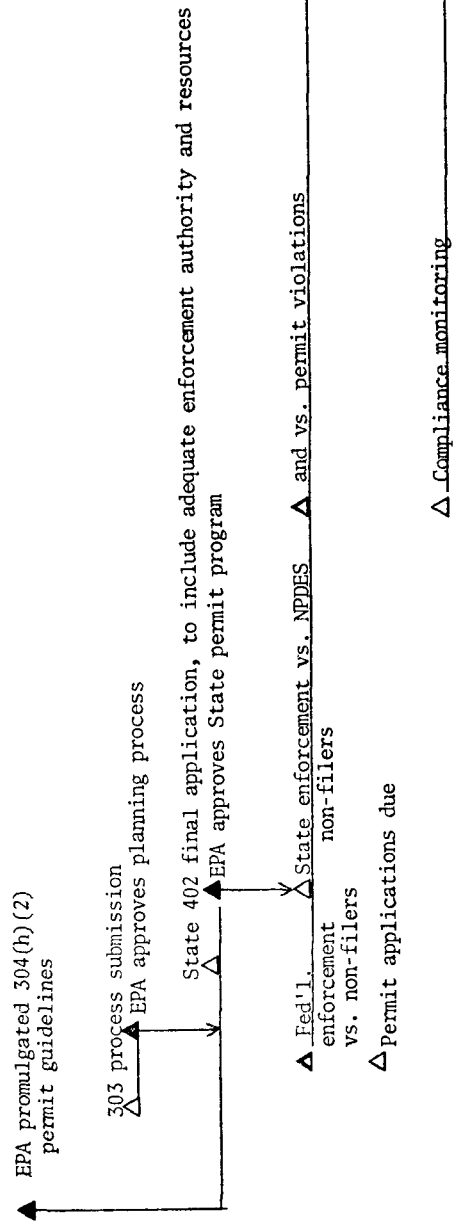


ENFORCEMENT

JAN '73	JUL '73	JAN '74	JUL '74	JAN '75	JUL '75
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Δ Enforcement vs. Violators  
under existing State laws

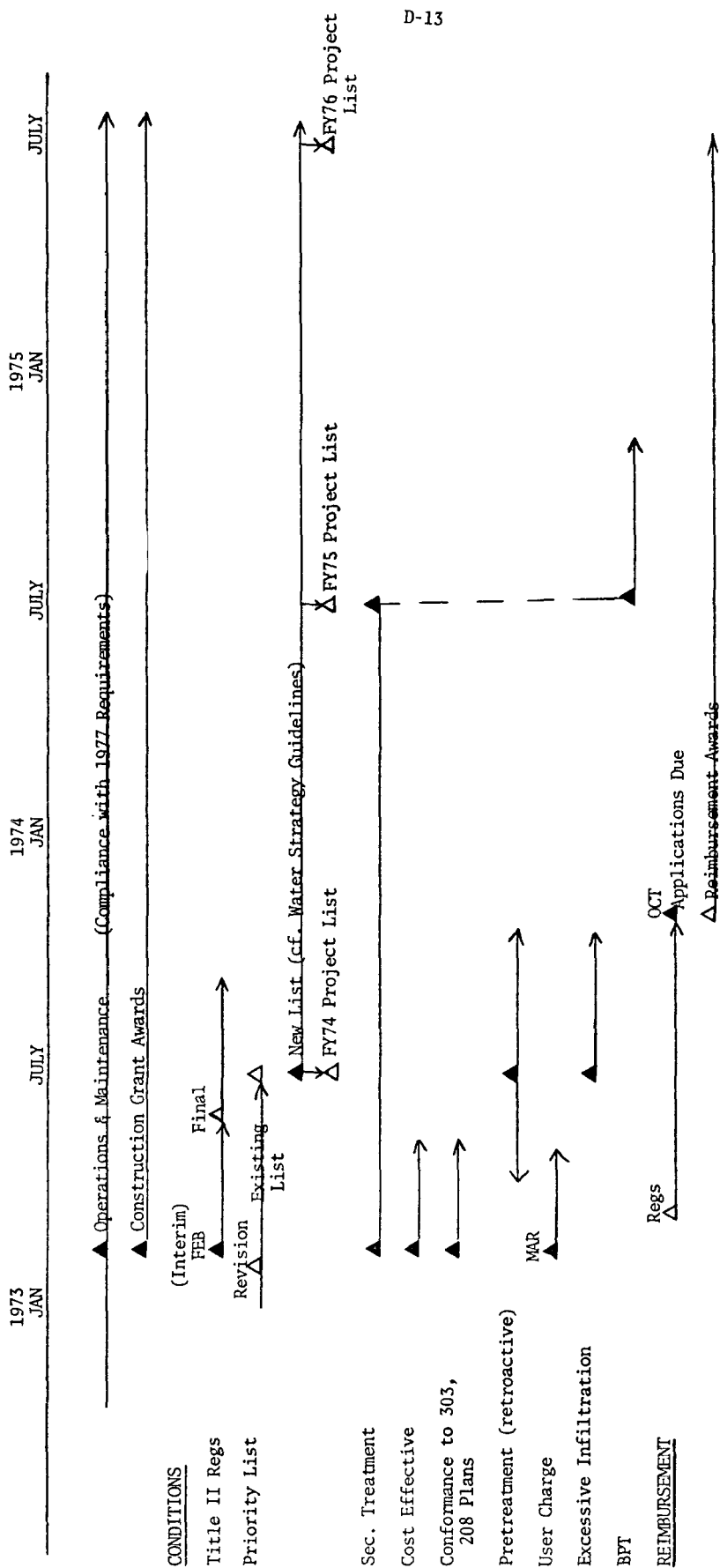
NPDES



6. MUNICIPAL PROGRAMS

Due Date	State Activity	Federal Assistance
CONTINUING	The operations and maintenance program, through inspection visits and training, will be used to bring plants currently in operation up to 1977 standards, insofar as this does not involve major capital investment.	EPA technical support.
FEBRUARY 20, 1973	States will assist in construction grant awards by detailed review and certification of engineering reports, studies, and construction plans and specifications.  See Appendix C and strategy paper for grant conditions.	\$5 billion allotted for FY73-74.  Federal share increased to 75%.  EPA participation will emphasize pre-application and design conferences, and cost-effective and environmental considerations.
JUNE 30, 1973	In their program submittals to EPA Regional Offices, States include a new State Municipal Facilities List for construction grants (reflecting the guidance contained in the water strategy paper), and a list of projects to be funded in FY74.	Review and approval.
OCTOBER 18, 1973	Reimbursement applications due to EPA Regional Offices.	\$1.9 billion in Federal funds.
JANUARY 1, 1974		EPA reallocates uncommitted FY73 funds to the States.
JUNE 30, 1974		FY75 allocation to the States.

# MUNICIPAL PROGRAMS



7. NON-POINT SOURCES  
(INCLUDING EUTROPHICATION AND GROUNDWATER)

Due Date	State Activity	Federal Assistance
CONTINUING	States which presently have NPS programs will continue their efforts.	
FEBRUARY 1973	<p>Each State's submission of its continuing planning process will provide for plans which:</p> <ol style="list-style-type: none"> <li>1) Identify and evaluate NPS pollution in the State.</li> <li>2) Determine the extent of eutrophication in State waters and the relative point-non-point contributions to this.</li> <li>3) Set out control strategies in those States where well disposal is practiced.</li> </ol>	<p>NPS</p> <p>EPA will:</p> <ol style="list-style-type: none"> <li>1. Publish information by October 1973 on processes and procedures of control and identification for NPS.</li> <li>2. Supply model legislation (e.g., the Model Sedimentation Control Law).</li> <li>3. Begin intensive monitoring and selective demonstration programs in ten severely NPS-polluted basins.</li> <li>4. Increase funding in FY74 for State Programs (\$40M vs. \$20M for FY73), part of which will go to NPS control.</li> <li>5. Establish liaison with other Federal Agencies whose policies affect NPS pollution.</li> <li>6. Conduct research on the formation and effects of NPS, and on technological and structural controls.</li> </ol>
AFTER FEBRUARY 1973	States implement NPS identification and evaluation, eutrophication evaluation, and control of well disposal.	
JUNE 15, 1973	<p>As part of the FY74 State Program submittal, States will provide the following:</p> <ol style="list-style-type: none"> <li>1) An indication of waters where NPS pollution will make attainment of WQS difficult.</li> <li>2) An outline of the major sources of NPS pollution.</li> <li>3) An identification of the range of available institutional management actions to control NPS.</li> </ol>	

NON-POINT SOURCES

Due Date	State Activity	Federal Assistance
FY 1974	States determine the relative point source, non-point contribution to the State eutrophication problem and begin dealing with the point source problems through planning, permitting, and construction grants activities.	<u>EUTROPHICATION</u> EPA will: 1. Provide supplementary data and technical assistance through the National Eutrophication Survey and Research Project. 2. Provide cost optimization guidance for point source controls.
JUNE 15, 1974	As part of the FY75 State Program submittal, States will include a program, for FY75 initiation, of the available NPS controls identified in the FY74 submittal, and will consider their application to eutrophication problems.	3. Provide 304(c) data on NPS identification methods, and controls as these relate to eutrophication. 4. Provide financial assistance for identification and control efforts.
FY 1975	Localities which have approved Areawide Waste Treatment Management Authorities under section 208 should make provision for NPS control measures in their planning process.	<u>GROUNDWATER</u> EPA will: 1. Do research on the development and effects of pollution in ground-water systems, cost-effective techniques for monitoring ground-water quality, and criteria for protection and use of groundwater supplies.
APRIL 15, 1975	As part of the initial FY76 State Program submittal, States will provide a quantitative analysis of: 1) The various types of NPS pollution. 2) Relative contributions from each type (both in terms of gross amount and effect). 3) The geographical distribution of the sources. 4) Their areas of major effect.	

NON-POINT SOURCES


Due Date	State Activity	Federal Assistance
JUNE 15, 1975	<p>As part of the final FY76 State Program submittal, States will include a plan for the FY76 implementation of a full, statewide program of NPS prevention, control and enforcement, including prevention of eutrophication through NPS controls. (A statewide NPS program may be effected by the extension of the NPS portions of the 303 planning process to the entire State--see section 208(b)(4).)</p>	

NON-POINT SOURCE (INCLUDING EUTROPHICATION & GROUNDWATER)

	1973 JAN	JULY	1974 JAN	JULY	1975 JAN	JULY
303 CONTINUING PLANNING PROCESS	▲ Initial Submission					
106 STATE PROGRAM PROCESS		▲ FY74 Submittal -NPS waters -Major sources -Available institutional controls		▲ FY75 Submittal -Available controls implementation	Initial FY76 Submittal ▲ -Quantitative analysis	Final FY76 Submittal ▲ -Full NPS program
NPS PROGRAM	△ Continuing State Activities			▲ Available Controls		▲ Full NPS Program

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U.S. Environmental Protection Agency  
GLNPO Library Collection (PL-12J)   
77 West Jackson Boulevard,  
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