



*FINAL REPORT
TO THE CONGRESS
FEBRUARY 10, 1975*

REVISED MAY 6, 1975

**COST ESTIMATES FOR
CONSTRUCTION OF PUBLICLY-
OWNED WASTEWATER
TREATMENT FACILITIES**

1974 "NEEDS" SURVEY

**PREPARED PURSUANT TO
SECTIONS 205 AND 516, PUBLIC LAW 92-500
AS AMENDED BY PUBLIC LAW 93-243**

**ENVIRONMENTAL PROTECTION AGENCY
OF WATER PROGRAM OPERATIONS
CAPITAL CONSTRUCTION DIVISION
WASHINGTON, D.C. 20460**

CONTENTS

	Preface.....	Page ii
I.	Introduction.....	Page 1
II.	Explanation of the Survey.....	Page 2
III.	Results of the Survey.....	Page 3
IV.	Comparison of Results of the 1973 and 1974 Surveys....	Page 5
V.	Quality of Facility Estimates.....	Page 5
VI.	Cost of the Survey.....	Page 9
VII.	Conclusions and Recommendations.....	Page 9
VIII.	Tables of Reported Needs.....	Page 11
	Appendix A. Survey Methodology.....	Page A-1
	Appendix B. Summary Table of EPA Independent Assessments.....	Page B-1

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EDISON, N. J. 08817

PREFACE TO THE REVISED REPORT

The series of tables contained in the February 10, 1975, Final Report to the Congress, which presented the cost estimates from the 1974 Municipal Needs Survey, have been recently revised. Although the text does not change, the Report is being reissued to reflect the impact of the revisions on the data in the chart on page 4, in the tables in Section VIII, and in the Appendix B table.

The revisions were necessitated after work with the individual facility files indicated some discrepancies between the original input data and its summarization in the Final Report tables. The initial cost estimates for the State of Colorado and American Samoa were incorrectly converted into the computer format. The Colorado totals for Categories II and IVB and the Category IVB cost total for American Samoa were understated. In addition to these cost discrepancies, the 1990 population figures for Puerto Rico, the Virgin Islands and American Samoa were inadvertently reported as zero in the final tables and have been corrected.

Although the changes do not have a significant influence on the National totals, there is an obvious impact on individual State totals, and it is recommended that any use of the 1974 Survey data should be made on the basis of the revised tables.

FINAL REPORT OF JOINT STATE-EPA 1974 SURVEY OF ESTIMATES OF COSTS OF CONSTRUCTION OF PUBLICLY-OWNED WASTE TREATMENT WORKS

I. INTRODUCTION

This final report presents State and EPA estimates of the cost of construction of publicly-owned treatment works needed to meet the 1983 goals of the Federal Water Pollution Control Act Amendments (FWPCA) of 1972. The report is submitted in compliance with Sections 516(b)(2) and 205(a) of the FWPCA, as further amended by Public Law 93-243. These provisions of the law have the dual purpose of obtaining a comprehensive estimate of the total cost of meeting the goals of the FWPCA, and of estimating these costs State-by-State as a possible basis for the allocation of construction grant funds authorized after Fiscal Year 1975.

Public Law 93-243 required EPA to obtain these estimates by a Nation-wide survey utilizing a modified version of the survey questionnaire prepared for the 1973 "Needs" Survey. The 1973 Survey, however, was restricted to documenting needs necessary to meet only the 1977 requirements of the FWPCA, therefore to comply with the legislative purpose of obtaining a comprehensive estimate of all the costs of meeting the 1983 goals of the FWPCA, the guidelines for the 1974 Survey were far less constraining. A Preliminary Report presented EPA's initial findings from this Survey to the Congress on September 3, 1974, and expressed the Agency's serious reservations about using the estimates for future allocation of construction funds among the States. These reservations were founded on the Agency belief: (1) that the total estimates probably overstated the cost of meeting the 1983 goals of the FWPCA - with the cost of abating pollution from stormwater overflows being of particular concern; and (2) that the comparability of State data was inadequate because of major variations both in the criteria and methodology used by the States in making their estimates and in adhering to Agency Survey guidelines. Also the Preliminary Report findings were based on a limited review of the Survey questionnaires and an evaluation of State reports on the Survey.

Following the September Preliminary Report, the Agency concentrated on completing a detailed review of all State estimates. There were three basic reasons for this more comprehensive review. The first was to identify and correct inadvertent clerical reporting inaccuracies. The second was to further evaluate State cost estimates that appeared to be excessive or otherwise deficient from the standpoint of technical validity. The third purpose was to consider the possible use of the estimates for allocation purposes and to identify data anomalies that would treat any State unfairly. As a result of these review actions EPA has developed a separate set of data which it considers to be a more realistic portrayal of the National facility requirements.

This Report also covers the Agency's analysis of the process of identifying needs and developing a formula for allocating funds to the States. The needs identification process is evaluated in terms of how this Survey was conducted, and its resultant impact on the estimates contained in the report.

II. EXPLANATION OF THE SURVEY

The 1974 Survey asked the States to report their cost estimates in the five major categories used in the 1973 Survey plus one new one for treatment and/or control of stormwaters. Two of these categories were divided for the 1974 Survey. The categories are briefly described below:

Category I - This includes costs for facilities which would provide a legally required level of "secondary treatment," or "best practicable wastewater treatment technology (BPWTT)." For the purpose of the Survey, BPWTT and secondary treatment were to be considered synonymous.

Category II - Costs reported in this category are for treatment facilities that must achieve more stringent levels of treatment. This requirement exists where water quality standards require removal of such pollutants as phosphorous, ammonia, nitrates, or organic substances.

Category IIIA - This includes costs for correction of sewer system infiltration/inflow problems. Costs could also be reported for a preliminary sewer system analysis and for the more detailed Sewer System Evaluation Survey.

Category IIIB - Requirements for replacement and/or major rehabilitation of existing sewage collection systems are reported in this category. Costs were to be reported if the corrective actions were necessary to the total integrity of the system. Major rehabilitation is considered extensive repair of existing sewers beyond the scope of normal maintenance programs.

Category IVA - This category consists of costs for construction of collector sewer systems designed to correct violations caused by raw discharges, seepage to waters from septic tanks and the like, and/or to comply with Federal, State or local actions.

Category IVB - This category consists of costs of new interceptor sewers and transmission pumping stations necessary for the bulk transport of wastewaters.

Category V - Costs reported for this category are to prevent periodic bypassing of untreated wastes from combined sewers to an extent violating water quality standards or effluent limitations. It does not include treatment and/or control of stormwaters.

Category VI - States were also asked to make a rough cost estimate in a sixth category, "Treatment and/or Control of Stormwaters." This includes the costs of abating pollution from stormwater run-off channelled through sewers and other conveyances used only for such run-off. The costs of abating pollution from stormwater channelled through combined sewers which also carry sewage are included in Category V. Category VI was added so the Survey would provide an estimate of all eligible facility costs, as explicitly required by Public Law 93-243.

The estimates were to be reported in June 1973 dollars, and are therefore comparable to the costs in the 1973 Survey. Estimates were also to be based on the projected 1990 population as in the 1973 Survey.

The 1974 Survey was initiated January 31, 1974, when a letter with a general outline of how the survey would be conducted was distributed to each State along with a copy of the questionnaire.

The States assumed responsibility for seeing that the Survey questionnaires were completed. They had the option, as in 1973, of completing a Survey questionnaire for each facility themselves, or forwarding a questionnaire to each local sewerage authority for completion. A more detailed description of how the Survey was conducted is included as Appendix A.

III. RESULTS OF THE SURVEY

The total of all State estimates and their comparison with the 1973 totals is summarized by category in the table below.

There are three sets of figures for 1974: (1) the original State data as reported in the September Preliminary Report; (2) the State figures after correcting inadvertent clerical reporting inaccuracies; and (3) the set of estimates resulting from Agency adjustments based on evaluation of technical validity of cost estimates and identification of data anomalies that would unfairly treat any State if the estimates are used in a grant allocation formula.

Included in the final EPA adjusted 1974 figures is \$46 billion for Categories I, II and IVB that reflect the costs for the traditional Water Quality Program of treatment plants and interceptors. An additional \$61 billion is included for Categories III, IVA and V. The State estimates for the new Category VI (treatment and/or control of stormwaters) are \$235 billion. Total costs for all categories reported in the Survey therefore, come to \$342 billion.

SUMMARY TABLE OF ESTIMATES

A. Totals for all Categories:

CATEGORY

(Millions of 1973 Dollars)

		1974 Survey				
		(A) State Preliminary Data	(B) State Corrected Data	(C) EPA Adjusted Data	(D) 1973 Survey Data	Change (D to C)
I	Secondary Treatment	11,679	12,628	12,629	16,639	-4,010
II	More Stringent Treatment Required by Water Quality	21,311	20,330	15,776	5,650	+10,126
IIIA	Correction of Sewer Infiltration/Inflow	5,355	5,348	5,287	691	+4,596
IIIB	Major Sewer Rehabilitation	7,070	7,330	7,287	-----	+7,287
IVA	Collector Sewers	23,090	24,583	17,458	10,825	+6,633
IVB	Interceptor Sewers	19,932	19,758	17,923	13,621	+4,302
V	Correction of Combined Sewer Overflows	26,070	31,192	31,076	12,697	+18,379
VI	Treatment and/or Control of Stormwaters	235,006	235,006	235,006	-----	+235,006
TOTALS		349,613	356,177	342,442	60,123	+282,319
B. Totals for Categories I, II and IVB Combined:		52,922	52,716	46,328	35,910	+10,418

IV. COMPARISON OF RESULTS OF THE 1973 AND 1974 SURVEYS

The 1974 Agency adjusted estimates reflect costs for the traditional Water Quality Program of treatment plants and interceptors (Categories I, II and IVB) that are \$10 billion greater than the \$36 billion reported in the 1973 Survey. The costs reported in 1974 for Categories I-V are \$47 billion greater than the \$60 billion reported in the 1973 Survey. The primary reasons for the increases are the elimination in 1974 of most of the reporting constraints included in the 1973 Survey, the general expanded scope of the Survey to accommodate reporting of all costs for all treatment facilities that the States felt were necessary in their implementation of the FWPCA, and to some degree a better job of identifying and estimating State facility requirements.

One major impact of the expanded scope of the Survey was that estimates for treatment plants and interceptors (Categories I, II and IVB) could be based on water quality standards anticipated by the States for the future and were not limited to those already established in the past, as in 1973. One result of this is evidenced in the dramatic shift from secondary treatment (Category I) to plants requiring more stringent levels of treatment (Category II). Estimates for Category III could be reported for major rehabilitation of sewer systems as well as correction of infiltration and inflow. Major rehabilitation costs of \$7 billion were reported which were not eligible in the earlier Survey. These estimates did not have to be documented with an analysis and detailed evaluation of the problem as in 1973. Estimates reported for correction of combined sewer overflows in Category V were not limited in 1974 by the previous requirement that they be based on an evaluation of the most economical and/or effective alternative. A second major result of the expanded scope of the Survey was the State identification of \$235 billion for the new "Treatment and/or Control of Stormwaters" Category.

V. QUALITY OF FACILITY ESTIMATES

A. General Factors Affecting Reliability and Comparability

The reliability of national wastewater treatment need cost estimates and the State-to-State comparability of these estimates are influenced primarily by three factors:

(1) The extent to which the requirements for abatement actions have been clearly defined through National, State and local plans, rules, regulations, standards, etc., determines whether abatement action decisions can be made, as well as the accuracy with which corrective action costs can be estimated.

(2) The state-of-the-art in abatement technology also determines how accurately cost estimates can be made and whether they can be validated once they have been made.

(3) The synthesis of all relevant factors through a planning process that addresses project feasibility and practicability is essential before realistic decisions and estimates can be made on any abatement action.

The net impact of these three factors is that if an abatement program area is well defined - where decisions are clear as to the specific requirement for an abatement action, and as to the best and most cost effective solution - then cost estimates can be made that are quite accurate and should not vary from year to year. If abatement requirements are unclear and alternatives numerous - estimates will be poor and may fluctuate widely each time they are made. Similarly, if the technology for an abatement solution is unclear - where there are many options and little experience with any of the options - then estimates may have only limited value. In such situations, estimates made by different parties for correcting the same type abatement problem may also fluctuate widely both at a given point in time, and from year to year. Even if program requirements and abatement technology are well defined there is no assurance of high quality estimates unless proper consideration is given to such planning elements as alternative waste management techniques and cost-effectiveness studies.

The ability to validate estimates bears a direct relationship to the ability to make them.

B. 1974 Survey Reliability

In terms of the three factors discussed in paragraph A that influence the facility cost estimating process, the 1974 Survey data has varying levels of reliability between the six cost categories.

(1) Program Definition:

The Survey guidelines were designed to meet the legislative requirement that all facility costs required in implementing the Act be reported. The problem in using such estimates is that they are based on implementation strategies that are in varying stages of development. Because of the inherent flexibility of abatement choices, the States could not be consistent or uniform in reporting their needs in situations where goals were not well-defined, or where there was no recognized "best method" for a solution. In those cases, when the range of choices available for abatement actions relating to a given pollution problem were wide, and when the legal requirements for correction offered significant latitude, there was considerable unevenness in the impact of the diverse approaches taken by States in determining what corrective abatement actions were necessary and in estimating the cost of such actions.

This situation exists in relation to costs reported in Categories III, V and VI, and makes meaningful State-by-State comparisons extremely difficult. Policy decisions in the Category VI, stormwater, area are in a particularly embryonic state of development and made cost comparisons impossible.

There were cost comparison problems even in Categories I, II, and IV, because under the Survey guidance, States were permitted to project such corrective actions that would solve known or anticipated problems in achieving the 1983 goals of the Act. Since the Water Quality Standards to meet such objectives will not be established until about 1978 by joint State and EPA concurrence, it was necessary for the various States to make an assumption as to what standards would ultimately be established. The assumed standards were then utilized in establishing the 1983 level of treatment for each plant, and costs estimated accordingly. Some States based their projections on the same standards utilized in the 1973 Survey, while others assumed that major increases would be required in the stringency of standards and estimated very high levels of treatment.

(2) Cost Estimating Technology:

The ability to make reasonably accurate engineering cost estimates and to validate them exists for Category I, II, and IV abatement needs, but is at a low state of refinement for Category III, V, and VI needs. The EPA guidelines provided to the States for guidance in making estimates in Categories III, V, and VI were admittedly of minimal assistance and had limited value in making detailed engineering estimates and State-by-State comparisons. No cost estimating guidelines could be provided to the States for Category IIIB because of the great variance in case-by-case factors in this area.

(3) Facilities Planning:

As was the case with program definition and estimating technology, the facilities planning element was more effective in the production of quality estimates in Categories I, II and IV needs. This is to be expected as those Categories encompass the facilities that have received the most funding under the traditional water quality program and have been evaluated more carefully because of their priority status. Much planning has already occurred in this area and factors affecting decisions have been relatively well defined. This is true however, only as it relates to planning for facilities that are designed for the 1977 requirements of the Act. For the most part, States that made estimates based on projected 1983 requirements that were significantly more stringent than the 1977 effluent limitations were doing so for the first time, and generally made the estimates without benefit of formal planning.

Planning in Categories III and V can only be considered effective for the portion of the estimates for which formal analyses have been completed. Virtually no completed planning was available for Category VI estimates. The State data revealed an incidence of high per capita flows that is an indicator of a national planning defect in this area. It is indicative that insufficient consideration has been given to the control and reduction of flow impacting the sizing of treatment facilities.

C. Agency Assessments

The unevenness in the estimates that is described in the preceeding section resulted primarily from the wide differences in approach taken by the individual States in projecting the level of effluent limitations they would impose within their State to meet the 1983 goals of the Act. Public Law 93-243 allows the States to project any level of treatment they think necessary. However, the amount of distortion from those few States taking an extremely stringent approach appeared sufficiently large to have a potential adverse impact on the development of an equitable State allocation formula. A dilemma between following the dictates of the Act and providing fair treatment to all States was thus created.

The Agency decided that a responsive but fair allocation formula was of primary concern and initiated a review of State estimates to identify those costs that might create abnormal distortions. Because the States were in fact following the Act in terms of projecting their long-range effluent requirements, the Agency review of necessity had to be somewhat subjective. For this reason the adjusted figures may not reflect a clear picture of an individual State's total long-range needs but are considered more representative of the actual short-term requirements that would be met through funding under any current allocation formula.

The potential for distortion also existed in those situations where States deviated significantly from Agency Survey Guidelines. This was also evaluated in the review process and three areas were identified where State estimates deviated from either the Survey guidelines or from what the Agency considered acceptable engineering standards. The Agency assessment indicates that excessive costs were reported as the result of estimates exceeding EPA cost curves, the Census Bureau 1990 population projections and acceptable flow per capita standards. For the reasons stated in the preceeding section, major Agency assessments could be made only for the Category I, II and IVB estimates. A summary table showing the independent assessments for each State is attached as Appendix B.

The State needs as reported for Category IVA (New Collectors) are not considered comparable because they were developed using two different assumptions. Several of the States developed needs on the basis of the PL 92-500 requirement (Section 211) that limits eligibility for new collectors only to those communities where a substantial portion of the population existed prior to October 18, 1972, and this eligibility constraint was included in the Survey guidelines. Other States developed needs on the basis of the assumed legislative intent of PL 93-243, directing the reporting of all needs for all treatment works necessary to meet the goals of PL 92-500. The resulting disparity in reported costs has been analyzed and a separate EPA assessment made. However, the Agency feels the results still do not provide an acceptable level of comparability.

In making these independent assessments the Agency identified at least \$650 million in the State of Maryland's estimates that appeared in the review to be anomalous. The State has indicated that this large increase in treatment requirements is due to special pollution problems effecting their shellfish industry and eutrophication of the Chesapeake Bay. The State estimate was not reduced, in the EPA adjustment process because the stringent effluent limitations are considered by the State to be immediate requirements that will impact current facility design.

VI. COST OF THE SURVEY

The conduct of the 1974 Needs Survey involved the commitment of a substantial amount of both Federal and State resources. The Agency expended approximately \$1 million for the project up through the period of Final Report submittal. It is known that the State's funding commitment was at least \$1.5 million. In addition, the Survey required the diversion of critical manpower during peak periods of the Survey. The National construction grant program suffered because personnel diverted were generally from that activity.

VII. CONCLUSIONS AND RECOMMENDATIONS

A. Potential Use of Estimates

To comply with the requirements of PL 93-243, these National estimates must be considered in two separate ways. They should be viewed both in terms of their value as an indicator of the total National long range facility requirements of PL 92-500, and in terms of their value for establishing State allocation formulae.

For the several reasons cited in the preceding sections of this Report, there was a degree of unevenness in the State corrected estimates that was considered unacceptable when viewing the data for allocation purposes. The Agency review process identified the extent of this unevenness and the estimates were adjusted accordingly. No meaningful adjustments could be made for Categories III, V and VI because of the status of program definitions, abatement technology and facilities planning.

If after consideration is given to the status of data comparability, the 1974 Survey estimates are to be used for allocation purposes, only Categories I, II and IVB are recommended for use. The Agency adjusted figures in these three Categories are considered to be sufficiently accurate for such purposes when viewed within the context of their overall National validity. These figures are also felt to be adequate for use as an indicator of total National requirements.

The cost estimates for the new Category VI, (treatment and/or control of stormwaters), are not considered useful as either an indicator of any long-term requirements, or for allocation purposes. States reporting large requirements in this category assumed that a stringent level of abatement for very large geographical areas would be necessary to meet water quality standards. The state-of-the-art is not such that the Agency can provide an alternative estimate for this category, but the few studies which have been conducted to assess the impact, indicate that the actual requirements in this category will be substantially less than the total reported by the States.

The Agency adjusted cost estimates for Categories IIIA, IIIB, IVA and V have limited value as an indicator of gross National requirements, but only when considered within the context of other comments regarding the needs identification policies that governed the conduct of this Survey. The cost estimates for these four Categories are not considered adequate for allocation purposes.

B. Allocation Formula

There has been continuing debate over the allocation formula used for distributing available construction grant funds among the States. When a strict population formula was used in the past it did not provide adequate funding to States that had high population concentrations and a resulting need for construction of sophisticated and expensive treatment facilities. When the legislation linked funding directly to estimated facility needs there were other inequities created. The problems with an allocation formula based strictly on needs relate primarily to the ability to accurately make and validate estimates, and are particularly acute when the estimates involve facility needs projected for State implementation of longer-range abatement requirements. This latter situation has been identified in the Report and the Agency believes that the unevenness of the estimates, even though adjusted through the Survey final review process, should be further tempered by the inclusion of a population factor within the allocation formula.

A new construction grant allocation formula is recommended that would be based on an equal 50 percent division between population and the Agency adjusted cost estimates for Categories I, II and IVB. This proposed formula is recommended for use in allocating any new funds that might be authorized over and above those authorized in PL 92-500 for Fiscal Years 1973, 1974, and 1975. With regard to the \$5 billion of currently unallotted funds, it is EPA's intent to allot them pursuant to the 1973, 1974, and 1975 formulae in such a way as if they had been released in the time periods intended by the Act. Accordingly, the Agency does not recommend the application of a new allocation formula to any of these reserve funds.

Funding for the District of Columbia's "Blue Plains" water pollution control plant should be considered in the development of an allocation formula since the City has only one major treatment plant project and the allocation formula might not provide adequate funding.

C. Future Identification of Facility Requirements

Several problems relating to data reliability and comparability have been cited in this Report. Because of these problems, and the heavy drain on State and Federal resources required to conduct the 1974 survey, the Agency will investigate different procedures for deriving future Section 516 facility estimates.

To be more effective for equitable allocation purposes, the structuring of an alternative facility requirement identification process should be directed toward improving the relationship between the dollar estimate and the actual way in which the funds will be used. To accomplish this will require that estimating concentrate on areas of program priority and grant eligibility.

The Agency will work closely with Committee staff members as it develops an alternative approach.

VIII. TABLES OF REPORTED NEEDS

Attached are three series of tables which relate to the three sets of figures discussed in the Report:

SP - State Preliminary Data
SC - State Corrected Data
EPA - EPA Adjusted Data

Each series contains the following tables:

Table 1 - Shows the distribution of cost for each State, Categories I-V.
Table 2 - Reflects cost and percentage comparison between 1973 and 1974 of combined Categories I, II, III, IV and V.
Table 3 - Shows cost and percentage comparison between 1973 and 1974 of combined Categories I, II and IVB
Table 4 - Shows a comparison of per capita costs between 1973 and 1974 for Categories I through V based on 1972 population figures.

Also included in the SP series is:

Table 5 - Shows total and per capita costs reported for Category VI by State.

NOTE: Column figures will not equal totals because of computer rounding.

TABLE SP - 1

SEPTEMBER 30, 1974

PRELIMINARY STATE ESTIMATE
1974 COSTS* REPORTED FOR CONSTRUCTION OF PUBLICLY-OWNED WASTEWATER TREATMENT FACILITIES
(*MILLIONS OF 1973 DOLLARS)

		CATEGORIES								
		TOTAL	I SECONDARY TREATMENT	II MORE STRINGENT TREATMENT	III A CONCR. INFIL./ INFLOW	III B MAJOR REPAIR	IV A NEW COLLECTOR SEWERS	IV B NEW INTER- CEPTORS	V COMBINED SEWER OVERFLOW	VI
REGION I	CONNECTICUT	4,087	181	85	23	36	328	265	702	2,667
	MAINE	896	130	5	1	3	112	149	197	299
	MASSACHUSETTS	6,496	721	222	36	31	902	597	866	3,171
	NEW HAMPSHIRE	1,088	165	95	26	0	218	181	191	212
	RHODE ISLAND	1,444	68	30	4	1	193	134	87	927
	VERMONT	367	36	64	8	3	37	35	37	147
REGION II	NEW JERSEY	12,163	1,061	666	211	168	685	909	989	7,554
	NEW YORK	37,059	616	2,593	465	2,108	4,467	2,065	5,004	20,341
	PUERTO RICO	954	177	0	14	0	245	211	18	289
	VIRGIN ISLANDS	111	13	0	1	0	12	19	0	66
REGION III	DELAWARE	1,155	67	32	100	67	65	101	115	608
	MARYLAND	13,439	9	1,705	50	1,133	146	839	27	9,530
	VIRGINIA	21,768	478	384	293	50	298	472	207	19,586
	WEST VIRGINIA	5,449	115	338	156	5	1,752	1,698	195	1,740
	PENNSYLVANIA	9,322	1,028	201	89	57	1,185	625	2,394	1,743
	DISTRICT OF COLUMBIA	1,354	0	68	41	217	0	2	726	300
REGION IV	ALABAMA	4,039	86	168	92	5	187	169	0	3,312
	FLORIDA	7,798	595	633	44	44	1,326	926	0	4,270
	GEORGIA	4,381	212	500	10	2	269	308	284	2,796
	KENTUCKY	3,412	63	319	56	68	456	373	679	1,898
	MISSISSIPPI	857	36	170	42	28	57	98	2	424
	NORTH CAROLINA	8,315	149	516	53	0	334	382	0	6,881
	SOUTH CAROLINA	3,320	347	47	14	0	255	349	0	2,508
	TENNESSEE	5,405	121	285	77	12	396	307	110	4,097
REGION V	ILLINOIS	7,170	250	1,832	184	64	473	449	1,693	2,225
	INDIANA	5,401	217	378	153	187	337	303	1,429	2,397
	MICHIGAN	8,453	148	653	97	459	1,021	1,009	1,936	3,610
	MINNESOTA	3,232	69	407	52	14	204	233	368	1,885
	OHIO	14,716	26	1,528	635	115	626	746	3,790	6,570
	WISCONSIN	4,225	184	421	80	131	427	447	621	1,914
REGION VI	ARKANSAS	4,005	0	519	63	0	445	389	2	2,667
	LOUISIANA	6,075	232	120	351	97	438	285	1	4,551
	NEW MEXICO	189	52	8	4	1	53	38	0	33
	TEXAS	15,571	0	2,162	206	187	713	468	118	11,717
	OKLAHOMA	5,138	0	576	67	556	176	696	0	3,067
REGION VII	IOWA	3,876	157	216	126	10	124	232	126	2,885
	KANSAS	4,760	263	71	587	326	861	297	113	2,242
	MISSOURI	3,489	460	88	219	0	383	341	878	1,120
	NEBRASKA	1,037	193	12	39	1	41	67	631	653
REGION VIII	COLORADO	713	96	203	29	24	123	212	26	NO NEEDS
	MONTANA	754	40	18	4	2	22	35	8	625
	NORTH DAKOTA	548	61	0	1	0	68	24	50	344
	SOUTH DAKOTA	283	33	32	1	0	2	9	0	206
	UTAH	750	196	0	14	2	59	24	0	455
	WYOMING	133	62	0	0	0	56	15	0	NO NEEDS
REGION IX	ARIZONA	613	166	9	1	1	332	104	0	NO NEEDS
	CALIFORNIA	76,816	1,016	2,687	353	46	811	1,144	900	69,819
	HAWAII	15,120	203	27	0	0	80	210	0	14,600
	NEVADA	316	42	102	1	0	126	45	0	NO NEEDS
	AMERICAN SAMOA	97	8	0	0	1	28	18	0	42
	GUAM	363	36	10	1	0	53	16	0	247
	TRUST TERRITORIES	190	90	18	2	0	55	25	0	NO NEEDS
REGION X	ALASKA	857	122	0	4	2	98	64	9	558
	IDAH0	946	58	64	23	16	180	100	36	469
	OREGON	1,482	147	0	57	325	192	161	262	838
	WASHINGTON	4,366	578	44	95	465	558	352	323	1,951
TOTAL:		349,513	11,679	21,311	5,355	7,070	23,090	19,932	26,070	275,006

THE FOLLOWING ADDITIONAL NEEDS NOT INCLUDED IN THIS REPORT:
WASH. RECEIVED AFTER THE SURVEY CLOSING DATE:

NEW YORK \$592 MILLION
KENTUCKY \$301 MILLION

TABLE SP - 2

MAY 6, 1975

PRELIMINARY STATE ESTIMATE
STATE NEEDS AND PERCENTAGE OF NATIONAL COSTS*
REPORTED FOR CONSTRUCTION OF PUBLICLY-OWNED WASTEWATER TREATMENT FACILITIES
(CATEGORIES I, II, III, IVA, IVB AND V)
(*MILLIONS OF 1973 DOLLARS)

		COSTS*			PERCENTAGE OF NATIONAL TOTALS		
		9/3/74 SUBMITTED	EPA ASSESSMENT	CHANGE	9/3/74 SUBMITTED	EPA ASSESSMENT	CHANGE
REGION I	CONNECTICUT	1,620	1,588	-32	1,4147	1,4784	+0.0636
	MAINE	597	575	-22	0.5213	0.5360	+0.0146
	MASSACHUSETTS	3,375	2,964	-411	2,9474	2,7597	-0.1876
	NEW HAMPSHIRE	876	740	-136	0.7650	0.6891	-0.0758
	RHODE ISLAND	517	447	-70	0.4515	0.4166	-0.0348
	VERMONT	220	204	-16	0.1921	0.1905	-0.0015
REGION II	NEW JERSEY	4,609	4,894	+285	4,0250	4,5551	+0.5300
	NEW YORK	17,318	15,302	-2,016	15,1239	14,2426	-0.8812
	PUERTO RICO	665	603	-62	0.5807	0.5614	-0.0192
	VIRGIN ISLANDS	45	44	-1	0.0392	0.0411	+0.0018
REGION III	DELAWARE	547	546	-1	0.4777	0.5085	+0.0307
	MARYLAND	3,909	3,642	-267	3,4137	3,3902	-0.0234
	VIRGINIA	2,182	1,884	-298	1,9055	1,7541	-0.1513
	WEST VIRGINIA	4,259	2,360	-1,899	3,7194	2,1971	-1.5222
	PENNSYLVANIA	5,579	5,454	-125	4,8721	5,0767	+0.2045
	DISTRICT OF COLUMBIA	1,054	1,052	-2	0.9204	0.9798	+0.0593
REGION IV	ALABAMA	707	778	+71	0.6174	0.7248	+0.1073
	FLORIDA	3,568	2,704	-864	3,1159	2,5172	-0.5986
	GEORGIA	1,585	1,519	-66	1,3841	1,4140	+0.0298
	KENTUCKY	2,014	1,824	-190	1,7588	1,6978	-0.0609
	MISSISSIPPI	433	494	+61	0.3781	0,4604	+0.0822
	NORTH CAROLINA	1,434	1,480	+46	1,2523	1,3779	+0.1255
	SOUTH CAROLINA	1,012	977	-35	0.8837	0,9097	+0.0259
	TENNESSEE	1,308	1,210	-98	1,1422	1,1262	-0.0159
REGION V	ILLINOIS	4,945	6,234	+1,289	4,3185	5,8029	+1,4843
	INDIANA	3,004	2,903	-101	2,6234	2,7025	+0.0790
	MICHIGAN	5,323	8,102	+2,779	4,6486	7,5414	+2,8927
	MINNESOTA	1,347	1,330	-17	1,1763	1,2379	+0.0615
	OHIO	7,646	7,773	+127	6,6773	7,2355	+0.5581
	WISCONSIN	2,311	2,044	-267	2,0182	1,9025	-0.1156
REGION VI	ARKANSAS	1,338	898	-440	1,1684	0,8366	-0.3319
	LOUISIANA	1,524	1,283	-241	1,3309	1,1949	-0.1359
	NEW MEXICO	156	155	-1	0.1362	0,1450	+0.0087
	TEXAS	3,854	3,222	-632	3,3657	2,9993	-0.3663
	OKLAHOMA	2,071	1,484	-587	1,8086	1,3812	-0.4273
REGION VII	IOWA	991	911	-80	0.8654	0,8485	-0.0168
	KANSAS	2,518	1,783	-735	2,1989	1,6600	-0.5388
	MISSOURI	2,369	2,298	-71	2,0688	2,1394	+0.0705
	NEBRASKA	984	924	-60	0.8593	0,8600	+0.0006
REGION VIII	COLORADO	713	523	-190	0.6226	0,4875	-0.1350
	MONTANA	129	127	-2	0.1126	0,1182	+0.0055
	NORTH DAKOTA	204	189	-15	0.1781	0,1762	-0.0018
	SOUTH DAKOTA	77	75	-2	0.0672	0,0704	+0.0031
	UTAH	295	291	-4	0.2576	0,2713	+0.0136
	WYOMING	133	84	-49	0.1161	0,0784	-0.0376
REGION IX	ARIZONA	613	500	-113	0.5353	0,4662	-0.0690
	CALIFORNIA	6,997	6,208	-789	6,1105	5,7789	-0.3315
	HAWAII	520	523	+3	0.4541	0,4869	+0.0327
	NEVADA	316	209	-107	0.2759	0,1948	-0.0810
	AMERICAN SAMOA	55	52	-3	0.0480	0,0488	+0.0007
	GUAM	116	93	-23	0.1013	0,0870	-0.0142
	TRUST TERRITORIES	190	195	+5	0.1659	0,1819	+0.0159
REGION X	ALASKA	299	405	+106	0.2611	0,3770	+0.1158
	IDAH0	477	393	-84	0.4165	0,3659	-0.0505
	OREGON	1,144	1,081	-63	0.9990	1,0065	+0.0074
	WASHINGTON	2,415	1,836	-579	2,1090	1,7088	-0.4001
TOTAL:		114,507	107,438	-7,069	100.0000	100.0000	+0.0000

TABLE SP - 3

MAY 6, 1975

PRELIMINARY STATE ESTIMATE
STATE NEEDS AND PERCENTAGE OF NATIONAL COSTS*
REPORTED FOR CONSTRUCTION OF TREATMENT PLANTS AND INTERCEPTORS
(CATEGORIES I, II, AND IV B)
(*MILLIONS OF 1973 DOLLARS)

		COSTS*			PERCENTAGE OF NATIONAL TOTALS		
		9/3/74 SUBMITTED	EPA ASSESSMENT	CHANGE	9/3/74 SUBMITTED	EPA ASSESSMENT	CHANGE
REGION I	CONNECTICUT	531	478	-53	1.0033	1.0317	+0.0283
	MAINE	284	273	-11	0.5366	0.5892	+0.0525
	MASSACHUSETTS	1,540	1,325	-215	2.9099	2.8600	-0.0498
	NEW HAMPSHIRE	441	384	-57	0.8333	0.8288	-0.0044
	RHODE ISLAND	232	187	-45	0.4383	0.4036	-0.0346
	VERMONT	135	125	-10	0.2550	0.2698	+0.0147
REGION II	NEW JERSEY	2,636	2,602	-34	4.9809	5.6164	+0.6354
	NEW YORK	5,274	4,603	-671	9.7656	9.9356	+0.0299
	PUERTO RICO	388	368	-20	0.7331	0.7943	+0.0611
	VIRGIN ISLANDS	32	31	-1	0.0604	0.0669	+0.0064
REGION III	DELAWARE	200	199	-1	0.3779	0.4295	+0.0515
	MARYLAND	2,553	2,324	-229	4.8240	5.0163	+0.1922
	VIRGINIA	1,334	1,129	-205	2.5206	2.4369	-0.0836
	WEST VIRGINIA	2,151	1,320	-831	4.0544	3.8492	-1.2151
	PENNSYLVANIA	1,854	1,629	-225	3.5032	3.5162	+0.0129
	DISTRICT OF COLUMBIA	70	69	-1	0.1322	0.1489	+0.0166
REGION IV	ALABAMA	423	472	+49	0.7992	1.0168	+0.2195
	FLORIDA	2,154	1,874	-280	4.0701	4.0450	-0.0250
	GEORGIA	1,020	1,020	+0	1.9273	2.2016	+0.2742
	KENTUCKY	755	649	-106	1.4266	1.4008	-0.0257
	MISSISSIPPI	304	359	+55	0.5744	0.7744	+0.2004
	NORTH CAROLINA	1,047	1,044	-3	1.9783	1.2534	+0.2750
	SOUTH CAROLINA	743	728	-15	1.4039	1.5713	+0.1673
	TENNESSEE	713	677	-36	1.3472	1.4613	+0.1140
REGION V	ILLINOIS	2,531	2,343	-188	4.7825	5.0573	+0.2747
	INDIANA	898	837	-61	1.6568	1.8066	+0.1097
	MICHIGAN	1,810	1,673	-137	3.4201	3.6111	+0.1909
	MINNESOTA	709	707	-2	1.3397	1.5260	+0.1862
	OHIO	2,440	2,367	-73	4.6861	4.1992	+0.4230
	WISCONSIN	1,052	939	-113	1.9878	2.0269	+0.0389
REGION VI	ARKANSAS	828	582	-246	1.5645	1.2562	-0.3082
	LOUISIANA	637	499	-138	1.2036	1.0770	-0.1265
	NEW MEXICO	98	97	-1	0.1851	0.2093	+0.0241
	TEXAS	2,630	2,025	-605	4.9545	4.3709	-0.5835
	OKLAHOMA	1,272	662	-610	2.4015	1.4289	-0.9725
REGION VII	IOWA	605	532	-73	1.1431	1.1483	+0.0051
	KANSAS	631	524	-107	1.1923	1.1310	-0.0612
	MISSOURI	849	843	-6	1.6798	1.8196	+0.1397
	NEBRASKA	272	227	-45	0.5139	0.4899	-0.0239
REGION VIII	COLORADO	511	373	-138	0.9655	0.8051	-0.1603
	MONTANA	93	90	-3	0.1757	0.1942	+0.0184
	NORTH DAKOTA	85	74	-11	0.1606	0.1597	-0.0008
	SOUTH DAKOTA	74	72	-2	0.1398	0.1554	+0.0155
	UTAH	220	218	-2	0.4157	0.4705	+0.0547
	WYOMING	77	55	-22	0.1454	0.1187	-0.0266
REGION IX	ARIZONA	279	266	-13	0.5271	0.5741	+0.0469
	CALIFORNIA	4,887	4,104	-783	9.2343	8.8585	-0.3757
	HAWAII	440	439	-1	0.8314	0.9475	+0.1160
	NEVADA	189	177	-12	0.3571	0.3820	+0.0248
	AMERICAN SAMOA	26	23	-3	0.0491	0.0500	+0.0008
	GUAM	62	60	-2	0.1171	0.1295	+0.0123
	TRUST TERRITORIES	133	133	+0	0.2513	0.2870	+0.0356
REGION X	ALASKA	186	319	+133	0.3514	0.6885	+0.3370
	IDaho	222	216	-6	0.4194	0.4662	+0.0467
	OREGON	308	308	+0	0.5819	0.6648	+0.0828
	WASHINGTON	974	675	-299	1.8404	1.4569	-0.3834
TOTAL:		52,922	46,328	-6,594	100.0000	100.0000	+0.0000

TABLE SP - 4

PRELIMINARY STATE ESTIMATE

MAY 6, 1975.

PER CAPITA COSTS REPORTED FOR CONSTRUCTION OF PUBLICLY-OWNED TREATMENT FACILITIES
 BASED ON 1990 POPULATION
 (CATEGORIES I, II, III, IV A, IV B, AND V)
 (*MILLIONS OF 1973 DOLLARS)
 (**THOUSANDS OF PEOPLE)

		9/3/74 COSTS*	EPA COSTS*	1990 POPULATION**	9/3/74 COSTS PER CAPITA	EPA COSTS PER CAPITA	CHANGE IN PER CAPITA COSTS
REGION I	CONNECTICUT	1,620	1,588	3,946	\$410	\$402	-8
	MAINE	597	575	1,142	\$522	\$503	-19
	MASSACHUSETTS	3,375	2,964	7,052	\$478	\$420	-58
	NEW HAMPSHIRE	876	740	907	\$965	\$815	-150
	RHODE ISLAND	517	447	1,134	\$455	\$394	-61
	VERMONT	220	204	536	\$410	\$380	-30
REGION II	NEW JERSEY	4,609	4,894	8,822	\$522	\$554	+32
	NEW YORK	17,318	15,302	21,799	\$794	\$701	-93
	PUERTO RICO	665	603	3,786	\$175	\$159	-16
	VIRGIN ISLANDS	45	44	116	\$387	\$379	-8
REGION III	DELAWARE	547	546	793	\$689	\$688	-1
	MARYLAND	3,909	3,642	5,318	\$735	\$684	-51
	VIRGINIA	2,182	1,884	5,958	\$366	\$316	-50
	WEST VIRGINIA	4,259	2,360	1,845	\$2,308	\$1,279	-1,029
	PENNSYLVANIA	5,579	5,454	13,332	\$418	\$409	-9
	DISTRICT OF COLUMBIA	1,054	1,052	764	\$1,379	\$1,376	-3
REGION IV	ALABAMA	707	778	3,850	\$183	\$202	+19
	FLORIDA	3,568	2,704	11,728	\$304	\$230	-74
	GEORGIA	1,585	1,519	5,667	\$279	\$268	-11
	KENTUCKY	2,014	1,824	3,741	\$538	\$487	-51
	MISSISSIPPI	433	494	2,359	\$183	\$209	+26
	NORTH CAROLINA	1,434	1,480	5,880	\$243	\$251	+8
	SOUTH CAROLINA	1,012	977	3,023	\$334	\$323	-11
	TENNESSEE	1,308	1,210	4,800	\$272	\$252	-20
REGION V	ILLINOIS	4,945	6,234	13,177	\$375	\$473	+98
	INDIANA	3,004	2,903	6,433	\$466	\$451	-15
	MICHIGAN	5,323	8,102	10,961	\$485	\$739	+254
	MINNESOTA	1,347	1,330	4,577	\$294	\$290	-4
	OHIO	7,646	7,773	13,202	\$579	\$588	+9
	WISCONSIN	2,311	2,044	5,218	\$442	\$391	-51
REGION VI	ARKANSAS	1,338	898	2,068	\$647	\$434	-213
	LOUISIANA	1,524	1,283	4,159	\$366	\$308	-58
	NEW MEXICO	156	155	1,232	\$126	\$125	-1
	TEXAS	3,854	3,222	13,666	\$282	\$235	-47
	OKLAHOMA	2,071	1,484	2,942	\$703	\$504	-199
REGION VII	IOWA	991	911	3,053	\$324	\$298	-26
	KANSAS	2,518	1,783	2,509	\$1,003	\$710	-293
	MISSOURI	2,369	2,298	5,488	\$431	\$418	-13
	NEBRASKA	984	924	1,562	\$629	\$591	-38
REGION VIII	COLORADO	713	523	2,848	\$250	\$183	-67
	MONTANA	129	127	714	\$180	\$177	-3
	NORTH DAKOTA	204	189	606	\$336	\$311	-25
	SOUTH DAKOTA	77	75	643	\$119	\$116	-3
	UTAH	295	291	1,509	\$195	\$192	-3
	WYOMING	133	84	600	\$221	\$140	-81
REGION IX	ARIZONA	613	500	3,384	\$181	\$147	-34
	CALIFORNIA	6,997	6,208	26,601	\$263	\$233	-30
	HAWAII	520	523	1,010	\$514	\$517	+3
	NEVADA	316	209	933	\$338	\$224	-114
	AMERICAN SAMOA	55	52	40	\$1,375	\$1,300	-75
	GUAM	116	93	275	\$421	\$338	-83
	TRUST TERRITORIES	190	195	205	\$926	\$951	+25
REGION X	ALASKA	299	405	408	\$732	\$992	+260
	IDAHO	477	393	758	\$629	\$518	-111
	OREGON	1,144	1,081	2,943	\$388	\$367	-21
	WASHINGTON	2,415	1,836	4,194	\$575	\$437	-138
TOTAL:		114,507	107,438	256,216	\$446	\$419	-27

TABLE SP-5

PER CAPITA COSTS REPORTED FOR TREATMENT AND/OR CONTROL OF STORMWATERS
(CATEGORY VI) May 6, 1975.

	Total Cost (Millions)	1990 Population (Thousands)	Per Capita Costs
TOTALS	235,006	256,216	917
REGION I			
Connecticut	2,667	3,946	676
Maine	299	1,142	262
Massachusetts	3,121	7,052	443
New Hampshire	212	907	234
Rhode Island	927	1,134	817
Vermont	147	536	274
REGION II			
New Jersey	7,554	8,822	856
New York	20,341	21,799	933
Puerto Rico	289	3,786	76
Virgin Islands	66	116	567
REGION III			
Delaware	608	793	767
Maryland	9,530	5,318	1,792
Virginia	19,586	5,958	3,287
West Virginia	1,740	1,845	943
Pennsylvania	3,743	13,332	281
Dist. of Columbia	300	764	393
REGION IV			
Alabama	3,332	3,850	866
Florida	4,230	11,728	361
Georgia	2,796	5,667	493
Kentucky	1,898	3,741	507
Mississippi	424	2,359	180
North Carolina	6,441	5,880	1,110
South Carolina	2,528	3,023	830
Tennessee	4,097	4,800	854
REGION V			
Illinois	2,222	13,177	169
Indiana	2,327	6,433	373
Michigan	3,440	10,961	331
Minnesota	1,245	4,577	414
Ohio	6,510	13,702	498
Wisconsin	1,924	4,218	367
REGION VI			
Arkansas	2,447	2,068	1,230
Louisiana	4,551	4,159	1,094
New Mexico	22	1,232	27
Texas	11,717	14,446	857
Oklahoma	3,067	2,942	1,042
REGION VII			
Iowa	2,845	3,052	945
Kansas	2,224	2,509	894
Missouri	1,120	5,488	204
Nebraska	653	1,562	418
REGION VIII			
Colorado	No Needs	2,848	-
Montana	675	714	875
North Dakota	344	606	568
South Dakota	206	643	320
Utah	455	1,509	302
Wyoming	No Needs	600	-
REGION IX			
Arizona	No Needs	3,384	-
California	69,819	26,601	2,625
Hawaii	14,600	1,010	14,455
Nevada	No Needs	933	-
American Samoa	42	40	1,030
Guam	247	275	898
Trust Territories	No Needs	205	-
REGION X			
Alaska	558	408	1,368
Idaho	469	758	619
Oregon	838	2,943	285
Washington	1,951	4,194	465

TABLE SC - 1

MAY 6, 1975

CORRECTED STATE ESTIMATE
1974 COSTS* REPORTED FOR CONSTRUCTION OF PUBLICLY-OWNED WASTEWATER TREATMENT FACILITIES
(*MILLIONS OF 1973 DOLLARS)

		CATEGORIES							
		TOTAL	I SECONDARY TREATMENT	II MORE STRINGENT TREATMENT	III A CORR. INFIL./ INFLOW	III B MAJOR REHAB	IV A NEW COLLECTION SEWERS	IV B NEW INTER- CEPTORS	V COMBINED SEWER OVERFLOW
REGION I	CONNECTICUT	1,598	171	94	21	38	320	213	738
	MAINE	589	130	4	1	2	113	139	196
	MASSACHUSETTS	3,285	713	230	33	25	914	542	824
	NEW HAMPSHIRE	861	154	95	23	0	218	218	147
	RHODE ISLAND	478	49	37	3	0	177	123	87
	VERMONT	215	33	64	9	0	36	34	35
REGION II	NEW JERSEY	5,010	1,129	589	199	174	611	929	1,377
	NEW YORK	17,421	944	2,347	509	2,341	4,244	2,031	5,004
	PUERTO RICO	604	181	0	14	0	203	187	17
	VIRGIN ISLANDS	45	13	0	1	0	12	18	0
REGION III	DELAWARE	547	65	34	100	67	65	100	114
	MARYLAND	3,937	10	1,700	47	1,132	140	872	27
	VIRGINIA	2,128	456	379	290	49	287	459	206
	WEST VIRGINIA	4,225	106	335	145	5	1,746	1,692	194
	PENNSYLVANIA	5,730	946	285	91	48	1,268	651	2,439
	DISTRICT OF COLUMBIA	1,053	0	67	40	216	0	2	726
REGION IV	ALABAMA	819	114	165	102	11	233	193	0
	FLORIDA	3,526	612	651	45	44	1,262	911	0
	GEORGIA	1,595	200	508	12	2	268	319	283
	KENTUCKY	1,862	51	243	53	63	444	355	652
	MISSISSIPPI	495	35	202	45	31	57	122	1
	NORTH CAROLINA	1,531	211	451	52	0	434	382	0
	SOUTH CAROLINA	1,028	340	46	21	0	269	350	0
	TENNESSEE	1,301	112	293	46	39	418	276	114
REGION V	ILLINOIS	6,301	317	1,653	176	60	511	394	3,188
	INDIANA	2,968	216	379	151	185	336	302	1,397
	MICHIGAN	8,199	117	673	96	456	1,002	969	4,884
	MINNESOTA	1,387	63	451	52	14	204	233	368
	OHIO	7,920	219	1,325	637	114	625	935	4,062
	WISCONSIN	2,291	180	417	79	134	419	438	621
REGION VI	ARKANSAS	1,503	0	597	68	0	503	332	1
	LOUISIANA	1,536	351	3	352	97	439	289	0
	NEW MEXICO	156	52	7	3	1	54	38	0
	TEXAS	3,752	9	2,144	207	214	660	399	118
	OKLAHOMA	3,664	0	565	55	551	1,806	685	0
REGION VII	IOWA	965	154	209	123	9	122	222	125
	KANSAS	2,348	240	66	572	318	765	272	113
	MISSOURI	2,399	471	75	219	0	375	380	878
	NEBRASKA	977	183	18	38	1	39	65	630
REGION VIII	COLORADO	716	112	188	29	24	122	212	26
	MONTANA	124	39	16	5	1	21	35	7
	NORTH DAKOTA	195	51	0	1	0	67	23	50
	SOUTH DAKOTA	78	33	32	1	0	3	7	0
	UTAH	294	195	0	14	2	58	23	0
	WYOMING	133	61	0	0	0	55	15	0
REGION IX	ARIZONA	597	159	8	1	1	327	99	0
	CALIFORNIA	7,156	1,291	2,344	366	47	959	1,245	902
	HAWAII	520	203	27	0	0	81	209	0
	NEVADA	316	42	102	1	0	125	45	0
	AMERICAN SAMOA	55	8	0	0	0	28	18	0
	GUAM	117	36	9	2	0	53	15	0
	TRUST TERRITORIES	197	90	18	1	0	60	25	0
REGION X	ALASKA	412	234	0	4	1	77	85	9
	IDAHO	471	46	71	22	16	179	99	35
	OREGON	1,144	146	1	56	324	191	161	262
	WASHINGTON	2,371	515	101	91	454	548	344	316
TOTAL:		121,171	12,628	20,330	5,348	7,330	24,583	19,758	31,192

TABLE SC - 2

MAY 6, 1975

CORRECTED STATE ESTIMATE
STATE NEEDS AND PERCENTAGE OF NATIONAL COSTS*
REPORTED FOR CONSTRUCTION OF PUBLICLY-OWNED WASTEWATER TREATMENT FACILITIES
(CATEGORIES I, II, III, IVA, IVB AND V)
(*MILLIONS OF 1973 DOLLARS)

		COSTS*			PERCENTAGE OF NATIONAL TOTALS		
		STATE CORRECTED	EPA ASSESSMENT	CHANGE	STATE CORRECTED	EPA ASSESSMENT	CHANGE
REGION I	CONNECTICUT	1,598	1,588	-10	1.3190	1.4784	+0.1593
	MAINE	589	575	-14	0.4863	0.5360	+0.0496
	MASSACHUSETTS	3,285	2,964	-321	2.7111	2.7597	+0.0485
	NEW HAMPSHIRE	861	740	-121	0.7108	0.6891	-0.0216
	RHODE ISLAND	478	447	-31	0.3949	0.4166	+0.0216
	VERMONT	215	204	-11	0.1776	0.1905	+0.0128
REGION II	NEW JERSEY	5,010	4,894	-116	4.1351	4.5551	+0.4199
	NEW YORK	17,421	15,302	-2,119	14.3773	14.2426	-0.1346
	PUEERTO RICO	604	603	-1	0.4985	0.5614	+0.0629
	VIRGIN ISLANDS	45	44	-1	0.0371	0.0411	+0.0039
REGION III	DELAWARE	547	546	-1	0.4522	0.5085	+0.0562
	MARYLAND	3,932	3,642	-290	3.2450	3.3902	+0.1451
	VIRGINIA	2,128	1,884	-244	1.7562	1.7541	-0.0020
	WEST VIRGINIA	4,225	2,360	-1,865	3.4873	2.1971	-1.2901
	PENNSYLVANIA	5,730	5,454	-276	4.7296	5.0767	+0.3470
	DISTRICT OF COLUMBIA	1,053	1,052	-1	0.8694	0.9798	+0.1103
REGION IV	ALABAMA	819	778	-41	0.6762	0.7248	+0.0485
	FLORIDA	3,526	2,704	-822	2.9104	2.5172	-0.3931
	GEORGIA	1,595	1,519	-76	1.3166	1.4140	+0.0973
	KENTUCKY	1,862	1,824	-38	1.5374	1.6978	+0.1603
	MISSISSIPPI	495	494	-1	0.4089	0.4604	+0.0514
	NORTH CAROLINA	1,531	1,480	-51	1.2639	1.3779	+0.1139
	SOUTH CAROLINA	1,028	977	-51	0.8487	0.9097	+0.0609
	TENNESSEE	1,301	1,210	-91	1.0737	1.1262	+0.0524
REGION V	ILLINOIS	6,301	6,234	-67	5.2003	5.8029	+0.6025
	INDIANA	2,968	2,903	-65	2.4501	2.7025	+0.2523
	MICHIGAN	8,149	8,102	-47	6.7665	7.5414	+0.7748
	MINNESOTA	1,387	1,330	-57	1.1452	1.2379	+0.0926
	OHIO	7,920	7,773	-147	6.5364	7.2355	+0.6990
	WISCONSIN	2,291	2,044	-247	1.8510	1.9025	+0.0514
REGION VI	ARKANSAS	1,503	898	-605	1.2408	1.8364	+0.4043
	LOUISIANA	1,536	1,283	-253	1.2684	1.1949	-0.0734
	NEW MEXICO	156	155	-1	0.1294	0.1450	+0.0155
	TEXAS	3,752	3,222	-530	3.0971	2.9993	-0.0977
	OKLAHOMA	3,664	1,484	-2,180	3.0243	1.3812	-1.6430
REGION VII	IOWA	965	911	-54	0.7966	0.8485	+0.0518
	KANSAS	2,348	1,783	-565	1.9382	1.6600	-0.2781
	MISSOURI	2,349	2,298	-51	1.9802	2.1394	+0.1591
	NEBRASKA	977	924	-53	0.8066	0.8600	+0.0533
REGION VIII	COLORADO	716	523	-193	0.5910	0.4875	-0.1034
	MONTANA	128	127	-1	0.1062	0.1182	+0.0119
	NORTH DAKOTA	195	189	-6	0.1609	0.1762	+0.0152
	SOUTH DAKOTA	78	75	-3	0.0644	0.0704	+0.0059
	UTAH	294	291	-3	0.2433	0.2713	+0.0279
	WYOMING	133	84	-49	0.1097	0.0784	-0.0312
REGION IX	ARIZONA	597	500	-97	0.4930	0.4662	-0.0267
	CALIFORNIA	7,156	6,208	-948	5.9063	5.7789	-0.1273
	HAWAII	520	523	+3	0.4297	0.4869	+0.0571
	NEVADA	316	209	-107	0.2612	0.1948	-0.0663
	AMERICAN SAMOA	55	52	-3	0.0460	0.0488	+0.0027
	GUAM	117	93	-24	0.0972	0.0870	-0.0101
	TRUST TERRITORIES	197	195	-2	0.1626	0.1819	+0.0192
REGION X	ALASKA	412	405	-7	0.3408	0.3770	+0.0361
	IDAHO	471	393	-78	0.3894	0.3659	-0.0234
	OREGON	1,144	1,081	-63	0.9442	1.0065	+0.0622
	WASHINGTON	2,371	1,836	-535	1.9572	1.7088	-0.2483
TOTAL:		121,171	107,438	-13,733	100.0000	100.0000	+0.0000

TABLE SC - 3

CORRECTED STATE ESTIMATE

MAY 6, 1975

STATE NEEDS AND PERCENTAGE OF NATIONAL COSTS*
 REPORTED FOR CONSTRUCTION OF TREATMENT PLANTS AND INTERCEPTORS
 (CATEGORIES I, II, AND IV B)
 (*MILLIONS OF 1973 DOLLARS)

		COSTS*			PERCENTAGE OF NATIONAL TOTALS		
		STATE CORRECTED	EPA ASSESSMENT	CHANGE	STATE CORRECTED	EPA ASSESSMENT	CHANGE
REGION I	CONNECTICUT	478	478	+0	0.9081	1.0317	+0.1235
	MAINE	274	273	-1	0.5210	0.5892	+0.0681
	MASSACHUSETTS	1,485	1,325	-160	2.8185	2.8600	+0.0414
	NEW HAMPSHIRE	471	384	-87	0.8946	0.8288	-0.0657
	RHODE ISLAND	209	187	-22	0.3967	0.4036	+0.0068
	VERMONT	132	125	-7	0.2514	0.2698	+0.0183
REGION II	NEW JERSEY	2,647	2,602	-45	5.0219	5.6164	+0.5944
	NEW YORK	5,322	4,603	-719	10.0964	9.9356	-0.1607
	PUERTO RICO	368	368	+0	0.6996	0.7943	+0.0946
	VIRGIN ISLANDS	31	31	+0	0.0604	0.0669	+0.0064
REGION III	DELAWARE	200	199	-1	0.3804	0.4295	+0.0490
	MARYLAND	2,583	2,324	-259	4.9010	5.0163	+0.1152
	VIRGINIA	1,294	1,129	-165	2.4561	2.4369	-0.0191
	WEST VIRGINIA	2,133	1,320	-813	4.0478	2.8492	-1.1985
	PENNSYLVANIA	1,883	1,629	-254	3.5723	3.5162	-0.0560
	DISTRICT OF COLUMBIA	69	69	+0	0.1323	0.1489	+0.0165
REGION IV	ALABAMA	472	472	+0	0.8956	1.0188	+0.1231
	FLORIDA	2,174	1,874	-300	4.1250	4.0450	-0.0799
	GEORGIA	1,027	1,020	-7	1.9484	2.2016	+0.2531
	KENTUCKY	649	649	+0	1.2329	1.4008	+0.1678
	MISSISSIPPI	359	359	+0	0.6823	0.7749	+0.0925
	NORTH CAROLINA	1,044	1,044	+0	1.9820	2.2534	+0.2713
	SOUTH CAROLINA	737	728	-9	1.3985	1.5713	+0.1727
	TENNESSEE	681	677	-4	1.2931	1.4613	+0.1681
REGION V	ILLINOIS	2,364	2,343	-21	4.4860	5.0573	+0.5712
	INDIANA	898	837	-61	1.7034	1.8066	+0.1031
	MICHIGAN	1,759	1,673	-86	3.3369	3.6111	+0.2741
	MINNESOTA	748	707	-41	1.4196	1.5260	+0.1063
	OHIO	2,480	2,367	-113	4.7045	5.1092	+0.4046
	WISCONSIN	1,035	939	-96	1.9651	2.0268	+0.0616
REGION VI	ARKANSAS	930	582	-348	1.7648	1.2562	-0.5085
	LOUISIANA	646	499	-147	1.2260	1.0770	-0.1489
	NEW MEXICO	98	97	-1	0.1859	0.2093	+0.0233
	TEXAS	2,552	2,025	-527	4.8414	4.3709	-0.4704
	OKLAHOMA	1,251	662	-589	2.3736	1.4289	-0.9446
REGION VII	IOWA	585	532	-53	1.1108	1.1483	+0.0374
	KANSAS	578	524	-54	1.0975	1.1310	+0.0334
	MISSOURI	927	843	-84	1.7584	1.8196	+0.0611
	NEBRASKA	266	227	-39	0.5059	0.4899	-0.0159
REGION VIII	COLORADO	513	373	-140	0.9731	0.8051	-0.1679
	MONTANA	91	90	-1	0.1739	0.1942	+0.0202
	NORTH DAKOTA	75	74	-1	0.1435	0.1597	+0.0161
	SOUTH DAKOTA	73	72	-1	0.1392	0.1554	+0.0161
	UTAH	219	218	-1	0.4165	0.4705	+0.0539
	WYOMING	77	55	-22	0.1461	0.1187	-0.0273
REGION IX	ARIZONA	266	266	+0	0.5055	0.5741	+0.0685
	CALIFORNIA	4,880	4,104	-776	9.2589	8.8585	-0.4003
	HAWAII	439	439	+0	0.8337	0.9475	+0.1137
	NEVADA	189	177	-12	0.3601	0.3820	+0.0218
	AMERICAN SAMOA	26	23	-3	0.0501	0.0500	-0.0000
	GUAM	61	60	-1	0.1172	0.1295	+0.0122
	TRUST TERRITORIES	134	133	-1	0.2553	0.2870	+0.0316
REGION X	ALASKA	320	319	-1	0.6071	0.6885	+0.0813
	IDAH0	217	216	-1	0.4126	0.4662	+0.0535
	OREGON	308	308	+0	0.5856	0.6648	+0.0791
	WASHINGTON	961	675	-286	1.8229	1.4569	-0.3659
TOTAL:		52,716	46,328	-6,388	100.0000	100.0000	+0.0000

TABLE SC - 4

CORRECTED STATE ESTIMATE

MAY 6, 1975

PER CAPITA COSTS REPORTED FOR CONSTRUCTION OF PUBLICLY-OWNED TREATMENT FACILITIES
 BASED ON 1990 POPULATION
 (CATEGORIES I, II, III, IV A, IV B, AND V)
 (*MILLIONS OF 1973 DOLLARS)
 (**THOUSANDS OF PEOPLE)

		9/3/74 COSTS*	EPA COSTS*	1990 POPULATION**	9/3/74 COSTS PER CAPITA	EPA COSTS PER CAPITA	CHANGE IN PER CAPITA COSTS
REGION I	CONNECTICUT	1,598	1,588	3,946	\$404	\$402	-2
	MAINE	589	575	1,142	\$515	\$503	-12
	MASSACHUSETTS	3,285	2,964	7,052	\$465	\$420	-45
	NEW HAMPSHIRE	861	770	907	\$949	\$815	-134
	RHODE ISLAND	478	447	1,134	\$421	\$394	-27
	VERMONT	215	204	536	\$401	\$380	-21
REGION II	NEW JERSEY	5,010	4,894	8,822	\$567	\$554	-13
	NEW YORK	17,421	15,302	21,799	\$794	\$701	-93
	PUERTO RICO	604	603	3,786	\$159	\$159	0
	VIRGIN ISLANDS	45	44	116	\$387	\$379	-8
REGION III	DELAWARE	547	546	793	\$689	\$688	-1
	MARYLAND	3,932	3,642	5,318	\$739	\$684	-55
	VIRGINIA	2,128	1,884	5,958	\$357	\$316	-41
	WEST VIRGINIA	4,225	2,360	1,845	\$2,289	\$1,279	-1,010
	PENNSYLVANIA	3,730	5,454	13,332	\$424	\$409	-15
	DISTRICT OF COLUMBIA	1,053	1,052	764	\$1,374	\$1,376	2
REGION IV	ALABAMA	819	778	3,850	\$212	\$202	-10
	FLORIDA	3,526	2,704	11,728	\$300	\$230	-70
	GEORGIA	1,595	1,519	5,667	\$281	\$268	-13
	KENTUCKY	1,862	1,824	3,741	\$497	\$487	-10
	MISSISSIPPI	495	494	2,354	\$209	\$209	0
	NORTH CAROLINA	1,531	1,440	5,880	\$260	\$251	-9
	SOUTH CAROLINA	1,028	977	3,023	\$340	\$323	-17
	TENNESSEE	1,301	1,210	4,800	\$271	\$252	-19
REGION V	ILLINOIS	6,301	6,234	13,177	\$479	\$473	-6
	INDIANA	2,968	2,903	6,433	\$461	\$451	-10
	MICHIGAN	8,149	8,102	10,961	\$748	\$739	-9
	MINNESOTA	1,387	1,330	4,577	\$303	\$290	-13
	OHIO	7,920	7,773	13,202	\$599	\$588	-11
	WISCONSIN	2,291	2,044	5,218	\$439	\$391	-48
REGION VI	ARKANSAS	1,503	898	2,068	\$726	\$434	-292
	LOUISIANA	1,536	1,283	4,154	\$364	\$308	-66
	NEW MEXICO	156	155	1,232	\$126	\$125	-1
	TEXAS	3,752	3,222	13,666	\$274	\$235	-39
	OKLAHOMA	3,664	1,484	2,942	\$1,245	\$504	-741
REGION VII	IOWA	965	911	3,053	\$316	\$298	-18
	KANSAS	2,348	1,783	2,509	\$935	\$710	-225
	MISSOURI	2,399	2,298	5,488	\$437	\$418	-19
	NEBRASKA	977	924	1,562	\$625	\$591	-34
REGION VIII	COLORADO	716	523	2,848	\$251	\$183	-68
	MONTANA	128	127	714	\$179	\$177	-2
	NORTH DAKOTA	195	189	606	\$321	\$311	-10
	SOUTH DAKOTA	78	75	643	\$121	\$116	-5
	UTAH	294	291	1,509	\$194	\$192	-2
	WYOMING	133	84	600	\$221	\$140	-81
REGION IX	ARIZONA	597	500	3,384	\$176	\$147	-29
	CALIFORNIA	7,156	6,208	26,601	\$269	\$233	-36
	HAWAII	520	523	1,010	\$514	\$517	3
	NEVADA	316	209	933	\$338	\$224	-114
	AMERICAN SAMOA	55	52	40	\$1,375	\$1,100	-275
	GUAM	117	93	275	\$425	\$318	-107
	TRUST TERRITORIES	197	195	205	\$960	\$951	-9
REGION X	ALASKA	412	405	408	\$1,009	\$992	-17
	IDAHO	471	393	758	\$621	\$518	-103
	OREGON	1,144	1,081	2,943	\$388	\$367	-21
	WASHINGTON	2,371	1,836	4,194	\$565	\$437	-128
TOTAL:		121,171	107,438	256,216	\$472	\$419	-53

TABLE EPA - 1

MAY 6, 1975

EPA ESTIMATE
1974 COSTS* REPORTED FOR CONSTRUCTION OF PUBLICLY-OWNED WASTEWATER TREATMENT FACILITIES
(*MILLIONS OF 1973 DOLLARS)

		CATEGORIES							
		TOTAL	I SECONDARY TREATMENT	II MORE STRINGENT TREATMENT	III A CORR. INFIL./ INFLOW	III B MAJOR REHAB	IV A NEW COLLECTOR SEWERS	IV B NEW INTER- CEPTORS	V COMBINED SEWER OVERFLOW
REGION I	CONNECTICUT	1,588	171	94	21	38	311	213	738
	MAINE	575	130	4	1	2	102	139	196
	MASSACHUSETTS	2,964	587	205	33	25	755	533	824
	NEW HAMPSHIRE	740	125	95	23	0	184	164	147
	RHODE ISLAND	447	45	34	3	0	169	108	87
	VERMONT	204	31	60	9	0	33	34	35
REGION II	NEW JERSEY	4,894	1,127	571	199	174	540	904	1,377
	NEW YORK	15,302	1,663	994	509	2,341	2,845	1,946	5,004
	PURTO RICO	603	181	0	14	0	203	187	17
	VIRGIN ISLANDS	44	13	0	1	0	12	18	0
REGION III	DELAWARE	546	65	34	100	67	65	100	114
	MARYLAND	3,642	10	1,465	51	1,132	107	849	27
	VIRGINIA	1,884	364	317	290	32	226	448	206
	WEST VIRGINIA	2,360	91	151	145	5	695	1,078	194
	PENNSYLVANIA	5,454	742	265	91	48	1,246	622	2,439
	DISTRICT OF COLUMBIA	1,052	0	67	40	216	0	2	726
REGION IV	ALABAMA	778	114	165	102	11	192	193	0
	FLORIDA	2,704	566	452	39	44	746	856	0
	GEORGIA	1,519	200	501	12	2	200	319	283
	KENTUCKY	1,824	51	243	53	63	406	355	652
	MISSISSIPPI	494	35	202	45	31	57	122	1
	NORTH CAROLINA	1,480	211	451	52	0	383	382	0
	SOUTH CAROLINA	977	333	45	21	0	227	350	0
	TENNESSEE	1,210	112	293	45	39	332	272	114
REGION V	ILLINOIS	6,234	314	1,635	176	60	466	394	3,188
	INDIANA	2,903	200	348	151	185	332	289	1,397
	MICHIGAN	8,102	106	598	96	456	992	969	4,884
	MINNESOTA	1,330	59	415	52	14	188	233	368
	OHIO	7,773	214	1,302	637	114	592	851	4,062
	WISCONSIN	2,044	164	373	79	134	382	402	508
REGION VI	ARKANSAS	898	0	331	68	0	246	251	1
	LOUISIANA	1,283	302	6	352	97	333	191	0
	NEW MEXICO	155	52	7	3	1	54	38	0
	TEXAS	3,222	9	1,617	207	214	657	399	118
	OKLAHOMA	1,484	0	406	55	551	214	256	0
REGION VII	IOWA	911	132	178	123	9	121	222	125
	KANSAS	1,783	185	67	536	294	316	272	113
	MISSOURI	2,298	400	63	219	0	358	380	878
	NEBRASKA	924	144	18	38	1	26	65	630
REGION VIII	COLORADO	523	78	122	29	24	74	173	23
	MONTANA	127	39	16	5	1	21	35	7
	NORTH DAKOTA	189	51	0	1	0	63	23	50
	SOUTH DAKOTA	75	33	32	1	0	2	7	0
	UTAH	291	195	0	14	2	57	23	0
	WYOMING	84	40	0	0	0	28	15	0
REGION IX	ARIZONA	500	154	8	1	1	231	99	0
	CALIFORNIA	6,208	1,713	1,242	343	47	812	1,149	902
	HAWAII	523	203	27	0	0	84	209	0
	NEVADA	209	30	102	1	0	31	45	0
	AMERICAN SAMOA	52	5	0	0	0	28	18	0
	GUAM	93	36	9	2	0	31	15	0
	TRUST TERRITORIES	195	90	18	1	0	60	25	0
REGION X	ALASKA	405	234	0	4	1	70	85	9
	IDAHO	393	46	71	22	16	102	99	35
	OREGON	1,081	146	1	56	324	130	161	262
	WASHINGTON	1,836	283	56	91	454	299	336	316
TOTAL:		107,438	12,629	15,776	5,287	7,287	17,458	17,923	31,076

TABLE EPA - 2

EPA ESTIMATED

MAY 6, 1975

STATE NEEDS AND PERCENTAGE OF NATIONAL COSTS*
 REPORTED FOR CONSTRUCTION OF PUBLICLY-OWNED WASTEWATER TREATMENT FACILITIES
 (CATEGORIES I, II, III, IVA, IVB AND V)
 (*MILLIONS OF 1973 DOLLARS)

		COSTS*			PERCENTAGE OF NATIONAL TOTALS		
		1973 SURVEY	EPA ASSESSMENT	CHANGE	1973 SURVEY	EPA ASSESSMENT	CHANGE
REGION I	CONNECTICUT	1,409	1,588	+179	2.3435	1.4784	-0.8650
	MAINE	364	575	+211	0.6054	0.5360	-0.0693
	MASSACHUSETTS	1,485	2,964	+1,479	2.4699	2.7597	+0.2897
	NEW HAMPSHIRE	508	740	+232	0.8449	0.6891	-0.1557
	RHODE ISLAND	367	447	+80	0.6104	0.4166	-0.1937
	VERMONT	168	204	+36	0.2794	0.1905	-0.0888
REGION II	NEW JERSEY	3,382	4,894	+1,512	5.6251	4.5551	-1.0699
	NEW YORK	8,032	15,302	+7,270	13.3592	14.2426	+0.8833
	PUERTO RICO	590	603	+13	0.9813	0.5614	-0.4198
	VIRGIN ISLANDS	44	44	+0	0.0731	0.0411	-0.0319
REGION III	DELAWARE	329	546	+217	0.5472	0.5085	-0.0386
	MARYLAND	681	3,642	+2,961	1.1326	3.3902	+2.2575
	VIRGINIA	1,345	1,884	+539	2.2370	1.7541	-0.4828
	WEST VIRGINIA	614	2,360	+1,746	1.0212	2.1971	+1.1758
	PENNSYLVANIA	4,210	5,454	+1,244	7.0023	5.0767	-1.9255
	DISTRICT OF COLUMBIA	1,081	1,052	-29	1.7979	0.9798	-0.8180
REGION IV	ALABAMA	444	778	+334	0.7384	0.7248	-0.0135
	FLORIDA	2,371	2,704	+333	3.9435	2.5172	-1.4262
	GEORGIA	1,031	1,519	+488	1.7148	1.4140	-0.3007
	KENTUCKY	1,032	1,824	+792	1.7164	1.6978	-0.0185
	MISSISSIPPI	268	494	+226	0.4457	0.4604	+0.0146
	NORTH CAROLINA	900	1,480	+580	1.4969	1.3779	-0.1189
	SOUTH CAROLINA	757	977	+220	1.2590	0.9097	-0.3492
	TENNESSEE	695	1,210	+515	1.1559	1.1262	-0.0296
REGION V	ILLINOIS	4,089	6,234	+2,145	6.8010	5.8029	-0.9980
	INDIANA	1,040	2,903	+1,863	1.7297	2.7025	+0.9727
	MICHIGAN	3,325	8,102	+4,777	5.5303	7.5414	+2.0110
	MINNESOTA	1,065	1,330	+265	1.7713	1.2379	-0.5333
	OHIO	2,833	7,773	+4,940	4.7120	7.2355	+2.5234
	WISCONSIN	787	2,044	+1,257	1.3089	1.9025	+0.5935
REGION VI	ARKANSAS	355	898	+543	0.5904	0.8364	+0.2459
	LOUISIANA	451	1,283	+832	0.7501	1.1949	+0.4447
	NEW MEXICO	115	155	+40	0.1912	0.1450	-0.0461
	TEXAS	888	3,222	+2,334	1.4769	2.9993	+1.5223
	OKLAHOMA	624	1,484	+860	1.0378	1.3812	+0.3433
REGION VII	IOWA	502	911	+409	0.8349	0.8485	+0.0135
	KANSAS	671	1,783	+1,112	1.1160	1.6600	+0.5439
	MISSOURI	972	2,298	+1,326	1.6166	2.1394	+0.5227
	NEBRASKA	404	924	+520	0.6719	0.8600	+0.1880
REGION VIII	COLORADO	426	523	+97	0.7085	0.4875	-0.2209
	MONTANA	74	127	+53	0.1230	0.1182	-0.0047
	NORTH DAKOTA	46	189	+143	0.0765	0.1762	+0.0996
	SOUTH DAKOTA	43	75	+32	0.0715	0.0704	-0.0010
	UTAH	225	291	+66	0.3742	0.2713	-0.1028
	WYOMING	40	84	+44	0.0665	0.0784	+0.0118
REGION IX	ARIZONA	238	500	+262	0.3958	0.4662	+0.0703
	CALIFORNIA	6,050	6,208	+158	10.0627	5.7789	-4.2837
	HAWAII	523	523	+0	0.8698	0.4869	-0.3828
	NEVADA	227	209	-18	0.3775	0.1948	-0.1826
	AMERICAN SAMOA	8	52	+44	0.0133	0.0488	+0.0354
	GUAM	22	93	+71	0.0365	0.0870	+0.0504
	TRUST TERRITORIES	8	195	+187	0.0133	0.1819	+0.1685
REGION X	ALASKA	205	405	+200	0.3409	0.3770	+0.0360
	IDAHO	112	393	+281	0.1862	0.3659	+0.1796
	OREGON	568	1,081	+513	0.9447	1.0065	+0.0617
	WASHINGTON	1,080	1,836	+756	1.7963	1.7088	-0.0874
TOTAL		60,123	107,438	+47,315	100.0000	100.0000	+0.0000

STATE NEEDS AND PERCENTAGE OF NATIONAL COSTS*
 REPORTED FOR CONSTRUCTION OF TREATMENT PLANTS AND INTERCEPTORS
 (CATEGORIES I, II, AND IV B)
 (*MILLIONS OF 1973 DOLLARS)

		COSTS*			PERCENTAGE OF NATIONAL TOTALS		
		1973 SURVEY	EPA ASSESSMENT	CHANGE	1973 SURVEY	EPA ASSESSMENT	CHANGE
REGION I	CONNECTICUT	430	478	+48	1.1974	1.0317	-0.1656
	MAINE	260	273	+13	0.7240	0.5892	-0.1347
	MASSACHUSETTS	761	1,325	+564	2.1191	2.8600	+0.7408
	NEW HAMPSHIRE	339	384	+45	0.9440	0.8288	-0.1151
	RHODE ISLAND	162	187	+25	0.4511	0.4036	-0.0474
	VERMONT	115	125	+10	0.3202	0.2698	-0.0503
REGION II	NEW JERSEY	2,630	2,602	-28	7.3238	5,6164	-1.7073
	NEW YORK	4,165	4,603	+438	11.5984	9,9356	-1.6627
	PUERTO RICO	394	368	-26	1.0971	0.7943	-0.3027
	VIRGIN ISLANDS	32	31	-1	0.0891	0.0669	-0.0221
REGION III	DELAWARE	201	199	-2	0.5597	0.4295	-0.1301
	MARYLAND	583	2,324	+1,741	1.6235	5.0163	+3.3927
	VIRGINIA	998	1,129	+131	2.7791	2,4369	-0.3421
	WEST VIRGINIA	323	1,320	+997	0.8994	2,8492	+1.9497
	PENNSYLVANIA	1,555	1,629	+74	4.3302	3,5162	-0.8139
	DISTRICT OF COLUMBIA	52	69	+17	0.1448	0.1489	+0.0040
REGION IV	ALABAMA	310	472	+162	0.8632	1.0188	+0.1555
	FLORIDA	1,540	1,874	+284	4.4277	4,0450	-0.3826
	GEORGIA	777	1,020	+243	2.1637	2,2016	+0.0378
	KENTUCKY	573	649	+76	1.5456	1,4008	-0.1947
	MISSISSIPPI	223	359	+136	0.6209	0.7749	+0.1539
	NORTH CAROLINA	749	1,044	+295	2.0857	2,2534	+0.1676
	SOUTH CAROLINA	569	728	+159	1.5845	1,5713	-0.0131
	TENNESSEE	467	677	+210	1.3004	1,4613	+0.1608
REGION V	ILLINOIS	2,167	2,343	+176	6.0345	5,0573	-0.9771
	INDIANA	542	837	+295	1.5093	1,8066	+0.2972
	MICHIGAN	1,460	1,673	+213	4.0657	3,6111	-0.4545
	MINNESOTA	538	707	+169	1.4481	1,5260	+0.0278
	OHIO	1,841	2,367	+526	5.1267	5,1092	-0.0174
	WISCONSIN	486	939	+453	1.3533	2,0268	+0.6734
REGION VI	ARKANSAS	224	582	+358	0.6237	1,2562	+0.6324
	LOUISIANA	251	499	+248	0.6989	1,0770	+0.3780
	NEW MEXICO	66	97	+31	0.1837	0,2093	+0.0255
	TEXAS	656	2,025	+1,369	1.8267	4,3709	+2.5441
	OKLAHOMA	485	662	+177	1.3505	1,4289	+0.0783
REGION VII	IOWA	421	532	+111	1.1723	1,1483	-0.0239
	KANSAS	312	524	+192	0.9245	1,1310	+0.2064
	MISSOURI	780	843	+63	2.1720	1,8196	-0.3523
	NEBRASKA	141	227	+86	0.3926	0,4899	+0.0972
REGION VIII	COLORADO	310	373	+63	0.8632	0.8051	-0.0580
	MONTANA	59	90	+31	0.1642	0.1942	+0.0299
	NORTH DAKOTA	30	74	+44	0.0835	0.1597	+0.0761
	SOUTH DAKOTA	40	72	+32	0.1113	0.1554	+0.0440
	UTAH	170	218	+48	0.4734	0.4705	-0.0028
	WYOMING	30	55	+25	0.0835	0.1187	+0.0351
REGION IX	ARIZONA	152	266	+114	0.4232	0.5741	+0.1508
	CALIFORNIA	4,743	4,104	-639	13.2080	8,8585	-4.3494
	HAWAII	439	439	+0	1.2225	0.9475	-0.2749
	NEVADA	205	177	-28	0.5708	0.3820	-0.1887
	AMERICAN SAMOA	7	23	+16	0.0194	0.0500	+0.0305
	GUAM	20	60	+40	0.0556	0.1295	+0.0738
	TRUST TERRITORIES	6	133	+127	0.0167	0.2870	+0.2702
REGION X	ALASKA	153	319	+166	0.4260	0.6885	+0.2624
	IDaho	76	216	+140	0.2116	0.4662	+0.2545
	OREGON	286	308	+22	0.7964	0.6648	-0.1315
	WASHINGTON	536	675	+139	1.4926	1,4569	-0.0356
TOTAL:		35,910	46,328	+10,418	100.0000	100.0000	+0.0000

TABLE EPA - 4

MAY 6, 1975

EPA ESTIMATE
PER CAPITA COSTS REPORTED FOR CONSTRUCTION OF PUBLICLY-OWNED TREATMENT FACILITIES
BASED ON 1990 POPULATION
(CATEGORIES I, II, III, IV A, IV B, AND V)
(*MILLIONS OF 1973 DOLLARS)
(**THOUSANDS OF PEOPLE)

		1973 COSTS*	EPA COSTS*	1990 POPULATION**	1973 COSTS PER CAPITA	EPA COSTS PER CAPITA	CHANGE IN PER CAPITA COSTS
REGION I	CONNECTICUT	1,409	1,588	3,946	\$357	\$402	+.45
	MAINE	364	575	1,142	\$318	\$503	+.185
	MASSACHUSETTS	1,485	2,964	7,052	\$210	\$420	+.210
	NEW HAMPSHIRE	508	740	907	\$560	\$815	+.255
	RHODE ISLAND	367	447	1,134	\$323	\$394	+.71
	VERMONT	168	204	536	\$313	\$380	+.67
REGION II	NEW JERSEY	3,382	4,894	8,822	\$383	\$554	+.171
	NEW YORK	8,032	15,302	21,799	\$368	\$701	+.333
	PUERTO RICO	590	603	3,786	\$155	\$159	+.4
	VIRGIN ISLANDS	44	44	116	\$379	\$379	+.0
REGION III	DELAWARE	329	546	793	\$414	\$688	+.274
	MARYLAND	681	3,642	5,318	\$128	\$686	+.556
	VIRGINIA	1,345	1,884	5,958	\$225	\$316	+.91
	WEST VIRGINIA	614	2,360	1,845	\$337	\$1,279	+.947
	PENNSYLVANIA	4,210	5,454	13,332	\$315	\$409	+.94
	DISTRICT OF COLUMBIA	1,081	1,052	764	\$1,414	\$1,376	-.38
REGION IV	ALABAMA	444	778	3,850	\$115	\$202	+.87
	FLORIDA	2,371	2,704	11,728	\$202	\$230	+.28
	GEORGIA	1,031	1,519	5,667	\$181	\$268	+.87
	KENTUCKY	1,032	1,824	3,741	\$275	\$487	+.212
	MISSISSIPPI	268	494	2,359	\$113	\$209	+.96
	NORTH CAROLINA	900	1,480	5,880	\$153	\$251	+.98
	SOUTH CAROLINA	757	477	3,023	\$250	\$153	+.73
	TENNESSEE	695	1,210	4,800	\$144	\$252	+.108
REGION V	ILLINOIS	4,089	6,234	13,177	\$310	\$473	+.163
	INDIANA	1,040	2,903	6,433	\$161	\$451	+.290
	MICHIGAN	3,325	8,102	10,961	\$303	\$739	+.436
	MINNESOTA	1,065	1,330	4,577	\$232	\$290	+.58
	OHIO	2,833	7,773	13,202	\$214	\$588	+.374
	WISCONSIN	787	2,044	5,218	\$150	\$391	+.241
REGION VI	ARKANSAS	355	898	2,068	\$171	\$434	+.263
	LOUISIANA	451	1,283	4,159	\$108	\$308	+.200
	NEW MEXICO	115	155	1,272	\$93	\$125	+.32
	TEXAS	888	3,222	13,666	\$64	\$235	+.171
	OKLAHOMA	624	1,484	2,942	\$212	\$504	+.292
REGION VII	IOWA	502	911	3,053	\$164	\$298	+.134
	KANSAS	671	1,783	2,509	\$267	\$710	+.443
	MISSOURI	972	2,298	5,488	\$177	\$418	+.241
	NEBRASKA	404	924	1,562	\$258	\$591	+.333
REGION VIII	COLORADO	426	523	2,848	\$149	\$183	+.34
	MONTANA	74	127	714	\$103	\$177	+.74
	NORTH DAKOTA	46	189	606	\$75	\$311	+.236
	SOUTH DAKOTA	43	75	643	\$66	\$116	+.50
	UTAH	225	291	1,509	\$147	\$192	+.43
	WYOMING	40	84	600	\$66	\$140	+.74
REGION IX	ARIZONA	238	500	3,384	\$70	\$147	+.77
	CALIFORNIA	6,050	6,208	26,661	\$227	\$233	+.6
	HAWAII	523	523	1,019	\$517	\$517	+.0
	NEVADA	227	209	933	\$243	\$224	-.17
	AMERICAN SAMOA	8	52	40	\$200	\$1,300	+1,100
	GUAM	22	93	275	\$80	\$338	+.258
	TRUST TERRITORIES	8	195	265	\$32	\$751	+.912
REGION X	ALASKA	205	405	408	\$502	\$992	+.490
	IDAHO	112	393	758	\$147	\$518	+.371
	OREGON	568	1,081	2,943	\$191	\$367	+.174
	WASHINGTON	1,080	1,836	4,154	\$257	\$437	+.180
TOTAL:		60,123	107,438	256,216	\$234	\$419	+.185

APPENDIX A. SURVEY METHODOLOGY

A. Major 1974 Survey Policies:

The following key procedures were adopted to carry out the expanded scope of the Survey:

1. The five categories of needs as reported in the 1973 Survey were retained but with format changes as indicated:

- (a) Costs for Category I or II were to be reported in either one of the Categories, but not in both.
- (b) Category III was split so that needs were reported in two (2) new categories: Category IIIa deals with "Infiltration/Inflow Correction," Category IIIB deals with "Major Sewer System Rehabilitation." Major sewer system rehabilitation needs were not allowed in the 1973 Survey unless they were related to infiltration/inflow correction and based on a completed study. Reporting was allowed in this Survey in Category IIIB for major rehabilitation or replacement of deteriorated sewers necessary to the total integrity and performance of the system.
- (c) Category IV was separated into Category IVa for "New Collectors" and Category IVb for "New Interceptors." This change also combined the cost of appurtenances into the appropriate Category.

2. A new category VI was established to allow reporting of costs for the treatment and/or control of stormwaters. The costs were to be based on corrective actions which when completed would solve actual or anticipated water quality problems in meeting the objectives of P. L. 92-500. The States were allowed to report these costs on either a facility-by-facility, or a State-wide basis, but were encouraged to use the latter method.

3. Survey instructions that limited reporting of needs in 1973 were removed, such as skip instructions that restricted cost reporting. Also, State water quality standards did not require EPA approval by a specified date in order to justify a reported need. However, query questions were retained which would display the status of completion of applicable studies.

4. Needs disallowed in 1973 as a result of one or more of the restrictive guidelines, and any newly identified facility requirements, could be reported in the 1974 Survey.

5. Changes in the 1973 cost data base were to be reported for such causes as imposition of additional effluent limitations, designation of water quality limited segments, or receipt of a grant award for a previously-reported need. As a result of the changes, 1973 cost data would either increase, decrease or be deleted.

6. Wherever reference was made in the Survey form to terms relating to "secondary treatment" they were to be considered for the 1974 Survey synonymous with the term "Best Practicable Waste Treatment Technology (BPWTT)." Also for the purposes of this Survey, BPWTT was to mean secondary treatment under the treatment and discharge alternative, unless higher levels of treatment were required by water quality standards or other requirements. Nothing in these definitions affected the July 1, 1977 secondary treatment requirements of the Act.

7. States had the option of reporting on needs in places of less than 10,000 population outside Standard Metropolitan Statistical Areas (SMSA's) by either using the same sample group used in the 1973 Survey, or reporting this year on a 100 percent basis.

8. For compatibility, all costs in the 1974 Survey were required to be reported in June, 1973 dollars.

9. Costs were to be based on the design of facilities which will serve the projected 1990 resident population.

B. Conduct of the Survey:

The Agency initiated the Survey on January 31, 1974, with the presentation to each of the States of the general outline and the basic survey form.

P. L. 93-243 required that Form EPA-1 used in 1973 be used again for the 1974 Survey. Adjustments to the Form were necessary, to add one new cost category and to eliminate previous reporting restrictions. In addition, improvements were made to lessen the respondent burden. The Survey was designed with the advice of an ad hoc group consisting of EPA Regional Office and State Officials.

As with the 1973 Survey, the State Agency had the option of completing the Survey questionnaires itself, or forwarding them to individual sewerage authorities for completion.

The 1974 Survey Plan retained the concept that the costs reported for all needs must indicate the basis on which the cost estimate was developed. Where available, the States were required to provide data to support their reported needs. Cost estimating guidelines were provided to assist the States in the absence of more valid sources.

A draft copy of the revised questionnaire and guidelines was mailed to the States on March 29, 1974, so that they could commence detailed planning for the conduct of the Survey. Instructional seminars were conducted for the States in the EPA Regional Offices. The official copies of the Survey questionnaire were mailed to the States on April 29, 1974, with instructions that by July 26, 1974, the Forms should all be completed and into the EPA Regional Office. The States were also requested to provide EPA with a report summarizing the costs for each Category of needs, and information relating to the rationale behind any reported needs that were affected by abatement requirements that either they or EPA had not formally approved.

The EPA Regional Office Staff conducted an initial screening of all questionnaires. As these Regional evaluations were completed the questionnaires were processed for keypunching. The Bureau of the Census accomplished the keypunching operation and provided EPA with a tape of the transcribed data from each questionnaire which was used for the final comprehensive Agency analysis.

EPA INDEPENDENT ASSESSMENTS FOR CATEGORIES I, II AND IVB*
(In Millions of Dollars)

APPENDIX B

States	State Corrected	EPA Adjustment	Reasons for Adjustments						Final EPA Adjusted Costs
			Population	Flow/Cap.	Effluent Limitation	Cost Curves	Interceptors	Combination	
TOTALS	52,663	-6,335	-261	-676	-1,951	-1,203	-1,843	-401	46,328
REGION I									
Connecticut	478								478
Maine	273								273
Massachusetts	1,485	-160		-113		-38	-9		1,325
New Hampshire	471	-87				-33	-54		384
Rhode Island	209	-22		-7			-15		187
Vermont	131	-6		-6					125
REGION II									
New Jersey	2,647	-45					-25	-20	2,602
New York	5,322	-719		-100	-298	-113	-85	-123	4,603
Puerto Rico	368								368
Virgin Islands	31								31
REGION III									
Delaware*	199								199
Maryland	2,582	-258				-235	-23		2,324
Pennsylvania	1,882	-253	-86			-138	-29		1,629
Virginia	1,294	-165				-105	-11	-49	1,129
West Virginia	2,133	-813	-35		-157	-7	-614		1,320
Dist. of Columbia	69								69
REGION IV									
Alabama	472								472
Florida	2,174	-300	-75	-30	-16		-55	-124	1,874
Georgia	1,027	-7				(+)2		-9	1,020
Kentucky	649								649
Mississippi	359								359
North Carolina	1,044								1,044
South Carolina	736	-8	-8						728
Tennessee	681	-4					-4		677
REGION V									
Illinois	2,364	-21				-21			2,343
Indiana	897	-60		-23		-24	-13		837
Michigan	1,759	-86		-63		-23			1,673
Minnesota	747	-40				-40			707
Ohio	2,479	-112				-28	-44		2,467
Wisconsin	1,035	-96		-28		-32	-36		919
REGION VI									
Arkansas	929	-347			-266		-41		582
Louisiana	645	-146				-3	-98	-15	499
New Mexico	97								97
Oklahoma	1,250	-584			-63	-96	-429		662
Texas	2,552	-527	-32	-22	-473				2,025
REGION VII									
Iowa	585	-53		-7		-46			532
Kansas	578	-54				-30		-24	524
Missouri	926	-83				-83			843
Nebraska	266	-39	-4			-35			227
REGION VIII									
Colorado	512	-139				-63	-74	-2	373
Montana	90								90
North Dakota	74								74
South Dakota	72								72
Utah	218								218
Wyoming	76	-21	-21						55
REGION IX									
Arizona	266								266
California	4,880	-776			-678		-96	-2	4,104
Hawaii	439								439
Nevada	189	-12				-12			177
American Samoa	26	-3						-3	23
Tr. Terr. of Pac. Islde.	133								133
Guam	60								60
REGION X									
Alaska	319								319
Idaho	216								216
Oregon	308								308
Washington	960	-285		-277			-8		675

* This table shows: (1) the "State Corrected" estimates; (2) the "EPA Adjustment" to the estimates; (3) the reasons for the adjustment (Population, Flow per Capita, Effluent Limitations, Cost Curves, Interceptors, and a Combination of these problems that could not be reported); and (4) the "Final EPA Adjusted Costs." Totals between tables do not compare due to computer rounding.