

**UNITED STATES
ENVIRONMENTAL PROTECTION
AGENCY**



FISCAL YEAR 1974 BUDGET

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Budget Summary

ENVIRONMENTAL PROTECTION AGENCY

Budget Summary

The Environmental Protection Agency's 1974 budget proposal is presented under six appropriations, as follows:

1. Research and Development programs to determine the cause-and-effect relationships of environmental pollutants and to develop and demonstrate technological solutions for pollution abatement and control.
2. Abatement and Control programs which provide for development and implementation of environmental standards, monitoring and surveillance of pollution, pollution control planning, financial and technical assistance to State and local pollution control agencies, assistance to other Federal agencies to minimize impact of their activities on the environment, and support of training of personnel engaged in pollution control activities.
3. Enforcement programs to assist State and local agencies and to carry out direct enforcement activities to assure compliance with Federal pollution control standards, permits, and regulations.
4. Agency and Regional Management activities to provide both centralized and regional leadership and administrative support for EPA's programs.
5. Construction Grants to local public agencies for construction of municipal waste water treatment facilities to assist States and localities in attaining and maintaining water quality standards.
6. Scientific Activities Overseas (Special Foreign Currency Program) support cooperative programs of research and demonstration to find solutions to environmental problems which are of interest to the United States and to cooperating foreign agencies or countries.

Summary of Budget Authority,
Man-Years, and End-of-Year Employment

	1972	1973	1974
<u>Research and Development*</u>			
Budget Authority.....	✓ \$161,806,000	\$173,144,600	\$148,700,200
End-of-Year Employment.....		1,907	1,863
Man-Years.....		1,798	1,808
<u>Abatement and Control*</u>			
Budget Authority.....	✓ 189,458,000	212,034,600	243,100,400
Contract Authority.....	...	50,000,000 ^{a/}	96,000,000 ^{b/}
End-of-Year Employment.....		3,454	3,605
Man-Years.....		3,347	3,442
<u>Enforcement*</u>			
Budget Authority.....	✓ 22,154,300	35,574,400	47,399,600
End-of-Year Employment.....		1,477	1,682
Man-Years.....		1,251	1,556
<u>Agency and Regional Management*</u>			
Budget Authority.....	✓ 29,102,018	46,183,580	50,799,800
End-of-Year Employment.....		1,794	1,834
Man-Years.....		1,696	1,764
<u>Construction Grants</u>			
Budget Authority.....	2,000,000,000	1,900,000,000	490,000,000
Contract Authority.....	...	5,000,000,000 ^{d/}	... c/
End-of-Year Employment.....	...	...	...
Man-Years.....	...	...	...
<u>Scientific Activities Overseas</u>			
Budget Authority.....	7,000,000	4,000,000	4,000,000
End-of-Year Employment.....	...	...	...
Man-Years.....	...	...	...
<u>Revolving Fund</u>			
Budget Authority.....	...	...	...
End-of-Year Employment.....	12	51	51
Man-Years.....	11	50	50
<u>Trust Fund</u>			
Budget Authority.....	45,266	25,000	25,000
End-of-Year Employment.....	...	...	...
Man-Years.....	...	...	...
<u>Advances and Reimbursements^{e/}</u>			
Budget Authority.....	...	...	...
End-of-Year Employment.....	157	164	164
Man-Years.....	150	157	159

	<u>1972</u>	<u>1973</u>	<u>1974</u>
<u>Allocation Account</u>			
Budget Authority.....	...	...	...
End-of-Year Employment.....	8	11	4
Man-Years.....	8	8	4
<u>Total, Environmental Protection Agency</u>			
Budget Authority.....	2,447,565,584	2,370,962,180	494,025,000
Contract Authority.....	...	5,050,000,000	96,000,000
End-of-Year Employment.....	7,835	8,858	9,203
Man-Years.....	7,363	8,307	8,783

a/ Section 208 Areawide Waste Treatment Management Grants. \$50 million contract authority authorized for 1973 not expected to be used.

b/ Section 208 Areawide Waste Treatment Management Grants. \$100 million contract authority authorized for 1974 of which \$4 million budget authority is included in the appropriation request of \$243,100,400 for 1974 leaving an adjusted 1974 contract authority of \$96 million, of which \$21 million is expected to be obligated.

c/ Determination by the President not made, as yet, of the amount of the \$7 billion authorized for 1975 that will be approved for allotment by January 1, 1974, and available for obligation in 1974.

d/ Includes \$2 billion out of 1973 authority and \$3 billion out of 1974 authority.

e/ Included in the President's Budget under Research and Development, Abatement and Control, and Agency and Regional Management.

NOTE: Man-years based on permanent employment.

End-of-Year employment = permanent positions. ✓

*Provided for comparative purposes and represents resources approved under the appropriation "Operations, Research, and Facilities" for activities now carried under this appropriation. In addition, \$28 million was appropriated for Facilities.

Summary of Increase or Decrease
Man-Years and End-of-Year Employment

	<u>1973</u>	<u>1974</u>	<u>Increase or Decrease</u>
<u>Research and Development</u>			
End-of-Year Employment.....	1,907	1,863	-44
Man-Years.....	1,798	1,808	+10
<u>Abatement and Control</u>			
End-of-Year Employment.....	3,454	3,605	+151
Man-Years.....	3,347	3,442	+95
<u>Enforcement</u>			
End-of-Year Employment.....	1,477	1,682	+205
Man-Years.....	1,251	1,556	+305
<u>Agency and Regional Management</u>			
End-of-Year Employment.....	1,794	1,834	+40
Man-Years.....	1,696	1,764	+68
<u>Revolving Fund</u>			
End-of-Year Employment.....	51	51	...
Man-Years.....	50	50	...
<u>Advances and Reimbursements^{a/}</u>			
End-of-Year Employment.....	164	164	...
Man-Years.....	157	159	+2
<u>Allocation Account</u>			
End-of-Year Employment.....	11	4	-7
Man-Years.....	8	4	-4
<u>Total</u>			
End-of-Year Employment.....	8,858	9,203	+345
Man-Years.....	8,307	8,783	+476

^{a/} Included in the President's Budget under Research and Development, Abatement and Control, and Agency and Regional Management,

NOTE: Man-years based on permanent employment.
End-of-year employment = permanent positions.

Research and Development

Research and Development

Purpose

Research and development efforts are conducted through grants, contracts, and agreements with universities, industries, other private commercial firms, nonprofit organizations, State and local governments, and other Federal agencies, as well as through EPA's laboratories.

These efforts are oriented toward producing the scientific knowledge and the tools for regulating, preventing, and abating pollution and are specifically directed to problems of air pollution control, water pollution control, water supply protection, solid and toxic waste management, pesticides control, radiation protection, noise abatement, and interdisciplinary studies. Activities encompass research on the effects of pollutants on man, animal, and aquatic life, plant materials, and the general environment; research on processes such as dispersion that affect pollution; the development of new and improved sampling and analytical methods and instruments for measuring pollutants; and the development and demonstration of new and improved technology for preventing and controlling pollution and recovery of materials from wastes. Included with the research and development program is the overall management and support of the program.

<u>Budget Authority</u>	<u>1972^{a/}</u>	<u>1973</u>	<u>1974</u>
Air.....	\$54,867,300	\$67,381,900	\$57,096,700
Water Quality.....	47,105,400	48,113,900	46,723,300
Water Supply.....	2,200,000	2,266,300	2,303,600
Solid Wastes.....	22,777,500	17,071,000	2,200,000
Pesticides.....	3,519,000	5,251,800	5,441,000
Radiation.....	2,256,300	2,287,000	2,470,500
Noise.....	64,000	280,800	550,000
Interdisciplinary.....	9,604,800	13,768,200	14,472,200
Program Management and Support.....	19,411,700	16,723,700	17,442,900
Total.....	161,806,000	173,144,600	148,700,200

<u>Manpower Resources</u>	<u>1973</u>	<u>1974</u>
End-of-Year Employment	1,907	1,863
Man-Years.....	1,798	1,808

^{a/} Provided for comparative purposes and represents resources approved under the appropriation "Operations, Research, and Facilities" for activities now carried under this appropriation.

Air

Research and Development

Air

Purpose

The air research and development program encompasses (1) research on the effects of air pollutants on man, animals, plants, materials, and the general environment, (2) research on transport processes affecting the dispersion of air pollution, (3) the development of new and improved sampling and analytical methods, and (4) the development and demonstration of new and improved technology for preventing and controlling air pollution.

The research on pollution effects and processes is directed toward development of scientific information to establish adequately protective but economically feasible air quality and emission standards. The research and development of improved sampling and analytical methods and improved control technology is directed toward providing the means for complying with established standards.

In short, the air research and development program is a "foundation" program oriented toward producing the scientific knowledge and the tools for regulating, abating, and preventing air pollution.

	<u>1973</u>	<u>1974</u>	<u>Increase or Decrease</u>
<u>Budget Authority</u>			
Processes and Effects	\$29,623,900	\$29,848,500	+\$224,600
Control Technology...	37,758,000	27,248,200	-10,509,800
Total.....	67,381,900	57,096,700	-10,285,200
<u>End-of-Year Employment</u>			
Processes and Effects	316	316	...
Control Technology...	128	128	...
Total.....	444	444	...
<u>Man-Years, Total.....</u>	428	432	+4

Summary of Increases and Decreases

	<u>1973</u>	<u>1974</u>	<u>Change</u>
<u>Processes and Effects</u>	<u>\$29,623,900</u>	<u>\$29,848,500</u>	<u>+\$224,600</u>

To provide for the increased salary costs of the 1973 pay raise.

<u>Control Technology</u>	<u>37,758,000</u>	<u>27,248,200</u>	<u>-10,509,800</u>
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Sulfur oxides control...	18,971,500	11,103,800	-7,867,700
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A decrease made possible by the completion of funding of first-generation sulfur oxides control technology demonstrations. The funding of less costly research and early development of second-generation technology will continue.

Mobile source control...	10,021,900	7,184,000	-2,837,900
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A decrease resulting from reduced 1974 funding requirements for the further development and demonstration of one of four candidate Rankine engines capable of meeting the 1975/1976 automobile emission standards prescribed by the Clean Air Act, as amended.

Other control technology	8,764,600	8,960,400	+195,800
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To provide for the increased salary costs of the 1973 pay raise and to provide a slight expansion of efforts to develop new and improved control technology for hazardous material emissions.

Research and Development

Air Processes and Effects

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Processes and effects	\$29,623,900	\$29,848,500	+\$224,600

Research on air pollution processes and effects is directed toward the development of scientific information for the establishment of ambient air quality standards and emission standards. This is accomplished by research in the areas of health effects, through epidemiological and toxicological studies of the effects of pollutants on man and animals; meteorology, by investigations of atmospheric chemistry and physics; instrumentation development, by providing standardized and calibratable instrumentation and/or methodology for measurement of the concentrations of pollutants in both the ambient air and at the sources of the pollutants; and pollution processes, by describing and predicting dispersion, transformation, and ultimate disposition of pollutants in the atmospheric transfer cycle from source to receptor.

Purpose of Increase

To provide for the increased salary costs of the 1973 pay raise.

Significant 1973 Accomplishments

- Completed a draft of revised criteria document for oxides of sulfur.
- Completed an evaluation of the health effects of environmental concentrations of total suspended particulates and respirable suspended particulates.
- Developed an instrumentation method for the continuous monitoring of sulfur dioxide from stationary sources.
- Registered 800 chemical additives (by type and quantity) contained in gasoline as required under the Clean Air Act, as amended.

1974 Objectives

- Develop reference methods for compliance testing of stationary sources for all industries in Category II of the New Source Performance Standards.
- Promulgate regulations for the demonstration of a continuous monitoring capability of stationary sources in industries covered by the New Source Performance Standards.
- Update health effects data in support of the standards for carbon monoxide, nitrogen dioxide, sulfur dioxide, and ozone.
- Determine the toxicities of heavy metals which may be found in the atmosphere.

Research and Development

Air Control Technology

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Sulfur oxides control..	\$18,971,500	\$11,103,800	-\$7,867,700

The program encompasses the research, development, and demonstration of new and improved methods for abating and controlling the emissions of sulfur oxides from stationary sources. Approximately 75 percent of sulfur oxides emissions originate from stationary sources. Consequently, the control of these emissions is essential to achieving compliance with current ambient air quality standards for sulfur oxides.

To date, this activity has focused on the development of technology for controlling emissions from utilities and other large emitters. In the next several years, greater attention will be devoted to developing technology for controlling emissions from urban and other industrial sources.

Purpose of Decrease

By the end of 1973, EPA will have completed the major funding of several demonstrations of flue gas desulfurization processes for utilities and other large emitters. During 1974, the program will be devoted to the continued research and early development of less mature technology for controlling sulfur oxides emissions from smaller industrial sources and urban sources. Since the 1974 effort will not involve the funding of major demonstrations--the expensive element of the research, development and demonstration sequence--the 1974 resource requirements will be less than those of 1973.

Significant 1973 Accomplishments

- Continued but accelerated development and demonstration of several clean fuels projects including the mechanical and chemical desulfurization of coal, the control of sulfur oxides through molten iron combustion, and the fluidized gasification/desulfurization of residual oil.
- Developed the adaption of flue gas cleaning technologies to the control of sulfur oxide emissions from several industrial processes.

1974 Objectives

- Complete the four ongoing flue gas desulfurization demonstrations (which have been funded in 1973 and prior years).
- Develop emission control capabilities for industrial and urban combustion sources.
- Improve second generation control capabilities for large combustion sources.
- Develop control technologies for specific industrial processes which are major emission contributors in specific localities.

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Mobile source control..	\$10,021,900	\$7,184,000	-\$2,837,900

This program is aimed at the development of efficient low-polluting alternative automotive power systems; the evaluation of alternative power systems and automotive fuels; and dissemination of technical and economic data for use in the development of long-term national and regional control strategies relating to emissions and energy conservation aspects of transportation systems. This program supports the development of emission standards and regulations for mobile sources, the testing and enforcement of such standards and regulations, and the development of transportation plans to achieve compliance with ambient air quality standards.

Purpose of Decrease

In 1973, development proceeded on four Rankine engines as candidate alternative automotive power systems capable of meeting the 1975/1976 automobile emission standards stipulated by the Clean Air Act, as amended. During 1974, one of these engines will be selected for continued development and demonstration. This 1974 effort will be less costly and this accounts for the planned decrease in funding.

Significant 1973 Accomplishments

- Began testing of preprototype Rankine cycle systems which incorporate substantial improvements in combustor design, working fluids and lubricants, and condenser design.
- Completed a gas turbine engine demonstration which meets 1976 emission control levels.
- Received prototype stratified charge engines for testing and demonstration during 1974.

1974 Objectives

- Complete evaluation of preprototype Rankine cycle candidates.
- Select a single type of Rankine system for demonstration in a prototype vehicle.
- Produce a comprehensive report assessing the status and prospects of alternative systems for automotive propulsion.

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Other control technology	\$8,764,600	\$8,960,400	+\$195,800

This activity encompasses the research, development, and demonstration of new and improved technology for the control of particulates, nitrogen oxides, hazardous substances, and the emission of other air pollutants (except sulfur oxides) from stationary sources. These efforts are supportive of and essential to the development and enforcement of National Emission Standards for Hazardous Pollutants, New Source Performance Standards, and National Ambient Air Quality Standards.

Purpose of Increase

To provide for the increased salary costs of the 1973 pay raise and to provide for a slight expansion of current efforts to develop new and improved control technology for hazardous material emissions.

Significant 1973 Accomplishments

- Completed theoretical studies, including mathematical modeling of electrostatic precipitation relating to the development of improved technologies for controlling particulate emissions.
- Conducted bench-scale laboratory tests which gathered basic engineering data on fabric filter characterization, wet scrubbing techniques, and electrostatic precipitation designs for the control of particulate emissions.
- Developed considerable engineering data on nitrogen oxide combustion kinetics and on the practicality of modifying processes to achieve control of nitrogen oxides.

1974 Objectives

- Expand and accelerate the development of wet scrubbing, electrostatic precipitation, and fabric filtration processes to maximize their efficiency and applicability for controlling fine particulates,
- Characterize and quantify the fine particulate control capabilities of conventional control equipment.
- Conduct bench-scale investigation of multiple pollutant control approaches and initiate pilot-scale demonstrations of control technologies for hazardous materials.
- Develop and demonstrate test units to define technical and economic feasibility of commercial combustion system hardware for the control on nitrogen oxides.

Research and Development

Water Quality

Purpose

The water quality research and development program embodies: (1) research on the effects of water quality on water uses and on animal and aquatic life; (2) research on the processes which influence the movement, dispersion, and fate of water pollutants; (3) the development of new and improved sampling and analytical methods and instrumentation for measuring water quality and effluents; and (4) the development of new and improved technology for abating and preventing water pollution. The effects and processes research is oriented toward development of water quality standards. The analytical methods and instrumentation development is directed toward providing new and improved techniques for water quality and effluent monitoring and surveillance of standards compliance. The purpose of the control technology program is to improve existing processes and to develop new and more effective and economical methods of wastewater treatment. These programs will demonstrate best-available and closed-loop systems and will serve as a sound technical basis for the establishment and enforcement of effluent guidelines and water quality standards. Like the air research and development program, this is a "foundation" program providing the scientific knowledge and the technology for carrying out an effective national water pollution control program.

	<u>1973</u>	<u>1974</u>	<u>Increase or Decrease</u>
<u>Budget Authority</u>			
Processes and Effects.....	\$19,689,900	\$20,891,400	+\$1,201,500
Control Technology.....	28,424,000	25,831,900	-2,592,100
Total.....	48,113,900	46,723,300	-1,390,600
<u>End-of-Year Employment</u>			
Processes and Effects.....	353	353	...
Control Technology.....	300	300	...
Total.....	653	653	...
<u>Man-Years, Total.....</u>	589	633	+44

Water Quality

Summary of Increases and Decreases

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Processes and Effects	\$19,689,900	\$20,891,400	+\$1,201,500

To provide for the development of analytical test procedures as required by the new water legislation, to further the research of water pollution and nutrient pollution affecting lakes, including the Great Lakes, and to provide for the increased salary costs of the 1973 pay raise.

Control Technology	28,424,000	25,831,900	-2,592,100
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Industrial sources.....	3,584,600	5,429,600	+1,845,000
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To expand and accelerate the development and demonstration of new and improved industrial wastewater control technology to meet requirements of the Federal Water Pollution Control Amendments of 1972, and to provide for the increased salary costs of the 1973 pay raise.

Effluent guidelines.....	4,909,500	...	-4,909,500
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A decrease reflecting both the completion of first-stage contracts for the development of effluent guidelines and the comparative transfer to Abatement and Control, Water Quality.

Control technology.....	19,929,900	20,402,300	+472,400
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To slightly expand and accelerate the development of new and improved control technology for both point and non-point sources of pollution and to provide for the increased salary costs of the 1973 pay raise.

Research and Development

Water Quality Processes and Effects

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Processes and effects.....	\$19,689,900	\$20,891,400	+\$1,201,500

EPA has over the past few years been deeply involved in research to provide data and pertinent information for the establishment of water quality criteria that will provide a sound scientific basis for setting standards for such water uses as public water supply, recreation, fish and wildlife propagation, agricultural supply, and industrial purposes. In-depth studies have been carried out to determine the effects of physical, chemical, biological, microbiological, pesticidal, and radiological pollutants on water uses. Related to the effects of various pollutants in water are questions concerning the types, movement, and ultimate fate of pollutants in fresh surface, ground, marine, and large lake waters. Serious deficiencies exist in techniques for tracing pollutants and how they interact within the total ecosystem. This information is needed to relate the concentration and form of pollutants to the size, character, composition, and location of their sources in order to establish effective water quality standards, treatment, and control requirements.

Purpose of Increase

To provide for the development of new and revised analytical procedures as required by the Federal Water Pollution Control Amendments of 1972, to further research on water pollution and nutrient pollution affecting lakes, including the continuation of the expanded Great Lakes research effort initiated in 1973 and continuation of the National Eutrophication Program, and to provide for the increased salary costs of the 1973 pay raise.

Significant 1973 Accomplishments

- Developed quantitative methods for design of water quality surveillance systems.
- Operated and tested a treatment plant designed to demonstrate the restoration of an eutrophic lake by removal of phosphorus from municipal water.
- Established procedures for estimating plume size and delineating potential thermal discharge mixing zones.
- Provided interim test procedures for the analysis of pollutants as required by the Federal Water Pollution Control Amendments of 1972.

- Completed, in cooperation with Canada and other agencies, the field phase of the International Field Year on Lake Ontario.
- Determined the chemical and biological conditions of Lake Ontario which contributes to comprehensive understanding of lake and pollution processes.
- Determined effects of nutrient concentrations on growth of algae in Lake Michigan.

1974 Objectives

- Develop alternative methods of waste disposal in the New York Bight.
- Evaluate, refine, replace, and add analytical test procedures required by the Federal Water Pollution Control Amendments of 1972.
- Prepare and publish water costs and benefits as required by the new water Act.
- Quantify health and recreational benefits from water pollution control.
- Develop scientific guidelines for control of nutrients and eutrophication, oil, dredge spoils and thermal discharges in the Great Lakes.
- Assess effectiveness of recent advanced waste treatment plants toward improving water quality of Lakes Michigan, Erie, and Ontario.
- Determine, in joint studies with Canada, the upper Great Lakes reference data on the chemical and biological condition of Lakes Huron and Superior.

Research and Development

Water Quality Control Technology

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Industrial sources.....	\$3,584,600	\$5,429,600	+\$1,845,000

This activity involves the development and demonstration of new and improved technology for controlling and treating industrial wastewaters. The products of this effort provide the means of upgrading of industrial wastewater treatment capabilities and the bases for establishing effluent guidelines, developing waste treatment conditions for waste discharge permits, and for setting treatment and discharge requirements through enforcement and other abatement activities.

The Federal Water Pollution Control Amendments of 1972 places a larger burden on the program by calling for the installation of best-available control technology by 1983. The achievement of the goal will require a significant improvement of existing waste treatment and control technologies for many types of industries. This program is directed toward filling these technological gaps.

Purpose of Increase

To increase and accelerate the development and demonstration of new and improved industrial wastewater control technology in response to the requirements and provisions of the Federal Water Pollution Control Amendments of 1972.

Significant 1973 Accomplishments

- Demonstrated a hot air blanching technique for the canning industry which will result in reduction of water consumption and waste loadings of 99 percent and 99.9 percent respectively.
- Developed a technique using dry caustic peeling in the fruit and vegetable processing industries wherein water consumption is reduced approximately 85 percent and waste loadings by 70 percent.

- Developed a new biological process for the treatment of highly alkaline and brine-containing wastewaters in a glycol production facility which has demonstrated the feasibility of reducing the waste loadings by more than 90 percent.

1974 Objectives

- Demonstrate processes to close the water loop in paper mills.
- Demonstrate chemical-biological treatment of joint municipal-industrial wastes.
- Demonstrate treatment and water reuse from textile plants.
- Demonstrate removal of contaminants and recycling of water in organic chemical plants.

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Effluent guidelines.....	\$4,909,500	...	-\$4,909,500

This activity involves the development of effluent guidelines for best available and best practicable treatment pursuant to requirements of the Federal Water Pollution Control Amendments of 1972. These guidelines will be used as the basis for issuing waste discharge permits except in basins where water quality standards are limiting. The activity encompasses the support of contractual studies to collect all available information about the waste loads and characteristics and the waste treatment processes available and potentially available for individual types of industry.

Purpose of Decrease

A decrease reflecting both the completion of first-stage contracts for the development of effluent guidelines and the comparative transfer to Abatement and Control Water Quality. Prior to early 1973, the development of effluent guidance and guidelines was funded as a Research and Development activity. Because of the organizational reassignment of this function to the Office of Air and Water Programs, it is now more appropriate to fund the function as an Abatement and Control activity.

Control technology...	\$19,929,900	\$20,402,300	+\$472,400
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This activity encompasses the development and demonstration of new and improved technology for treating and controlling municipal, agricultural, oil and hazardous materials, mining, storm and combined

sewer, and other waste discharges. The results of this work provide the means of upgrading pollution control technology to enable compliance with water quality standards, effluent guidelines where applicable, and enforcement and other abatement requirements. Also, as appropriate, the results of this work are used in the development of effluent guidelines, industrial pretreatment requirements, and oil and hazardous materials regulations required by the Federal Water Pollution Control Act, as amended.

Purpose of Increase

To slightly expand and accelerate the development of new and improved control technology for both point and non-point sources of pollution and to provide for the increased salary costs of the 1973 pay raise.

Significant 1973 Accomplishments

- Completed an indepth study on sewer infiltration and prepared a control manual which is being made available to the construction grants program and municipalities.
- Initiated construction phase on the Oil and Hazardous Material Environmental Test Facility which, when completed, will be capable of evaluating the behavior and effectiveness of treatment and control processes for oil and hazardous material spills.
- Completed the demonstration of a pressurized sewer concept which now makes it economically possible to reduce eutrophication of some lakes and provide sewers in difficult areas.
- Demonstrated a low cost method of upgrading approximately 3,500 municipal plants utilizing mineral addition to trickling filters.

1974 Objectives

- Conduct full-scale demonstrations of physical-chemical and biological treatment, electrochemical chlorination, and other processes for up-grading municipal waste treatment technology.
- Develop processes for removing organic contaminants in the treatment of drinking waters.
- Demonstrate central community facilities for safe water and wastewater control for use in native villages in Alaska.
- Demonstrate control of animal feed lot pollution, salt pollution from irrigation, and land runoff of agricultural wastes.
- Develop processes for the treatment of acid mine drainage.

Water Supply

Research and Development

Water Supply

Purpose

The water supply research and development program provides for research on the effects of water quality on human health and the development of analytical methods for assessing the quality of drinking and recreational waters and development of water treatment methods for noxious and toxic components of water for which current methods are ineffective. The objective of the program is to provide the scientific knowledge necessary for establishing drinking water standards and standards for recreational water use.

	<u>1973</u>	<u>1974</u>	<u>Increase or Decrease</u>
<u>Budget Authority</u>			
Processes and Effects	\$2,266,300	\$2,303,600	+\$37,300
Total.....	2,266,300	2,303,600	+37,300
<u>End-of-Year Employment</u>			
Processes and Effects	83	83	...
Total.....	83	83	...
<u>Man-Years, Total.....</u>	80	81	+1

Summary of Increases and Decreases

	<u>1973</u>	<u>1974</u>	<u>Change</u>
<u>Processes and Effects</u>	<u>\$2,266,300</u>	<u>\$2,303,600</u>	<u>+\$37,300</u>

To provide for the increased salary costs of the 1973 pay raise.

Research and Development

Water Supply Processes and Effects

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Processes and effects...	\$2,266,300	\$2,303,600	+\$37,300

Considerable research remains to be done in expanding the body of scientific knowledge on the effects of water pollutants on human health in order to develop a sound base for establishing and revising drinking water standards and standards for recreation and shellfish growth. An aggressive water health effects research program will continue to investigate the following areas: (1) the development of methods to identify the health effects of pollutants in public water supplies; (2) the determination of the frequency of occurrence and the types of health effects caused by organic, inorganic, and biological contaminants present in water supplies; (3) the development of methods to insure the delivery of microbiologically safe drinking water and to prevent the deterioration of water during storage and distribution; and (4) the development of criteria for protecting recreational waters and fish and shellfish growing areas.

Purpose of Increase

To provide for the increased salary costs of the 1973 pay raise.

Significant 1973 Accomplishments

- Determined that little health hazard from mercury exists at this time in drinking water.
- Demonstrated that the use of regenerable activated alumina is effective for removing both arsenic and fluoride from drinking water.
- Initiated development of an automatic potable water monitor to measure temperature, dissolved oxygen, PH, conductivity, nitrate, hardness, fluoride, chloride, turbidity, free chlorine residual, gross organics, corrosion, cadmium, lead, and copper.

1974 Objectives

- Develop water quality criteria for selected chemical and biological pollutants which concentrate in fish and shellfish.
- Determine maximum safe concentration levels for both short-term and long-term exposure of lead, cadmium, arsenic, mercury, and maganese in drinking water.
- Correlate observed occurrence and type of virus in selected water supplies which have reported out-breaks of waterborne disease.
- Evaluate efficiency of selected disinfectants against virus and other pathogenic organisms.

Solid Wastes

Research and Development

Solid Wastes

Purpose

EPA's research and development efforts in the solid waste area over the past few years have been directed toward the development of improved solid waste management and disposal technology and resource recovery technology. The benefits from this effort are and will be realized in the form of a reasonable array of technologies which will enable local agencies to effectively and economically handle their solid waste problems. Having achieved this objective, the solid waste research and development program will be reoriented toward attacking critical problems of toxic and hazardous solid wastes. These are problems of high priority that can best be dealt with at the Federal level.

	<u>1973</u>	<u>1974</u>	<u>Increase or Decrease</u>
<u>Budget Authority</u>			
Processes and Effects.	\$285,000	\$1,500,000	+\$1,215,000
Control Technology....	16,786,000	700,000	-16,086,000
Total.....	17,071,000	2,200,000	-14,871,000
<u>End-of-Year-Employment</u>			
Processes and Effects.	7	13	+6
Control Technology....	63	10	-53
Total.....	70	23	-47
<u>Man-Years, Total.....</u>	66	22	-44

Summary of Increases and Decreases

	<u>1973</u>	<u>1974</u>	<u>Change</u>
<u>Processes and Effects</u>	<u>\$285,000</u>	<u>\$1,500,000</u>	<u>+\$1,215,000</u>
To expand research on the health effects of toxic and hazardous solid wastes disposal practices and on the fate of waste materials after disposal.			
<u>Control Technology</u>	<u>16,786,000</u>	<u>700,000</u>	<u>-16,086,000</u>
Hazardous solid wastes..	232,700	700,000	+467,300
To expand and accelerate the development of safe disposal methods for toxic and hazardous wastes.			
Other control technology	16,553,300	...	-16,553,300
A decrease reflecting the termination of the development and demonstration of resource recovery and recycling technology for municipal solid wastes.			

Research and Development

Solid Wastes Processes and Effects

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Processes and effects..	\$285,000	\$1,500,000	+\$1,215,000

This program encompasses identification and evaluation of potentially toxic and pathogenic products of solid wastes incineration, landfilling and recycling operations, and the assesment of their public health impact. Research investigation of the pathogenic contamination of groundwater by toxic solid waste leachates, the hazards of sludge and solid waste incineration and the movement of viruses and pathogenics from disposal sites will lay the scientific foundation for the development of standards to protect the public health.

The program also involves the evaluation of deep well disposal of toxic materials, the study of groundwater contamination from sanitary landfill operations, and the study of the fate, in soils and groundwaters, of heavy metals and other hazardous materials from sludge and industrial waste by-products.

This research will add to the base of knowledge necessary to support standards relating to the toxic and hazardous impact of solid wastes upon the general public.

Purpose of Increase

To expand research on the health effects of toxic and hazardous solid waste disposal practices and on the ultimate fate of waste materials after disposal.

Significant 1973 Accomplishments

- Conducted studies on the movement of pathogenic organisms and sanitary landfills, and determined the effects of compost on selected soils and plants.

1974 Objectives

- Develop preliminary assessment of relative potential toxicity and pathogenicity of incinerator, landfill, and recycling products.
- Determine the effects of solid waste disposal practices on the health of sanitation and site employees and on community segments located near solid waste processing and disposal facilities.
- Develop preliminary guidelines for deep well disposal of toxic wastes.

Research and Development

Solid Wastes Control Technology

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Hazardous solid wastes...	\$232,700	\$700,000	+\$467,300

This program involves the development of control techniques and technology for the safe disposal of toxic and hazardous solid wastes. This effort will support the setting of meaningful and comprehensive standards and regulations and will provide the means for evaluating and fostering improvement of disposal practices for toxic and hazardous solid wastes. Initial emphasis will center on disposal techniques for materials exhibiting known hazardous effects, and control and disposal techniques to augment new and ongoing effects research.

Purpose of Increase

To expand and accelerate the development of safe disposal methods for toxic and hazardous wastes.

Significant 1973 Accomplishments

- Completed construction of solid waste test cells at experimental landfill in Boone County, Kentucky, which will make it possible to quantify characteristics of landfill gas emissions, leachate formation, and determine the contents and migration of toxic and hazardous materials.
- Initiated a program to determine the best available alternatives for disposal of hazardous materials and the potential need for national disposal sites.

1974 Objectives

- Develop disposal methods for hazardous materials and processing residues.
- Develop biological and chemical detoxification processes.
- Investigate disposal options and resultant pollution levels (wet oxidation, fluidized bed incinerators, irradiation, molten salt technology).

- Investigate stabilization of toxic materials such as the stabilization of arsenicals by polymerization.
- Identify control levels and disposal techniques for known toxic and hazardous materials to facilitate development of meaningful and supportable regulations.

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Other control technology..	\$16,553,300	...	-\$16,553,300

In 1973 the solid waste program shifted its emphasis from new technology development to the upgrading of current solid waste management practices aimed at overcoming the problems of high cost and environmentally offensive disposal practices. Efforts were directed primarily toward determining means of recovering materials and energy from solid waste, determining the public's attitude on resource recovery and waste reduction at its source, and developing suitable techniques for the disposal of all forms of nonrecyclable solid wastes including extremely hazardous wastes. Analytical and pilot plant facilities were maintained to conduct and support research studies designed to develop new waste handling or processing methods and to develop resource recovery procedures and appropriate ultimate disposal methods for solid waste. General categories of projects included land disposal; the disposal of hazardous wastes; improvements in collection, transportation, processing and separation; incinerators; recycling; systems; and behavioral studies.

Purpose of Decrease

A decrease which reflects the termination of demonstrations of resource recovery and recycling systems for municipal solid wastes. Over the past several years, EPA has supported the development of the major conceptual alternatives for recovery and recycling of solid wastes. The demonstration of these systems is providing a sufficient range of suitable methods and techniques that can be utilized by municipalities if they can obtain markets for the recovered materials. The decrease also reflects a termination of further research, development, and demonstration of technology, the collection, transportation, processing, and separation of municipal solid wastes. The technology thus far developed in these areas is deemed sufficient to meet the present needs of solid waste management systems.

Significant 1973 Accomplishments

- Completed a prototype 100-ton per day pilot plant to burn the combustible component of municipal refuse and use the resulting hot gas to generate electricity.
- Installed an in-house incinerator to simulate municipal incinerators to provide capability to study combustion processes and effluents stream contaminants.
- Initiated development of landfill-sealing liner materials from low cost waste byproducts.
- Evaluated methods to determine treatability of leachate at pilot scale.
- Studied methods to determine feasibility of spray irrigation as a leachate treatment method.
- Initiated research to identify benefits of solid waste management, particularly regarding virgin materials use and recycling.
- Investigated processes by which solid waste control practices affect groundwaters.

1974 Objectives

- Complete demonstrations of resource recovery and recycling systems started in prior years.

Pesticides

Research and Development

Pesticides

Purpose

EPA conducts an extensive research program on pesticides in the environment to determine more precisely their effects on human, animal, and aquatic life. A variety of clinical and behavioral studies are needed to determine the effects of various chemicals on particular organs, metabolic reactions, reproduction, and behavioral responses. Laboratory toxicological studies involving such activities as bioassays of aquatic animals and organisms are also necessary to determine both acute and chronic toxic effects of pesticides on freshwater and saltwater life. This effort is vital in providing knowledge of the levels and pathways of pesticides contamination and in supporting such other related programs as pesticide label registration, especially since too little is known about the toxic hazards of most pesticide chemicals upon living matter. The program also includes research on new and improved pest control methods to further the search for environmentally safe alternative control techniques. This work is carried out in cooperation with the Department of Agriculture and the National Science Foundation.

	<u>1973</u>	<u>1974</u>	<u>Increase or Decrease</u>
<u>Budget Authority</u>			
Processes and Effects	\$5,251,800	\$5,441,000	+\$189,200
Total.....	5,251,800	5,441,000	+189,200
<u>End-of-Year Employment</u>			
Processes and Effects	114	114	...
Total.....	114	114	...
<u>Man-Years, Total.....</u>	109	111	+2

Summary of Increases and Decreases

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Processes and Effects	\$5,251,800	\$5,441,000	+\$189,200

To provide for the increased salary costs of the 1973 pay raise and to cover the full-year employment costs of new positions filled in 1973.

Research and Development

Pesticides Processes and Effects

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Processes and effects.....	\$5,251,800	\$5,441,000	+\$189,200

A continuing program of research on the effects of pesticides and their metabolites on human health and animal and aquatic life is essential for the support of EPA's other pesticide programs: pesticide label registration, residue tolerance setting, and technical assistance to State, local, and other Federal agencies. Far too little is known about the toxic hazards of most pesticide chemicals both before and after their application. Much needs to be learned about the environmental effects of pesticides as well as the health effects to crop workers who come into contact with foliage sprayed with pesticide chemicals. Also, more needs to be known about the hazards of improper disposal of pesticide containers and waste chemicals.

Purpose of Increase

To provide for the increased salary costs associated with the 1973 pay raise and to cover the full-year employment costs of new positions filled in 1973.

Significant 1973 Accomplishments

- Established electro-encephalograms and quantitation of breakdown products in urine as practical indices of human exposure to pesticides.
- Provided the basis for comparison of the effects of the many pesticidal compounds which EPA must regulate.

1974 Objectives

- Develop and refine industrial safety evaluation protocols required by EPA for pesticide registration.
- Using field data, develop possible approaches to control pests by methods other than applying pesticides.
- Develop methodology to determine the acute and chronic toxicity of carbamates and organo-phosphorus pesticides.

Radiation

Research and Development

Radiation

Purpose

The radiation research and development program supports research on the health effects of human exposure to both ionizing and nonionizing radiation. This work is carried out in support of EPA's radiation standards setting programs.

	<u>1973</u>	<u>1974</u>	<u>Increase or Decrease</u>
<u>Budget Authority</u>			
Processes and Effects...	\$2,287,000	\$2,470,500	+\$183,500
Total.....	2,287,000	2,470,500	+183,500
 <u>End-of-Year Employment</u>			
Processes and Effects...	88	88	...
Total.....	88	88	...
 <u>Man-Years, Total.....</u>	85	85	...

Summary of Increases and Decreases

	<u>1973</u>	<u>1974</u>	<u>Change</u>
<u>Processes and Effects</u>	<u>\$2,287,000</u>	<u>\$2,470,500</u>	<u>+\$183,500</u>

To provide for the increased salary costs of the 1973 pay raise and for a slight expansion in research of the effects of selected radionuclides, including krypton.

Research and Development

Radiation Processes and Effects

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Processes and effects.....	\$2,287,000	\$2,470,500	+\$183,500

The rapid increase in both the number of nuclear power reactors and the number of more powerful transmitting antennae leads to an increasing rate of exposure of the population to sources of ionizing and nonionizing radiation.

The major uncertainty for nonionizing radiation is the potential health effects of chronic exposure to levels below the current standard which is set on the basis of acute exposure leading to thermal effects. The mechanism of interaction of low power level exposure must be understood to verify the current standards.

Purpose of Increase

To provide for the increased salary costs of the 1973 pay raise and for a slight expansion in research of the effects of selected radionuclides, including krypton.

Significant 1973 Accomplishments

- Developed an improved basis for evaluating exposure to strontium, as a function of the age of animals.
- Improved in-vitro technique for screening potential co-carcinogenic agents using highly purified virus DNA.

1974 Objectives

- Determine critical organ of exposure and median lethal dose for selected animals exposed to krypton.
- Complete cytogenetic studies which elucidate abnormalities induced by low level nonionizing radiation exposure.

Noise

Research and Development

Noise

Purpose

The noise research and development effort concentrates on coordinating the research programs of all Federal agencies as mandated by Congress, in order to expand and improve the scientific/technological base in critical areas related to EPA's responsibilities under the Noise Control Act of 1972. In support of EPA's responsibilities related to the standard setting and enforcement role of the Agency, effects research is needed to develop criteria which Congress has stated will be the basis for setting any noise emission standards. There are numerous gaps in knowledge and extensive areas of technical and scientific disagreements that require a continuing research effort. The early development and implementation of the required research coordination program will substantially resolve these problems.

	<u>1973</u>	<u>1974</u>	<u>Increase or Decrease</u>
<u>Budget Authority</u>			
Processes and Effects	\$280,800	\$550,000	+\$269,200
Total.....	280,800	550,000	+269,200
<u>End-of-Year Employment</u>			
Processes and Effects	...	3	+3
Total.....	...	3	+3
<u>Man-Years, Total.....</u>	...	3	+3

Summary of Increases and Decreases

	<u>1973</u>	<u>1974</u>	<u>Change</u>
<u>Processes and Effects</u>	<u>\$280,800</u>	<u>\$550,000</u>	<u>+\$269,200</u>

To expand the noise research program to meet the new requirements of the Noise Control Act of 1972 for coordination and reporting of the noise research activities of all Federal agencies.

Research and Development

Noise Processes and Effects

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Processes and effects...	\$280,800	\$550,000	+\$269,200

The Noise Control Act of 1972 requires that EPA coordinate the noise research programs of all Federal agencies. Presently, the noise research programs of other Federal agencies (approximately 17 components) encompass annual expenditures of \$30 to \$40 million with 80-90 percent of these efforts being devoted to the development of equipment and technology to suppress and control noise. The new Act also requires EPA to prepare periodic reports on the status and progress of the noise research activities of Federal agencies. The EPA noise research program is, in part, devoted to meeting these requirements.

The new Act requires EPA to establish noise emission standards for construction and transportation equipment and for commercial products. To support this standards setting effort, an assessment of the current state-of-art of noise control devices and technology is needed and further research and development of improved technology is required. The remainder of EPA's noise research program is directed toward these objectives.

Purpose of Increase

To expand the noise research program to meet the new requirements of the Noise Control Act of 1972 for coordination and reporting of the noise research activities of all Federal agencies.

Significant 1973 Accomplishments

- Collected and compiled existing data and information on the effects of noise and vibrations on human health and well-being.

1974 Objectives

- Develop a program to coordinate the noise research activities of the Federal agencies.
- Prepare a report on the status and progress of federally supported noise research programs.

- Continue the collection and assessment of information on existing devices and technology for controlling noise.
- Initiate development of improved noise control technology.
- Develop a program to transfer existing research results to potential users of such results.

Interdisciplinary

Research and Development

Interdisciplinary

Purpose

The interdisciplinary research and development program embodies those research activities which cut across media and categorical lines to provide solutions to multimedia problems. This program includes sociological, ecological, and economics research; technology forecasting; technology transfer; monitoring; quality control; and basic research on the effects of long-term, low dose exposures to toxic materials. These activities are focused on providing the basic information and analytical tools necessary for developing effective, comprehensive environmental protection strategies.

	<u>1973</u>	<u>1974</u>	<u>Increase or Decrease</u>
<u>Budget Authority</u>			
Processes and Effects	\$12,587,100	\$13,149,400	+\$562,300
Control Technology...	1,181,100	1,322,800	+141,700
Total.....	13,768,200	14,472,200	+704,000
<u>End-of-Year Employment</u>			
Processes and Effects	180	180	...
Control Technology...	12	12	...
Total.....	192	192	...
<u>Man-Years, Total.....</u>	186	186	...

Research and Development

Interdisciplinary Processes and Effects

Justification

1973

1974

effects.. \$12,587,100 \$13,149,400

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conduct effective research in e

Summary of Increases and Decreases

1973

1974

Processes and Effects \$12,587,100 \$13,149,400 +\$

To provide for the increased salary costs of the 1973 to cover the full-year employment costs of new positi in 1973, and to expand the analytical quality control of the Office of Monitoring.

Control Technology 1,181,100 1,322,800 +

To provide for the increased salary costs of the 1973 and to cover the full-year employment costs of new pc filled in 1973.

The Office of Monitoring has the responsibility to review and audit the several monitoring programs operated by the Offices of Air and Water Programs and Categorical Programs to insure that they are coordinated to achieve maximum effectiveness and to integrate them whenever possible. The Office of Monitoring also operates a quality assurance program to maintain uniform, scientifically-sufficient analytical methods throughout EPA's numerous laboratories and it assesses and disseminates information on new monitoring and analytical methods.

The National Center for Toxicological Research is being developed jointly by the Food and Drug Administration and EPA as a national facility to study the long-term effects of low doses of chemical toxicants. Past research efforts associated with chemical toxicants and their effects on man and the environment have been oriented toward investigation of highly concentrated doses. Concern has arisen in the scientific community regarding the possibility that much more severe damage to man and the environment may be occurring through low dose exposure to chemical toxicants over a long period of time. Research must be undertaken to evaluate such cumulative, low dosage effects.

Purpose of Increase

To provide for the increased salary costs of the 1973 pay raise, to cover the full-year employment costs of new positions filled in 1973, and to expand and improve the quality assurance program for air and water analyses. Relative to this latter item, increased effort will be devoted to the inter-laboratory testing and evaluation of regional and State laboratory capabilities for conducting air sample analyses. This effort was started in 1973 and requires expansion to enable planned decentralization of EPA's air monitoring activities. In addition, the ongoing effort of preparing and distributing reference water samples to laboratories will be expanded to complement the increased water quality monitoring required by the Federal Water Pollution Control Amendments of 1972.

Significant 1973 Accomplishments

Implementation research:

- Developed methods for evaluating impacts of single media regulation (e.g. air standards) on other media (e.g., water, land) in order to identify total environmental impact.
- Identified economically efficient environmental actions through improved estimation of both benefit and cost functions for various levels of pollution abatement.
- Examined feasible systems of economic incentives to complement and strengthen regulatory authority, e.g. sulfur tax proposals.

- Supported standard setting and enforcement in the energy area by participation in Southwest Energy Study of air pollution consequences from fossil fuel plants.
- Contributed to a comparative study of the environmental impacts of alternate fuel cycles.
- Contributed to evaluation of impact statements processed under the National Environmental Policy Act.

Environmental studies research:

- Developed a methodology which communities can use to devise the most effective strategies to achieve mandated air quality standards.
- Continued developmental work on an operating river basin model with the aim of evolving it into a general environmental model.
- Initiated design and development of the Strategic Environmental Assessment System.

Monitoring:

- Initiated an interlaboratory testing and evaluation program.
- Continued efforts of preparing and distributing water reference samples to laboratories.
- Initiated program to utilize expertise of other government agencies in testing and evaluating new remote and contact sensors under ambient conditions in conjunction with on-site assays.

National Center for Toxicological Research:

- Completed conversion of former military facility at Pine Bluff, Arkansas, to a civilian research center on toxic effects of long-term, low dose exposures to chemicals.
- Completed the establishment of specific pathogen-free laboratory animal breeding colony.
- Initiated the establishment of experimental protocols for core program studies.
- Initiated preliminary experiment to provide basis for chronic lifetime studies at the 0.01 effective dose level.
- Completed a diagnostics laboratory capable of monitoring microbial and viral profiles of facilities and laboratory animals.

- Completed a diet preparation facility capable of mixing chemicals with feed under sterile conditions.
- Initiated pathology, teratology, and animal care training programs to develop capabilities not currently existing.

1974 Objectives

Implementation research:

- Develop economic and social systems alternatives to complement and strengthen EPA pollution abatement in the energy sector.
- Develop methods for analyzing and improving the reliability of environmental management systems based on standards.
- Evaluate improvement of standard setting and enforcement to achieve environmental quality through impact analysis, especially of the secondary impacts of activities (e.g., infrastructure investments).

Environmental studies research:

- Bring to operational status the prototype version of the Strategic Environmental Assessment System.
- Prepare and issue a handbook for the use of local planners synthesizing the research results achieved in developing a methodology which communities can use to explore the most effective strategies they can utilize in achieving mandated air quality standards.

Monitoring:

- Implement an Agency-wide standardization and quality control program that covers all environmental monitoring activities of the EPA.
- Extend above programs, insofar as possible, to cover State and local environmental monitoring activities.
- Substantially increase interlaboratory testing and evaluation programs.
- Complete evaluation of methods for air measurement as required by legislation.
- Implement a data audit and improvement program to ensure that all of EPA's monitoring data is void of errors, readily accessible to all users, and in the appropriate format.

- Develop techniques for improving the utility of data for multiple analytical purposes.
- Assure development and testing of new and improved environmental monitoring techniques.
- Assure efficient and effective operation of monitoring networks in support of EPA's research program.

National Center for Toxicological Research:

- Continue the development of experimental protocols for core program studies.
- Continue experiments on chronic lifetime studies at the 0.01 effective dose level.
- Continue pathology, teratology, and animal care training programs at the Center.

Research and Development

Interdisciplinary Control Technology

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Control technology.....	\$1,181,100	\$1,322,800	+\$141,700

This activity represents EPA's Technology Transfer Program. In the coming decade, billions of dollars will be invested in the construction of pollution control and abatement facilities. The objectives of the Technology Transfer Program is to effectively impact the construction and operation of these facilities to ensure that the latest viable technologies are transferred to potential users to eliminate the possibility of an enormous investment in obsolete facilities. The Technology Transfer Program is designed to bridge the gap between research and full-scale use by evaluating and transferring newly developed successful technology to industries, consulting engineers, municipal and State design engineers, administrative decision-makers, and others exerting influence over the design and construction of pollution control facilities.

Purpose of Increase

To provide for the increased salary costs of the 1973 pay raise and to cover the full-year employment costs of new positions filled in 1973.

Significant 1973 Accomplishments

- Presented six regular design seminars to approximately 750 professional design engineers covering the availability of new municipal waste water treatment technologies.
- Initiated ten seminars on infiltration control (runoff water entering treatment works causing overloads) in response to Section 201 (g) (3) of the Federal Water Pollution Control Act Amendments of 1972.
- Initiated a industrial seminar program and presented seven seminars to small industrial manufacturers covering new environmental pollution control technology.

- Distributed, upon request, 80,000 design manuals for use by municipal waste water design engineers.
- Prepared design manuals for pulp/paper and iron/steel industries.

1974 Objectives

- Present ten regular design seminars for municipal and industrial design engineers.
- Prepare design manuals on nitrogen control and the use of oxygen aeration for municipal waste water treatment plants.
- Prepare industrial design manuals on the power and textile industry including subject matter on air monitoring.

Program Management and Support

Research and Development
Program Management and Support

Purpose

This activity encompasses the overall management of and support for the Research and Development programs described in the foregoing sections.

	<u>1973</u>	<u>1974</u>	<u>Increase or Decrease</u>
<u>Budget Authority</u>			
Program Management.....	\$6,023,600	\$5,916,900	-\$106,700
Program Support.....	8,200,000	11,526,000	+3,325,900
Grant and Contract Review Committees.....	2,500,000	...	-2,500,000
Total.....	16,723,700	17,442,900	+719,200
<u>End-of-Year Employment</u>			
Program Management.....	263	263	...
Program Support.....	...	...	....
Grant and Contract Review Committees.....	...	...	...
Total.....	263	263	...
<u>Man-Years, Total</u>	255	255	...

Summary of Increases and Decreases

	<u>1973</u>	<u>1974</u>	<u>Change</u>
<u>Program Management</u>	<u>\$6,023,600</u>	<u>\$5,916,900</u>	<u>-\$106,700</u>

A decrease in funding requirements made possible by a reduction in staff during 1973.

<u>Program Support</u>	<u>8,200,100</u>	<u>11,526,000</u>	<u>+3,325,900</u>
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To cover a prorated share of increased funding requirements for common support services--refer to the section on Agency and Regional Management for a description of these requirements.

<u>Grant and Contract Review Committees</u>	<u>2,500,000</u>	<u>...</u>	<u>-2,500,000</u>
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A reduction for this purpose is achieved due to the Agency requirement that such committees will be funded by the programs concerned.

Research and Development
Program Management and Support
Program Management

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Program management...	\$6,023,600	\$5,916,900	-\$106,700

This activity provides for the overall management of the Office of Research and Monitoring, including the four National Environmental Research Centers. It involves the development of program policies and strategies, the overall planning of research and development activities, the monitoring and review of program performance, and the direction of the program activities performed in headquarters and the National Environmental Research Centers. The activity also provides for a regional research representative and staff in each of the ten regional offices. To carry out these functions, this activity provides for the following staffing of managerial personnel:

	<u>1973</u>	<u>1974</u>
Office of Research and Monitoring.....	7	7
Office of Research.....	27	27
Office of Monitoring.....	31	31
Office of Program Operations.....	85	85
National Environmental Research Centers	71	71
Regional Research Representatives.....	42	42

Purpose of Decrease

The 1974 funding requirements of this activity will be less than those of 1973 because of a reduction in the staffing of the above offices during 1973 (these reductions are reflected in the above staffing figures for both 1973 and 1974). The increased salary costs of the 1973 pay raise are offset by the reduced funding requirements.

Research and Development

Program Management and Support
Program Support

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Program support.....	\$8,200,100	\$11,526,000	+\$3,325,900

This element constitutes the prorated share of EPA's total funding requirements for common support services. These funding requirements cover certain agencywide and regional lease, communication, and other common service costs which are managed through a single headquarters and ten regional accounts. These requirements are fully described in the section covering Agency and Regional Management. The prorated share charged under this element represents that portion required to support the programs funded and conducted under the Research and Development appropriation account.

Purpose of Increase

This increase, together with those under similar elements under the Abatement and Control and Enforcement appropriation accounts, are described under the section covering Agency and Regional Management.

Research and Development
Program Management and Support
Grant and Contract Review Committees

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Grant and contract review committees.....	\$2,500,000	...	-\$2,500,000

In 1973, the House Appropriations Committee earmarked, by appropriation language, \$2,500,000 for Research and Development specifically to fund advisory committees. The committee indicated the job of cleaning up the environment is so big and so important to the future of our country that it is absolutely essential that we utilize such resources as we can in a manner that will yield the greatest return. Therefore, they recommended that advisory committees be utilized to review the priority of the Agency and to advise the Administrator as to which contracts or grants will provide the greatest return to the Agency in relation to those priorities.

As a result of this action, an exhaustive review was conducted of the existing advisory committee structure, its possible use in complying with the requirements of the Appropriation Act, and the use of existing and new advisory committees in the Agency's complex grant and contract programs. The review was difficult in view of the stringent requirements of the Federal Advisory Committee Act of 1972, effective January 5, 1973; however, EPA now has various committees designated to fulfill these requirements.

Purpose of Decrease

The budget proposes the elimination of the specific earmarking of funds in the appropriation language for this purpose. However, EPA will still continue this committee review process in 1974 with funding to be accommodated by the programs concerned, since the review also indicated that the funds required were considerably less than that earmarked for 1973.

Abatement and Control

Abatement and Control

Purpose

Abatement and control activities include programs in air and water pollution control, water supply and radiation protection, solid and toxic waste management, pesticides control, and noise abatement.

Efforts entail developing environmental standards; monitoring and surveillance of pollution conditions; grant support for State and local pollution control planning; direct Federal pollution control planning; grant support for State, regional, and local pollution control programs; technical assistance to pollution control agencies and organizations; assistance to Federal agencies in complying with environmental standards and insuring that their activities have minimum environmental impact; and training to increase the supply of and improve the skills of pollution control personnel. Also included is the overall management and support of the abatement and control programs.

<u>Budget Authority</u>	<u>1972</u> ^{a/}	<u>1973</u>	<u>1974</u>
Air.....	\$75,127,900	\$80,807,400	\$79,734,700
Water Quality.....	59,140,500	120,490,800 ^{b/}	196,909,300 ^{b/}
Water Supply.....	1,716,900	2,014,500	2,052,100
Solid Wastes.....	9,547,200 [✓]	12,942,300	3,560,000
Pesticides.....	12,543,700	14,112,200	17,224,500
Radiation.....	4,406,200	4,848,100	4,650,700
Noise.....	965,800	2,083,100	3,487,500
Program Management and Support.....	26,009,800	24,736,200	31,481,600
Total.....	189,458,000	262,034,600	339,100,400 [†]

<u>Manpower Resources</u>	<u>1973</u>	<u>1974</u>
End-of-Year Employment.....	3,454	3,605
Man-Years.....	3,347	3,442

a/ Provided for comparative purposes and represents resources approved under the appropriation "Operations, Research, and Facilities" for activities now carried under this appropriation.

b/ Includes contract authority for Areawide Waste Treatment Management Grants of \$50 million in 1973 and \$96 million in 1974. None of the 1973 authority and \$21 million of the 1974 authority is expected to be used in 1974 and liquidated in future years.

Air

Abatement and Control

Air

Purpose

The air abatement and control program encompasses those activities carried out by EPA to implement the Clean Air Act, as amended, with the exception of activities related directly to research and development and enforcement, which are covered under separate appropriations. The abatement and control activities include: development, establishment, and implementation of ambient air quality standards, stationary source standards, and mobile source standards. Because the primary responsibility for the control of pollution at its source lies with the States and communities, most of EPA's abatement and control efforts are oriented toward support of State and local efforts. The bulk of the resources under this program are in the form of grants to State and local air pollution control agencies; EPA activities in monitoring and surveillance are in direct support of the State and local programs; EPA provides technical assistance to the State and local agencies in development and operation of their programs; and EPA provides or supports training to improve the skills of State and local air pollution control personnel as well as to increase the availability of air pollution control manpower. Also, under this program, EPA assists other Federal agencies to bring their facilities into conformance with prevailing air pollution standards and helps ensure that the programs, projects, and other activities of Federal agencies produce a minimum air pollution impact.

	<u>1973</u>	<u>1974</u>	<u>Increase or Decrease</u>
<u>Budget Authority</u>			
Mobile Sources.....	\$9,325,200	\$9,807,500	+\$482,300
Stationary Source Standards and Guidelines.....	6,246,000	6,280,100	+34,100
Ambient Trend Monitoring...	952,300	976,700	+24,400
Technical Assistance.....	10,925,400	9,052,400	-1,873,000
Academic Training Grants...	2,556,900	2,100,000	-456,900
Control Agency Support.....	50,801,600	51,518,000	+716,400
Total.....	80,807,400	79,734,700	-1,072,700
<u>End-of-Year Employment</u>			
Mobile Sources.....	160	160	...
Stationary Source Standards and Guidelines.....	125	120	-5
Ambient Trend Monitoring...	43	43	...
Technical Assistance.....	369	310	-59
Academic Training Grants...	...	...	...
Control Agency Support.....	5	...	-5
Total.....	702	633	-69
<u>Man-Years, Total</u>	680	614	-66

Summary of Increases and Decreases

	<u>1973</u>	<u>1974</u>	<u>Change</u>
<u>Mobile Sources</u>	<u>\$9,325,200</u>	<u>\$9,807,500</u>	<u>+\$482,300</u>

Standards, guidelines, and regulations.....	3,172,000	3,239,400	+67,400
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To provide for the increased salary costs of the 1973 pay raise.

Monitoring and surveillance...	6,153,200	6,568,100	+414,900
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To support the intensified vehicle certification program initiated in 1973 and to provide for the increased salary costs of the 1973 pay raise.

<u>Stationary Source Standards and Guidelines</u>	<u>6,246,000</u>	<u>6,280,100</u>	<u>+34,100</u>
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To provide for the increased salary costs of the 1973 pay raise.

<u>Ambient Trend Monitoring</u>	<u>952,300</u>	<u>976,700</u>	<u>+24,400</u>
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To provide for the increased salary costs of the 1973 pay raise.

<u>Technical Assistance</u>	<u>10,925,400</u>	<u>9,052,400</u>	<u>-1,873,000</u>
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Technical information and assistance.....	8,102,100	6,284,800	-1,817,300
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To cover the comparative transfer of 59 positions to the Enforcement appropriation account for enforcement of State implementation plans, new source performance standards and hazardous air pollutant emission standards.

Federal activities.....	719,400	742,800	+23,400
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To provide for the increased salary costs of the 1973 pay raise.

Manpower training and planning	2,103,900	2,024,800	-79,100
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A reduction in 1974 funding requirements which offsets the increased salary costs of the 1973 pay raise and provides the decrease indicated.

<u>Academic Training Grants</u>	<u>2,556,900</u>	<u>2,100,000</u>	<u>-456,900</u>
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The decrease in 1974 reflects EPA's intention to shift from a traineeship program to a scholarship program at the bachelor/masters level.

	<u>1973</u>	<u>1974</u>	<u>Change</u>
<u>Control Agency Support</u>	50,801,600	51,518,000	+716,400

To increase grant assistance to State and local agencies to aid them in executing and enforcing State implementation plans.

Abatement and Control

Air Mobile Sources

Justification

The mobile sources program includes the development of motor vehicle, aircraft, and fuel standards and regulations; the certification of new vehicles for conformity with applicable motor vehicle emission standards; the testing of vehicles for confirmation of emissions data submitted by manufacturers; and the testing of in-use vehicles to determine emissions performance.

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Standards, guidelines, and regulations..	\$3,172,000	\$3,239,400	+\$67,400

This activity includes the development of emission standards for mobile sources; the assessment of the need for changes in the standards or the need to extend coverage to sources not currently controlled; and the development of procedures used to set and assure compliance with the emission standards. The light duty emission standards assessment has been the most important activity. The stringent emission standards required by the Clean Air Act for 1975 (for hydrocarbons and carbon monoxide) and 1976 (nitrogen oxides) model year light duty vehicles has resulted in a need for continuous assessment of the technology available to meet such standards. Manufacturers are authorized to apply for suspension of the emission standards' applicability for one year if certain strict conditions are met. The EPA Administrator, before granting the suspension, must find that: (1) the suspension is essential to the public interest or health and welfare; (2) all good faith efforts have been made to meet the standards; (3) the manufacturer has established that effective control techniques are not available; and (4) other evidence available corroborates the manufacturer's contention. Manufacturers submitted applications for suspension of the 1975 standards in early 1972; their requests were denied. The courts have ordered the Administrator to review his action and new hearings are required.

Standards development effort is also devoted toward the control of emissions from other sources including heavy duty vehicles and aircraft. Revised heavy duty vehicle standards were set in 1973. Aircraft emission standards covering exhaust emissions from new and in-use aircraft gas turbine engines, new aircraft piston engines, and new and in-use gas turbine aircraft have been proposed. In addition, assessments are being

made to determine the need for controlling other mobile sources such as motorcycles, recreational vehicles, and medium duty vehicles.

Purpose of Increase

To provide for the increased salary costs of the 1973 pay raise.

Significant 1973 Accomplishments

- Conducted suspension hearings and determined the need for granting extensions of light duty motor vehicle standards applicable to 1975 and 1976 model-year vehicles.
- Promulgated revised heavy duty vehicle emission standards.
- Promulgated light duty Diesel engine emission standards.
- Promulgated aircraft emission standards.

1974 Objectives

- Continue the assessment of the technological feasibility of meeting the 1975 and 1976 light duty vehicle emission standards.
- Promulgate emission standards for medium duty vehicles.
- Reassess technical aspects of the aircraft standards to be promulgated during 1973.

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Monitoring and surveillance.....	6,153,200	6,568,100	+414,900

This program includes the certification of prototype light duty vehicles and heavy duty engines for conformity with applicable motor vehicle emission standards, the testing of selected vehicles and engines for confirmation of the emissions data submitted by manufacturers, and the testing of in-use motor vehicles to establish their emissions performance. The certification program is presently the single most important aspect of the overall program for assuring that new motor vehicles are manufactured with the capability to meet emission standards. The need to place increased emphasis on this program was demonstrated in 1972 when the Ford Motor Company violated some of the conditions governing the testing of prototypes, jeopardizing its ability to receive certification in time to market its 1973 model vehicles. This incident led to the intensification of EPA's efforts in checking on the procedures followed by manufacturers in testing their vehicles and in accumulating mileage on their prototypes. The intensified certification effort includes visits

to manufacturers' facilities to determine the existence of potential or actual problem areas. The resolution of problems prior to testing will significantly improve the chances of avoiding problems in future certification activities. Testing in-use vehicles is done to evaluate their contribution to air pollution and to provide an information base from which to determine whether manufacturers should be required to recall classes of vehicles found to have defective emission control devices.

Purpose of Increase

To support the intensified vehicle certification program initiated in 1973 and to provide for the increased salary costs of the 1973 pay raise.

Significant 1973 Accomplishments

- Contributed information leading to the recall of 2,290 vehicles found to be in violation of certification conditions.
- Completed certification of 1974 model-year light duty vehicles and heavy duty engines for conformity with emissions standards.

1974 Objectives

- Complete certification of 1975 model-year light duty vehicles and heavy duty engines.
- Carry out an intensified certification program.

Abatement and Control

Air Stationary Source Standards and Guidelines

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Stationary source standards and guidelines.....	\$6,246,000	\$6,280,100	+\$34,100

This program includes the setting of New Source Performance Standards (NSPS), National Emission Standards for Hazardous Air Pollutant Sources (NESHAPS), and National Ambient Air Quality Standards (NAAQS) making changes or additions in these standards; assessing the need to control any substance found to be an air pollutant; and carrying out supportive studies and the promulgation of ancillary regulations. NAAQS for the most significant pollutants currently identified (sulfur dioxide, particulates, nitrogen dioxide, carbon monoxide, and photochemical oxidants and hydrocarbons) have been set. NESHAPS are in process for the most significant sources of mercury, asbestos, and beryllium; it is expected that these standards will be promulgated before the end of FY 1973. The control of NAAQS is in process through the State Implementation Plans (SIPs). The bulk of the work on NAAQS is (and will be in the future) SIP preparation, with modifications of the standards leading to changes in SIPs. The NSPS are the basic tool for controlling pollutant emissions from new stationary sources.

NSPS are based on emission levels achievable by the best adequately demonstrated system of emission reduction. The application of this type of controls by new or modified sources will result in substantial improvements in emission reductions and in nationwide protection against undue deterioration of air quality. NSPS will avoid by requiring all new sources to meet the same emission limitations, the proliferation of highly polluting sources that may be built away from current priority air quality control regions in attempts to evade State regulations prepared for the control of sources in the high pollution areas. An additional benefit to be derived from NSPS is the incentive provided to industry for the development of improved technology to more effectively meet the standards. The potential sources to be covered by NSPS number more than a hundred. NSPS have been set for large power plants, municipal incinerators, portland cement plants, nitric acid plants, and sulfuric acid plants. Emissions' limitations have been set for new or modified plants in these categories for particulates, sulfur dioxide, nitrogen oxides, and sulfuric and nitric acid mists. Additional groups of sources will be covered in the future. Under consideration are

asphalt concrete plants; petroleum refineries; storage vessels for petroleum liquids; secondary lead smelters; brass and bronze ingot production plants; iron and steel mills; sewage treatment plants; primary copper, zinc, and lead smelters; and a host of other industries. In the case of pollutants for which no criteria has been published (and no NAAQS are applicable), the Clean Air Act provides for the preparation by States of plans for the control of existing sources to which a NSPS would be applicable if they were new. The applicability of NSPS to new sources and modifications for NAAQS pollutants and to all sources for other pollutants makes these standards a powerful tool for reducing pollutant emissions. As such, they constitute the main effort carried out under this activity.

Supportive studies are carried out to determine the economic impact of emission standards, the sources of pollutants in specific industries, and the need to control these industries. Assessments of the need to control additional pollutants are also made, based on information made available by health or welfare effects research work.

Purpose of Increase

To provide for the increased salary costs of the 1973 pay raise.

Significant 1973 Accomplishments

- Revised the secondary sulfur dioxide National Ambient Air Quality Standards.
- Promulgated National Emission Standards for Hazardous Air Pollutant Sources for significant sources of asbestos, mercury, and beryllium.
- Promulgated New Source Performance Standards for asphalt concrete plants, petroleum refineries, storage vessels for petroleum liquids, secondary lead smelters, brass and bronze ingot production plants, iron and steel mills (in part), and sewage treatment plants.

1974 Objectives

- Promulgate New Source Performance Standards for Kraft pulp mills, aluminum reduction, coal cleaning plants, ferroalloy plants, gas turbines, iron and steel mills (in part), and phosphate fertilizer plants.

Abatement and Control
Air
Ambient Trend Monitoring

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Ambient trend monitoring...	\$952,300	\$976,700	+\$24,400

The ambient air monitoring program is carried out by EPA's National Aerometric Surveillance Network. This network supplements State and local air quality monitoring systems. The program includes the collection, storage, processing, and analysis of national air quality data for the purpose of establishing trends and evaluating State and local monitoring efforts. The Federal network consists of some 250 stations which provide quality control audit to approximately 2,000 State and local stations which operate under approved State implementation plans. States submit their air quality data to EPA through the quarterly reports set up under State implementation plans. EPA processes and summarizes these data to provide an assessment of progress toward achieving ambient air quality standards.

Purpose of Increase

To meet the increased salary costs of the 1973 pay raise.

Significant 1973 Accomplishments

- Provided information on ambient air concentrations of sulfur dioxide, nitrogen dioxide, and total suspended particulates.
- Summarized and published air quality data collected in 1969, 1970, and 1971.

1974 Objectives

- Provide information on ambient air concentration of sulfur dioxide, nitrogen dioxide, and total suspended particulates.
- Summarize air quality data submitted by States to assess progress toward achieving air quality standards.

Abatement and Control

Air Technical Assistance

Justification

This program includes the provision of technical information and assistance to State and local agencies; the review, approval or promulgation of State implementation plans; the review of environmental impact statements; the surveillance of other Federal agencies activities to assure compliance with standards; and the conducting of manpower training and planning programs.

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Technical information and assistance.....	\$8,102,100	\$6,284,800	-\$1,817,300

This program includes the review, approval, and preparation of State implementation plans, the provision of assistance to States and local agencies in the technical aspects of air pollution control, the assessment of the effectiveness of control strategies, the preparation of technical guidance materials for air pollution control agency use, the maintenance and updating of the national emissions data bank, the monitoring of emergency air pollution episodes, and the review, indexing, abstracting, retrieval, and distribution of air pollution control literature.

EPA is responsible for the review, approval, and promulgation (where State plans are found inadequate) of State implementation plans. State plans for achieving compliance with primary National Ambient Air Quality Standards have been in effect since early 1973 for all jurisdictions. In addition, plans for achieving compliance with secondary standards are in effect for 37 jurisdictions. Plans for achieving secondary standards for sulfur dioxide and particulate matter in the remaining 18 jurisdictions will be submitted in early 1974 for review and approval. The prospective change in the sulfur dioxide standard may alter this schedule, extending the date for the submission of plans for achieving the sulfur dioxide secondary standard to the latter part of 1974. Significant effort will also be devoted to the review and approval of transportation control plans in 1973 and 1974. Revisions of currently approved plans are expected to be numerous due to (1) changing environmental conditions, (2) better understanding of specific States' air pollution problems, (3) potential changes in national ambient air quality standards, and (4) recent and prospective court decisions placing an

additional burden on States for revising and resubmitting their plans to EPA.

Assistance to State and local agencies complements the financial assistance (described under Air Control Agency Support) given to these agencies. The close relationship maintained by EPA personnel with State and local air pollution control personnel facilitates the application of the best techniques and procedures at all levels of government, leading to improvements in air pollution control. EPA personnel assess the needs of specific control agencies and provide advice on how to improve operations. Advice is supplemented by the publication of manuals on subjects such as air quality monitoring, laboratory services, permit processing, and enforcement actions. The abstracts of the literature on air pollution are made available to control agencies as well as other parties interested in air pollution control. Atmospheric conditions that may lead to exceptional buildups of pollutant concentrations are monitored and where these conditions indicate that an emergency episode is likely to occur, action is taken under the provisions of the Clean Air Act. Such actions are taken by EPA only after a State has failed to act.

The maintenance of a data bank with information on nationwide pollutant emissions allows estimates to be made of the national air pollution status and the assessment of the effectiveness of air pollution control measures, such as emission standards and implementation plans. The emissions data, when coupled with other information on items such as air quality, meteorologic factors, topography, and projected growth, allow prediction of the impact that specific control strategies will have on air quality.

Purpose of Decrease

To cover the comparative transfer of 59 positions to the Enforcement appropriation account for enforcement of State implementation plans, new source performance standards, and hazardous air pollutant emission standards. This transfer is made possible by the decrease in peak activities related to the preparation of State implementation plans.

Significant 1973 Accomplishments

- Completed review and approval or promulgation of implementation plans for achieving primary air quality standards for all States and for achieving secondary standards for 37 jurisdictions.
- Provided assistance to remaining 18 states in preparing plans for achieving secondary standards for sulfur dioxide and total suspended particulates.
- Initiated review of transportation control plans received from States.

1974 Objectives

- Complete review and approval or promulgate transportation control plans for all States that require them.
- Review and approve or promulgate State implementation plans for achieving secondary air quality standards for the remaining 18 jurisdictions not currently approved or promulgated.
- Review and revise, where appropriate, State implementation plans in accordance with the Supreme Court decision on non-degradation,

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Federal activities.....	\$719,400	\$742,800	+\$23,400

The purpose of this program is to ensure that other Federal agencies' activities produce a minimum air pollution effect and do not violate prevailing standards. Executive Order 11507 requires that all installations owned or leased by the Federal Government comply with established Federal, State, and local air and water pollution control standards. In addition, Executive Order 11514 requires the Federal agencies to prepare environmental impact statements on proposed actions. These statements are submitted to EPA for review and comment.

In furtherance of these requirements, EPA develops and issues guidelines and procedures relating to the control of air pollution from Federal facilities; provides consultation and technical assistance to Federal agencies in development and implementation of their air pollution control plans and programs; compiles, stores, and processes data on the air pollutant emissions of Federal installations; reviews agencies' environmental impact statements to determine the impact of proposed Federal projects or federally funded or licensed actions on the air environment; and provides assistance to the agencies in improving the environmental protection measures associated with such actions.

Purpose of Increase

To provide for the increased salary costs of the 1973 pay raise.

Significant 1973 Accomplishments

- Provided technical advice and assistance to Federal agencies on a variety of problems relating to the prevention, control, and abatement of air pollution from Federal facilities.

- Reviewed approximately 1,600 environmental impact statements and provided comments to the Federal agencies.
- Maintenance of air emission data on approximately 3,000 Federal facilities located in the first 34 designated air quality control regions.
- Reviewed and evaluated fiscal plans from seven Federal agencies, involving 230 air pollution abatement projects.

1974 Objectives

- Continue to provide technical advice and assistance to Federal agencies.
- Develop and issue appropriate program guidelines and procedures.
- Review and comment on about 1,600 new environmental impact statements and emphasize follow-up on implementation of projects covered by previously reviewed statements.
- Monitor Federal facilities' compliance with applicable air quality standards and implementation schedules.
- Update and expand data on air emissions and pollution controls at Federal facilities.
- Review and evaluate Federal agencies' plans for installing air pollution control measures.

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Manpower training and planning.....	\$2,103,900	\$2,024,800	-\$79,100

The objective of the manpower training and planning program is to help meet manpower needs of State and local programs. The program includes the development and delivery of short courses for improving the skills of air pollution control personnel at the entry and advanced levels and the assessment of national training needs in air pollution control. The program is oriented toward personnel employed by State and local agencies.

Purpose of Decrease

A reduction in 1974 funding requirements which offsets the increased salary costs of the 1973 pay raise and provides the decrease indicated.

Significant 1973 Accomplishments

- Provided training for approximately 3,100 personnel.

1974 Objectives

- Provide training for approximately 3,100 personnel.

Abatement and Control
Air
Academic Training Grants

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Academic training grants...	\$2,556,900	\$2,100,000	-\$456,900

To help meet national needs for professional air pollution control manpower, EPA awards grants to universities and individuals to support both undergraduate and graduate air pollution control training. The gap between supply and demand for air pollution control specialists at the State and local level has closed considerably over the past two to three years. Increased concern for the environment among students has raised enrollments in air pollution control courses and related degrees. Universities have responded to these demands through increased course offerings. The concern in academic manpower training has shifted from stimulating interest in air pollution to attracting superior students into the field. Commencing with the 1973-74 academic year, EPA support for academic training will shift from a traineeship program to a scholarship program at the bachelor/masters level. Fellowships which are aimed at employees of State and local agencies will continue.

Purpose of Decrease

The decrease in 1974 reflects EPA's intention to shift from a traineeship program to a scholarship program at the bachelor/masters level.

Significant 1973 Accomplishments

- Awarded 70 fellowships at the graduate level for the training of State and local control agency personnel.
- Provided support to 250 students pursuing air pollution-related courses of study at both the graduate and undergraduate levels.

Abatement and Control
Air
Control Agency Support

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Control agency support.....	\$50,801,600	\$51,518,000	+\$716,400

As authorized under the Clean Air Act, assistance is provided to State and local agencies through control agency grants, assignment of personnel to State agencies, special contract support, and demonstration grants. The primary purpose of these support activities is to assist State and local agencies in developing and implementing plans to achieve and sustain ambient air quality standards. Grant funds provide for conducting control programs in their entirety and include monitoring, enforcement, administration, laboratory services, and other activities. To bolster State capability, EPA personnel are assigned to State and local agencies for two-year term appointments. Based upon this support, implementation plans developed by the 55 jurisdictions covered by the Clean Air Act are already approvable in whole or in part.

For cases in which States require special assistance for the performance of specialized tasks, such as the development of emission inventories and transportation control plans, the services of EPA contractors are available. EPA enters into contracts with a series of firms for services to be provided upon call. This arrangement greatly speeds up the availability of contractors' services to States and permits States to comply with the short deadlines imposed by the Clean Air Act and various court orders that impose requirements on the States.

Purpose of Increase

To increase grant assistance to State and local agencies to aid them in executing and enforcing State implementation plans.

Significant 1973 Accomplishments

- Assigned 250 State assignees to State and local control agencies.
- Awarded approximately 230 grants to control agencies.
- Provided contractor assistance to 45 States and District of Columbia.

1974 Objectives

- Continue the assignment of 250 State assignees to State and local control agencies.
- Award approximately 230 grants to control agencies.
- Provide contractor assistance to 45 States and the District of Columbia.

Water Quality

SECTION TAB

Abatement and Control

Water Quality

Purpose

The water abatement and control program encompasses those activities carried out by EPA to implement the Federal Water Pollution Control Act Amendments of 1972, with the exception of activities related directly to research and development and enforcement, which are covered under separate appropriations. The major elements of the program include:

- the assessment of areas in which water pollution is most serious.
- the development of plans for all navigable water under section 303(e) to provide the basis for establishment of effluent limitations and schedules of compliance for municipal, agricultural, and industrial dischargers.
- the development of guidelines for the issuance of discharger permits specifying effluent limitations to municipalities and industries.
- the approval of Federal grants for the construction of municipal sewage treatment works to enable them to achieve required effluent levels.
- the establishment of effluent guidelines representing best practicable and best available technology for various industries.
- the study of the nature and extent of nonpoint sources of pollution.

Because the primary responsibility for the control of pollution lies with the States, most of EPA's abatement and control efforts are oriented toward support of State and local efforts. States are responsible for detailed planning, monitoring, and enforcement efforts, as well as establishing the priorities for the commitment of Federal funds for the construction of sewage treatment plants. In addition to their mandated roles, States are being encouraged to undertake the issuance of industrial and municipal permits. A substantial portion of the resources included in this program are in the form of grants to State and interstate water pollution control agencies; EPA activities in monitoring and surveillance are in direct support of the State and local programs, EPA provides technical assistance to the State and local agencies in development and operation of their programs; and EPA provides or supports training to improve the skills of State and local water pollution control personnel as well as to increase the availability of water pollution control manpower. Also under this program, EPA assists other Federal agencies to

bring their facilities into conformance with prevailing pollution standards and helps ensure that the programs, projects, and other activities of Federal agencies produce a minimum water pollution impact.

	<u>1973</u>	<u>1974</u>	<u>Increase or Decrease</u>
Budget Authority			
Ambient Trend Monitoring.	\$5,479,600	\$5,264,400	-\$215,200
Technical Assistance and Planning.....	21,412,400	19,575,400	-1,837,000
Academic Training.....	5,826,800	3,340,600	-2,486,200
Areawide Waste Treatment Management Grants			
Section 208.....	...	4,000,000 ^{a/}	+4,000,000
Control Agency Support...	20,587,800	40,000,000	+19,412,200
Municipal Source Control.	11,343,300	14,771,400	+3,428,100
Industrial Source Control	3,200,400	7,359,500	+4,159,100
Nonpoint Source Control..	729,000	1,636,400	+907,400
Ocean Disposal and Spill Prevention.....	1,911,500	4,961,600	+3,050,100
Subtotal.....	70,490,800	100,909,300	+30,418,500
Contract Authority			
Areawide Waste Treatment Management Grants (Section 208).....	50,000,000 ^{b/}	96,000,000 ^{b/}	+46,000,000
Total.....	120,490,800	196,909,300	+76,418,500
End-of-Year Employment			
Ambient Trend Monitoring.	232	232	...
Technical Assistance and Planning.....	570	595	+25
Academic Training.....	5	...	-5
Areawide Waste Treatment Management Grants (Section 208).....	...	...	...
Control Agency Support...	25	...	-25
Municipal Source Control.	521	655	+134
Industrial Source Control	44	55	+11
Nonpoint Source Control..	17	26	+9
Ocean Disposal and Spill Prevention.....	101	151	+50
Total.....	1,515	1,714	+199

	<u>1973</u>	<u>1974</u>	<u>Increase or Decrease</u>
<u>Man-Years, Total</u>	1,469	1,663	+194

a/ To liquidate contract authority.

b/ None of the 1973 authority is expected to be used. \$21 million of the 1974 authority is expected to be used in 1974 and liquidated in future years.

Summary of Increases and Decreases

	<u>1973</u>	<u>1974</u>	<u>Change</u>
<u>Ambient Trend Monitoring</u>	<u>\$5,479,600</u>	<u>\$5,264,400</u>	<u>-\$215,200</u>
A decrease in 1974 funding requirements because of nonrecurring costs for maintaining EPA's water quality monitoring system.			
<u>Technical Assistance and Planning</u>	<u>21,412,400</u>	<u>19,575,400</u>	<u>-1,837,000</u>
Water quality planning.....	12,725,500	10,555,300	-2,170,200
A decrease reflecting the termination of the Section 102(c) water quality planning grants program.			
Technical information and assistance.....	5,586,000	5,845,600	+259,600
To provide for the increased salary costs of the 1973 pay raise.			
Federal activities.....	2,163,100	2,217,100	+54,000
To provide for the increased salary cost of the 1973 pay raise.			
Standards, guidelines and regulations.....	937,800	957,400	+19,600
To provide for the increased salary costs of the 1973 pay raise.			
<u>Academic Training</u>	<u>5,826,800</u>	<u>3,340,600</u>	<u>-2,486,200</u>
A decrease in 1974 funding requirements which will result from shifting from the support of traineeships/fellowships to the support of scholarships.			
 <u>Areawide Waste Treatment Management Grants (Section 208)</u>			
Budget authority.....	...	4,000,000	+4,000,000
Contract authority.....	50,000,000	96,000,000	+46,000,000
<u>Total</u>	<u>50,000,000</u>	<u>100,000,000</u>	<u>+50,000,000</u>

None of the 1973 authority is expected to be used. In 1974, \$25 million in grants is expected to be awarded to waste treatment management agencies in major metropolitan areas. However only \$4 million is expected to be needed in appropriations to make payment against these awards. Payments against the remaining \$21 million will be made in future years.

	<u>1973</u>	<u>1974</u>	<u>Change</u>
<u>Control Agency Support</u>	<u>\$20,587,800</u>	<u>\$40,000,000</u>	<u>+\$19,412,200</u>

To assist State and interstate water pollution control agencies in carrying out the increased responsibilities prescribed by the Federal Water Pollution Control Act Amendments of 1972. These increased responsibilities include the development of Section 303(e) water quality management plans, review and processing of great numbers of construction grant applications, and the issuance of municipal and industrial permits.

<u>Municipal Source Control</u>	<u>11,343,300</u>	<u>14,771,400</u>	<u>+3,428,100</u>
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To establish and staff a municipal waste permit program pursuant to requirements of the Federal Water Pollution Control Act Amendments of 1972; to augment the staffing of the construction grants program to handle the increased volume of work that will derive from the increase in construction grants funding; and to provide for the increased salary costs of the 1973 pay raise.

<u>Industrial Source Control</u>	<u>3,200,400</u>	<u>7,359,500</u>	<u>+4,159,100</u>
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A comparative transfer of funds from Research and Development (Water) to complete the development of effluent guidelines for approximately 36 major industries.

<u>Nonpoint Source Control</u>	<u>729,000</u>	<u>1,636,400</u>	<u>+907,400</u>
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To initiate and develop nonpoint source pollution control programs which will assess the nature and extent of nonpoint source pollution problems and will develop control measures for regulating and abating nonpoint sources of pollution.

<u>Ocean Disposal and Spill Prevention</u>	<u>1,911,500</u>	<u>4,961,600</u>	<u>+3,050,100</u>
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To provide for the development of criteria and for the scientific and technical review of ocean disposal permit applications; to expand the oil and hazardous material spill response and prevention program; and to provide for the increased cost of the 1973 pay raise.

Abatement and Control
Water Quality
Ambient Trend Monitoring

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Ambient trend monitoring..	\$5,479,600	\$5,264,400	-\$215,200

The ambient trend monitoring program provides essential data on the Nation's water quality. Complemented by State and local networks, the Federal Water Quality Surveillance System, which is comprised of 875 monitoring stations, gathers data on water quality levels and provides data on specific point source dischargers. The system is supported by laboratory units which perform water sample analyses and by a computerized Federal data system which provides for assemblage and acquisition of both Federal and State water quality data. Data are made available to EPA programs for the development of standards, for the identification of abatement actions for planning and other related purposes as well as to other Federal agencies, and State and local pollution control agencies.

Purpose of Decrease

A minor decrease in 1974 funding requirements resulting from nonrecurring costs for maintenance of the Federal monitoring system.

Significant 1973 Accomplishments

- Evaluated the data base for all existing monitoring stations and identified those stations which will provide the trend monitoring data for the National Water Quality Inventory which is required under Section 305(a) and due to the Congress on January 1, 1974.

1974 Objectives

- To generate water quality data in hydrologically discrete water basin segments for which levels of effluent reductions, based on the application of best practicable technology for industry and secondary treatment for municipal plants, will not provide for meeting 1977 and 1983 water quality goals.
- To develop plans for future expansions or modifications of both Federal and State monitoring networks.

Abatement and Control
Water Quality
Technical Assistance and Planning

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Water quality planning..	\$12,725,500	\$10,555,300	-\$2,170,200

The principal elements of this activity are assisting the States in preparing Section 303(e) river basin water quality management plans and reviewing Section 201 waste treatment facility development plans prepared by local agencies. Under Section 303(e) of the Federal Water Pollution Control Act Amendments of 1972, the States are required to maintain a continuing planning process for the development and updating of water quality management plans for all navigable water river basins. This will involve collecting water quality and waste discharge data, determining permissible discharges of pollutants which will comply with water quality standards and, in certain basins, establishing waste discharge targets for all major sources within the basin. The States will be responsible for preparing these plans; EPA will provide assistance including support required in using mathematical models in the development of plans. The 1972 Amendments also call for local agencies to prepare and submit waste treatment facility development plans which incorporate cost-effectiveness data and other information which enable EPA to evaluate applications received for construction grants within the local area.

This activity also includes the funding of Great Lakes demonstration projects under Section 108 of the 1972 Amendments. Projects funded under this section provide for the demonstration of management techniques for controlling and abating pollution of the Great Lakes.

Finally, this activity provides for the appropriation of funds to be transferred to the Departments of Housing and Urban Development, Commerce, and Transportation and the Atomic Energy and Federal Power Commissions to enable them to participate in Water Resources Council planning studies.

Purpose of Decrease

A decrease reflecting the termination of grant awards for water quality planning projects under Section 102(c) of the 1972 Amendments. The increase in financial assistance to State and interstate water pollution control agencies and their use of part of this increase to undertake Section 303(e) planning supplants the need for Section 102 (c) grants.

Significant 1973 Accomplishments

- Completed 75 Section 303(e) river basin plans where existing data was sufficient.
- Reviewed Section 201 facility management plans required for all construction grants.

1974 Objectives

- To assist in preparation of 133 additional Section 303(e) river basin plans.
- To review Section 201 facility management plans as required for the awarding of construction grants.

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Technical information and assistance.....	\$5,586,000	\$5,845,600	+\$259,600

EPA provides technical guidance, assistance, and information to States, other Federal agencies, and local agencies to assist with the development of programs for control of water pollution. These activities consist of assisting States in the preparation of their annual plan for the prevention, reduction, and elimination of water pollution; providing guidance on the setting of standards and the development and maintenance of surveillance and monitoring systems; providing technical expertise; developing uniform laws; developing international agreements for control of border pollution; and disseminating technical information concerning scientific and engineering advances in the field of water pollution control.

Purpose of Increase

To provide for the increased salary costs of the 1973 pay raise.

Significant 1973 Accomplishments

- Assisted States in developing comprehensive State pollution control plans for control of pollution emanating from nonpoint sources.
- Assisted States in improving their monitoring and surveillance systems.

- Maintained a program of field investigations in the Great Lakes.
- Maintained data on water discharges from approximately 5,500 Federal facilities.
- Reviewed and evaluated fiscal plans from nine Federal agencies involving 419 water pollution abatement projects, and recommended budgetary priorities for each project.

1974 Objectives

- Provide consultation and technical assistance to Federal agencies.
- Develop and issue appropriate program guidelines and procedures.
- Issue water discharge permits for Federal facilities under the National Pollution Discharge Elimination System.
- Review and comment on about 1,600 new environmental impact statements and emphasize follow-up on implementation of projects covered by previously reviewed statements.
- Monitor Federal facilities' compliance with applicable water quality standards and implementation schedules.
- Review and evaluate Federal agencies' plans for installing water pollution control measures.

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Federal activities...	\$2,163,100	\$2,217,100	+\$54,000

EPA supports other Federal agencies in ensuring that their activities produce a minimum water pollution effect and do not violate applicable standards. Executive Order 11507 requires that all installations owned or leased by the Federal Government comply with established Federal, State, and local air and water pollution control standards. In addition, Executive Order 11514 required the Federal agencies to prepare environmental impact statements on proposed actions. The statements are submitted to EPA for review and comment.

The EPA program includes development of guidelines relating to the control of water pollution from Federal facilities; consultation and technical assistance to Federal agencies in development and implementation of their water pollution control programs; maintenance of an inventory of wastewater treatment and disposal systems at Federal facilities; review of agencies' draft and final environmental impact statements to determine the impact of proposed Federal projects or federally funded or licensed actions on the water environment; and assistance to the agencies in improving the environmental protection measures associated with such actions.

Purpose of Increase

To provide for the increased salary costs of the 1973 pay raise.

Significant 1973 Accomplishments

- Provided consultation and technical assistance to Federal agencies on a variety of water pollution control and abatement problems.
- Reviewed approximately 1,600 environmental impact statements and provided comments to the Federal agencies.

1974 Objectives

- Assist States in developing comprehensive State pollution control plans for control of pollution emanating from nonpoint sources.
- Assist States in improving their monitoring and surveillance systems.
- Maintain a program of field investigations in the Great Lakes.

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Standards, regulations and guidelines.....	\$937,800	\$957,400	+\$19,600

EPA is responsible for revisions to intrastate and interstate water quality standards. Standards establish the uses of water bodies, water quality criteria needed to protect these uses, and implementation plans detailing pollution control measures necessary to achieve these criteria. In 1974, EPA is authorized to promulgate water quality standards for any State whose standards were not approved in 1973 and to update all approved standards to include new information on toxic substances.

Purpose of Increase

To provide for the increased salary costs of the 1973 pay raise.

Significant 1973 Accomplishments

- Specified the changes in interstate and intrastate standards required to meet the Federal Water Pollution Control Act Amendments of 1972.

- Initiated revision of water quality standards for all States.

1974 Objectives

- Continue revision of interstate and intrastate water quality standards.

Abatement and Control

Water Quality Academic Training

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Academic training.....	\$5,826,800	\$3,340,600	-\$2,486,200

In order to help meet professional manpower needs in water pollution control, EPA awards grants to universities and individuals to support both undergraduate and graduate training in water pollution control. The gap between supply and demand for water pollution control environmentalists has closed considerably over the past few years. Increased concern for the environment among students has raised enrollments in water pollution control courses. In 1974, the EPA support for academic training will shift from a traineeships/fellowships program to a scholarship program at the bachelors/masters level.

Purpose of Decrease

A decrease in 1974 funding requirements which will result from the reorientation of the program. The shifting of training from traineeships and fellowships to scholarships will allow nearly the same number of students to receive Federal funds in 1974 as in 1973 at a much reduced total cost. Also, fellowships which were aimed at doctoral and post doctoral studies are no longer necessary to support the development of water pollution control courses and will be eliminated.

Significant 1973 Accomplishments

- Grant funds supported 970 traineeships (grants for masters degree work) and 42 fellowships (grants for doctoral and post doctoral studies).

Abatement and Control

Water Quality Areawide Waste Treatment Management Grants (Section 208)

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Budget authority.....	...	\$4,000,000	+\$4,000,000
Contract authority.....	\$50,000,000	96,000,000	+46,000,000
Total.....	50,000,000	100,000,000	+50,000,000

The Federal Water Pollution Control Act Amendments of 1972 authorizes State Governors to designate waste treatment management agencies for areas of severe urban-industrial water pollution. These agencies will develop comprehensive plans which assess all actions needed to meet water quality standards and effluent limitations. Priorities for construction of municipal treatment plants, industrial compliance with effluent guidelines, and control of nonpoint sources of pollution are to be addressed in these plans. Section 208 waste treatment management agencies will be responsible for all phases of plan implementation.

The 1972 Amendments authorize EPA to provide full funding of Section 208 waste management agencies. The Amendments authorize contract authority for this purpose.

Purpose of Increase

To cover estimated 1974 payments against contractual obligations to Section 208 waste treatment management agencies. Under the contract authority provision of Section 208 of the 1972 Amendments, EPA is authorized to incur contract obligations for grant assistance to waste treatment management agencies. EPA estimates the payments that will be made each year against these obligations and seeks appropriations to cover these payments. In 1973, EPA does not anticipate any grants. During 1974, EPA anticipates initiating waste treatment management grants to a limited number of agencies in major metropolitan areas. It is estimated that \$25 million in contracted obligations will be incurred under these grants and that payments totaling \$4 million will be required against these obligations. Accordingly, \$4 million in appropriated funds are requested for this activity.

1974 Objectives

- Initiate waste treatment management grants in a limited number of major metropolitan areas.

Abatement and Control

Water Quality Control Agency Support

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Control agency support...	\$20,587,800	\$40,000,000	+\$19,412,200

Control agency support funds provide Federal financial assistance to State and interstate water pollution control agencies. These grants are to assist these agencies in the operation of effective pollution control and enforcement programs for the prevention, reduction, and elimination of water pollution.

Purpose of Increase

To assist State and interstate agencies in carrying out increased responsibilities prescribed by the recently enacted water legislation. The Federal Water Pollution Control Act Amendments of 1972 require increased participation by State and interstate pollution control agencies in wastewater control. These agencies will have to expand their existing programs to administer a larger grants program for construction of sewage treatment plants and to carry out new responsibilities in meeting the goals of the Act. These goals require all point sources, including municipalities, to provide secondary treatment of their effluent or to achieve water quality standards, whichever is more stringent, by 1977/1978.

In the construction grants area, States will be asked to assume primary responsibility for the review of plans and specifications for treatment plants, showing evidence that cost effectiveness, infiltration inflow, and user charge criteria have been met. It is also expected that 20 to 30 States will assume full responsibility for issuing discharge permits to both municipal and industrial dischargers. States will also be expanding enforcement efforts against permit violators to ensure compliance with permit conditions.

In the planning area, States will have full responsibility for the development of Section 303(e) plans for 267 river basins in the country. Fifty-five of these are expected to involve detailed monitoring surveys to determine what levels of effluent control are needed to meet water quality standards. In ten river basins, nonpoint source pollution will be analyzed to determine its contribution to the total pollution problem.

In 1974, States are expected to contribute \$65 million to water pollution control efforts. This effort, combined with EPA's increased contribution to State and interstate water pollution control programs, represents an increase of some 35 percent over the 1973 level.

Significant 1973 Accomplishments

- Awarded grants to 55 State agencies and six interstate agencies to enable them to carry out effective water pollution control programs including:
 - the development of Section 201 facility management plans for construction grants;
 - the maintenance of monitoring stations; and
 - the operation and maintenance inspection of treatment plants.

1974 Objectives

- The 1974 objectives for State and interstate water pollution control agencies utilizing control agency support funds are as follows:
 - to process 2,500 project applications for construction grants.
 - to issue 23,000 municipal, 23,000 industrial, and 10,000 agricultural discharge permits by December 1974.
 - to develop Section 303(e) plans for all 267 river basins by December 1974.
 - to determine the contribution of nonpoint source pollution in 10 river basins.

Abatement and Control
Water Quality
Municipal Source Control

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Municipal source control.....	\$11,343,300	\$14,771,400	+\$3,428,100

The principal element of this activity is the administration of the construction grants program. This involves the review and processing of applications, the review of plans and specifications, the inspection of projects during and after construction, the conduct of inspections to assess the operation and maintenance of completed projects and the administration of EPA's regulations pertaining to construction grants. These activities are carried out jointly with the States.

Another element is the initiation and conduct of a municipal waste permit program pursuant to new provisions of the Federal Water Pollution Control Act Amendments of 1972. This involves the promulgations of regulations covering user charges, pretreatment requirements for industrial wastes discharged into municipal systems, and waste treatment requirements. It further involves the review of permit applications and the issuance of permits. This activity is also shared with the States.

Finally, this activity encompasses the training of waste treatment plant operators, technicians and managers, and the training of other State and local personnel engaged in water pollution control. Under this element, EPA administers several operator training programs funded by the Departments of Labor and Health, Education, and Welfare under the Manpower Development Training Act. EPA also funds some operator training activities including the support of an undergraduate training program.

Purpose of Increase

To establish and staff a municipal waste permit program pursuant to requirements of the 1972 Amendments, to augment the staffing of the construction grants program, to handle the increased volume of work that will derive from the significant increase in construction grants funding, and to provide for the increased salary costs of the 1973 pay raise.

Significant 1973 Accomplishments

- Developed and proposed regulations covering user charges, capital cost recovery, pretreatment of industrial waste, secondary treatment standards, and award procedures as required by the Federal Water Pollution Control Act Amendments of 1972.
- Completed the award of \$2 billion in construction grants from 1972 funds.

- Provided training for some 9,800 sewage treatment plant operators, managers, and technicians.
- Supported the training of 60 undergraduates for entry into waste treatment plant operation.
- Administered MDTA-funded programs for the training for an additional 5,500 waste treatment plant operators.

1974 Objectives

- Promulgate regulations for user charges, capital cost recovery, pretreatment of industrial wastes, and secondary treatment standards.
- Award grants for approximately 2,500 construction projects.
- Review and issue municipal waste permits for approximately 20 States which will not have been delegated State permit program responsibilities.
- Monitor the adequacy of State permit programs for the 20-30 States which accept the full permitting responsibilities.
- Provide training for some 9,800 sewage treatment facility operators, managers, and technicians.

Abatement and Control
Water Quality
Industrial Source Control

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Industrial source control..	\$3,200,400	\$7,359,500	+4,159,100

Under the Federal Water Pollution Control Act Amendments of 1972, permits issued by EPA under the National Pollution Discharge Elimination System (NPDES) will be based on industrial wastewater effluent limitation guidelines and standards which reflect the best practicable and best available control technology. EPA has categorized each industry in terms of raw material usage, product produced, manufacturing process employed, and other factors. Raw waste characteristics are identified for each industrial category. These characteristics are based upon waste and water material balance by source; flow and volume of water and wastewater used and produced; and the chemical, physical, and biological characteristics including toxic constituents, and other constituents causing taste, odor, and color effects. Control and treatment technologies are identified, documented, and verified within each industrial category. These cover in-plant control techniques; all existing and potential treatment and control technologies, including in-plant and end of process technologies; availability of recycling and recovery techniques, including elimination of discharge; limitations, reliability, and required implementation time of each treatment technology; effects of application of each treatment technology upon other pollution problems; resulting solid wastes and solid waste control technologies; and intake structure technology. Cost information for each treatment technology is identified. These include investment, annual (i.e. capital), depreciation, operating and maintenance costs, as well as energy and power costs. Data are evaluated to determine the best practicable and currently available control technology; the most economically feasible and available technology; and the best available demonstrated control technology. Once these have been determined, then the applicable effluent limitation guideline and/or standard is set for the industry.

Purpose of Increase

A comparative transfer from Research and Development, Water. During 1973 and prior years, the development of effluent guidelines was wholly or partially carried as a research and development activity. With the recent organizational assignment of this activity to the Office of Air and Water Programs, it is deemed appropriate to carry this as an Abatement and Control activity.

Significant 1973 Accomplishments

- Initiated industry studies for the development of effluent limitation guidelines and standards pursuant to requirements of the Federal Water Pollution Control Act Amendments of 1972.

1974 Objectives

- Complete 36 industry studies for the development of effluent limitation guidelines and standards.
- Promulgate guidelines and standards of 36 industrial categories.
- Undertake an additional 18 industrial studies.

Abatement and Control
Water Quality
Nonpoint Source Control

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Nonpoint source control....	\$729,000	\$1,636,400	+\$907,400

Under the Federal Water Pollution Control Act Amendments of 1972, EPA has the responsibility to develop information and guidelines for controlling pollution from nonpoint sources which include agriculture, silvaculture, mining, construction activities, wells and subsurface disposal, salt water intrusion, and changes in water movements caused by dredging and channeling.

Knowledge on the formation, extent, and effects of nonpoint source pollution is limited and must be developed. The pervasive dispersed nature of nonpoint source pollution does not lend itself to the conventional application of "hard" technology such as wastewater treatment plants. Therefore, the efforts directed at control of nonpoint source pollution will be through combinations of "hard" treatment, "soft" management techniques (i.e., contour farming, construction site terracing, abolition or strict control of clear-cutting in forest, etc.); and through legislative initiatives which promote proper land use.

Purpose of Increase

To initiate and develop a coordinated Federal/State program for controlling and abating nonpoint source water pollution. This will involve developing profiles of individual nonpoint source problems, enabling EPA to make its first assessment of the Nation's total nonpoint source problem. Where adequate information exists, States will begin to develop control strategies. EPA will coordinate and assist in this effort. This will be augmented by the establishment of State and local nonpoint source pollution control programs focused on the achievement of 1983 ambient goals prescribed in the 1972 Amendments.

Significant 1973 Accomplishments

- Prepared a report, from available data, on the nature and extent of nonpoint source pollution.

1974 Objectives

- Develop information including guidelines for identifying and evaluating nonpoint sources of pollution.

- Develop information on processes, procedures, and methods for controlling pollution resulting from nonpoint sources.
- Initiate four demonstration projects which will test the feasibility of utilizing existing Federal, State, and local laws to control nonpoint sources of pollution emanating from silvaculture, mining, agriculture, and subsurface injection of pollutants into groundwaters.

Abatement and Control

Water Quality Ocean Disposal and Spill Prevention

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Ocean disposal and spill prevention.....	\$1,911,500	\$4,961,600	+\$3,050,100

Under the Federal Water Pollution Control Act Amendments of 1972, EPA is responsible for establishing or revising regulations, standards, and guidelines for protection of the water environment. Among these are oil and hazardous material spill regulations, toxic standards, and ocean dumping regulations and criteria.

To provide efficient, coordinated, and effective actions that will minimize damage from oil and hazardous substances discharges and insure their containment, dispersal, and removal, a National Contingency Plan has been developed. This plan delineates the responsibilities of the various Federal, State, and local agencies, provides for equipment and supplies, and establishes the National Emergency Response Team which is trained, prepared, and available to provide the necessary services to carry out the plan.

Under the Federal Water Pollution Control Act Amendments of 1972, and the Marine Protection, Research, and Sanctuaries Act of 1972, EPA will promulgate regulations which prohibit and/or permit the disposal of materials into marine waters. There are some 1,000 potential major dumpers who will discharge 62 million tons per year of sewage sludge, dredge spoils, industrial waste, and other materials into 150 ocean dump sites along the Atlantic, Gulf and Pacific Coasts.

Purpose of Increase

To provide for the development of criteria and for the scientific and technical review of ocean disposal permit applications. The increase also provides for intensified efforts related to oil and hazardous material spill response and prevention and for the increased salary costs of the 1973 pay raise.

Significant 1973 Accomplishments

- Revised the existing National Contingency Plan for oil and hazardous substances to include requirements of the Federal Water Pollution Control Act Amendments of 1972.
- Developed and proposed regulations for ocean disposal permits.
- Developed and proposed oil spill and discharge prevention regulations.

1974 Objectives

- Promulgate a regulation which prescribes those quantities of any oil or hazardous substance which will be harmful to public health or welfare.
- Modify 10 Regional Contingency Plans to reflect the most recent revision of the National Contingency Plan, and develop subregional, State, or basin Contingency Plans.
- Designate ocean dumping sites and develop regulations governing permissible ocean dumping.
- Promulgate regulations designating hazardous substances which, when discharged in any quantity, presents an imminent and substantial danger to health and welfare; determine the removability of such substances; and establish a system of penalty fees.

Water Supply

Abatement and Control

Water Supply

Purpose

The purpose of the water supply program is to promote safe drinking water supply systems for the Nation. The program establishes drinking water standards and certifies water supply systems used by interstate carriers, pursuant to the Public Health Service Act and the Interstate Quarantine Regulations. It also aids, through technical assistance and training activities, the improvement of State and local water supply programs and water supply systems.

	<u>1973</u>	<u>1974</u>	<u>Increase or Decrease</u>
<u>Budget Authority</u>			
Technical Assistance....	\$2,014,500	\$2,052,100	+\$37,600
Total.....	2,014,500	2,052,100	+\$37,600
<u>End-of-Year Employment</u>			
Technical Assistance....	91	91	...
Total.....	91	91	...
<u>Man-Years, Total</u>	88	88	...

Summary of Increases and Decreases

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Technical Assistance	\$2,014,500	\$2,052,100	+\$37,600

To provide for the increased salary costs of the 1973 pay raise.

Abatement and Control

Water Supply Technical Assistance

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Technical assistance.....	\$2,014,500	\$2,052,100	+\$37,600

The water supply program involves four primary activities: (1) annual certification of all drinking water supply systems serving interstate carriers, such as airplanes, trains, buses, and vessels; (2) development and maintenance of a comprehensive inventory of public water supply systems; (3) technical assistance and training to improve water supply systems and programs, including special studies and comprehensive State program evaluations; and (4) development of drinking water standards and implementation of their use to assure the maximum feasible protection of the public health.

The development of drinking water standards and the certification of interstate carrier water supply systems are legislatively mandated functions. A comprehensive inventory of public water supply systems is an essential element in the development and implementation of effective Federal, State, and local water supply programs. Technical assistance and training are vital means to implement the full application of water supply technology to promote safe and adequate drinking water supply systems.

Purpose of Increase

To provide for the increased salary costs of the 1973 pay raise.

Significant 1973 Accomplishments

- Certified 600 interstate carrier water supply systems.
- Initiated the inventory of some 40,000 public water supply systems.
- Completed the comprehensive evaluation of four State water supply programs.
- Essentially completed the revision of the 1952 Drinking Water Standards.

1974 Objectives

- Certify 650 interstate carrier water supply systems.
- Essentially complete the inventory of 40,000 public water supply systems.
- Complete the comprehensive evaluation of six State water supply programs.
- Complete the revision of the Drinking Water Standards and develop guidelines for implementing their use.

Solid Wastes

SECTION TAB

Abatement and Control

Solid Wastes

Purpose

The solid waste abatement and control program has focused on the improvement of environmental quality by (1) eliminating health, ecological, and aesthetic damages from offensive disposal of wastes (primarily of non-hazardous wastes); (2) reducing cost and inconvenience to individuals from the inefficient, often irrational delivery of waste collection services; and (3) addressing conservation of resources through studies of alternative Federal policies to increase conservation. Technical assistance efforts, planning grants, and training were focused in 1973 to implement adequately developed, environmentally sound technology and to create the changes at the local level to improve productivity and provide sound financial support for waste management. Efforts were also devoted to developing solid waste management guidelines for municipal-type incinerators and sanitary landfills, pursuant to Section 211 of the Solid Waste Disposal Act. Under Section 211, Federal agencies must use these guidelines in dealing with solid wastes generated by Federal facilities and activities.

Over the past two years the Agency and its solid waste program have taken a very hard look at the critical environmental problems in solid waste and carefully assessed the proper role for the Federal Government in overcoming these problems. The proposed budget for 1974, which reflects the outcome of these deliberations, will allow the Federal Government to attack critical remaining problems.

The assessment also included the degree to which the objectives, stated above, in solid waste management had been met, and the adequacy of existing knowledge and technology to impact on solid waste problems at the local level. These assessments have resulted in a reorientation of the solid waste program toward the more pressing task of bringing Federal leadership into the proper management, disposal, and control of toxic hazardous solid wastes and toward encouraging localities, on their own, to use the very considerable tools which have been developed to upgrade the environment and efficiency aspects of their solid waste management systems. This leadership position will also include emphasis on dealing with solid waste problems caused by Federal management of facilities and activities and on further analysis of pressing resource recovery and resource conservation issues.

	<u>1973</u>	<u>1974</u>	<u>Increase or Decrease</u>
<u>Budget Authority</u>			
Technical Assistance....	\$9,472,300	\$3,560,000	-\$5,912,300
Academic Training Grants	220,000	...	-220,000
Planning.....	3,250,000	...	-3,250,000
Total.....	12,942,300	3,560,000	-9,382,300
<u>End-of-Year Employment</u>			
Technical Assistance....	216	100	-116
Academic Training Grants	...	...	...
Planning.....	...	...	...
Total.....	216	100	-116
<u>Man-Years, Total</u>	209	97	-112

Summary of Increases and Decreases

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Technical Assistance	\$9,472,300	\$3,560,000	-\$5,912,300

A decrease to implement the redirection of the solid waste program from problems of municipal solid waste management to dealing with toxic and hazardous solid wastes, reflecting the judgment that localities now have the ability to make needed improvements in municipal solid waste management on their own.

Academic Training Grants	220,000	...	-220,000
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A decrease reflecting termination of new training grant awards.

Planning	3,250,000	...	-3,250,000
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A decrease reflecting termination of new planning grant awards.

Abatement and Control

Solid Wastes Technical Assistance

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Technical assistance.....	\$9,472,300	\$3,560,000	-\$5,912,300

Technical assistance is provided to other Federal agencies, States, and localities with the objective of improving environmental performance while significantly lowering total solid waste management costs. Technical assistance includes extensive efforts in providing technical information, operationally-oriented training, and technical studies covering various aspects of solid waste management. EPA will issue solid waste management guidelines which Federal agencies must meet, and will review all Federal agencies' environmental impact statements to assess the solid waste impact.

Purpose of Decrease

In EPA's estimation, the technical assistance program has been particularly successful in helping selected localities upgrade the environmental and efficiency aspects of their municipal solid waste systems and in developing basic tools which could be used by other municipalities to achieve the same result. The reduction in technical assistance reflects (1) documentation of the successful application of solid waste management technology to selected locales which can be drawn on by other communities; (2) the assessment of the proper role of the Federal Government in solid wastes; and (3) the redirection of program priorities toward dealing with hazardous wastes.

Significant 1973 Accomplishments

- Provided technical assistance to 20 localities with the objective of improving environmental performance while significantly lowering systems costs. The results of this effort included: saving of \$6 million over a two-year period for Cleveland, Ohio; savings of 10 percent for Portland, Oregon, while expanding service area and doubling collection frequency; and collection costs reduced by 50 percent for River Rouge and Huntington Woods, Michigan.
- Developed substantial understanding of the determinants of productivity of solid waste management systems and of the steps necessary to improve such productivity.
- Closed an estimated 2,300 open dumps under the Mission 5000 Program.
- Completed draft guidelines for sanitary landfill and municipal incinerator operations to be used by Federal agencies under Section 211 of the Solid Waste Disposal Act.

1974 Objectives

- Continue to provide technical assistance to localities but on a less extensive scale.
- Significantly expand efforts to develop and encourage the adequate disposal of hazardous and toxic solid wastes.
- Inventory and assess solid waste management problems at Federal facilities and on Federal lands.

Abatement and Control
Solid Wastes
Academic Training Grants

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Academic training grants.....	\$220,000	...	-\$220,000

EPA has supported academic training of solid waste personnel through graduate training grants to selected universities. The purpose of this program was to provide a source of qualified solid waste professionals which Federal, State, and local levels of government could draw upon to staff their solid waste management systems.

While an examination of the academic training program has shown it to be generally effective in producing graduates in the solid waste management field, EPA believes that such a program is not necessary at this time, since there is no supply-demand gap at the State or local levels which would be substantially influenced by generation of more university-level solid waste management specialists. As documented in a recent Report to the Congress, EPA finds no substantial unfilled demand for such specialties and no substantial technological gaps in solid waste management which would be alleviated by additional specially trained manpower.

Purpose of Decrease

The termination of this program reflects the above considerations as well as the determination to redirect solid waste priorities to dealing with hazardous wastes.

Significant 1973 Accomplishments

- Supported master's level university training grant programs at nine universities.

Abatement and Control

Solid Wastes Planning

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Planning.....	\$3,250,000	...	-\$3,250,000

Planning grants have been awarded to State, local, regional, and interstate agencies. The objective of State planning grants have been to assess problems and State actions to eliminate those problems and to build State expertise in solid waste management. The objective of local/regional planning grants has been to hasten environmental improvement at the local level.

With completion of virtually all the basic State plans, EPA feels that its major planning objective has been achieved. In addition, while planning grants have been valuable contributors to building State solid waste programs, planning support too often has not resulted, at either the State or the local level, in implementation of activities which result in environmental improvement. Too often States continue marginal planning efforts and fail to implement action; e.g., rules and regulations for local communities, which can affect environmental performance. While local planning is needed, EPA has found subsidized local-regional planning has been more successful than formal planning which received no subsidy. In fact, informal planning initiated at the local level to meet an established need, appears to have been more effective and less costly than required and/or subsidized planning at the State or Federal level.

Purpose of Decrease

EPA has reexamined, in the light of the substantial progress made at the local level, the continued need for and the efficiency of solid waste planning and other similar planning efforts required or subsidized by the Federal Government or by several States. As a result, EPA has concluded that continued formalized planning subsidized at the Federal level, will not hasten or improve environmental change. The termination of the planning grants program reflects this assessment.

The termination of local/regional planning grant funding will not affect on-going projects which are performing satisfactorily. They have been fully funded for the duration of their project period, even though this may extend into 1974. Most of the States receiving planning grant funds are supported through 1974.

Significant 1973 Accomplishments

- Since State planning grants were initiated in 1966, all but one State and all trust territories have received funds to complete solid waste plans. To date, one plan has been substantially adopted and implemented.
- 40 States will have completed basic State plans.
- Since local/regional planning grants were initiated in 1971, 40 grants have been awarded.

Pesticides

Abatement and Control

Pesticides

Purpose

EPA's pesticides abatement and control program is predominantly directed toward regulation of pesticides through registration of pesticide products under authority of the Federal Environmental Pesticide Control Act and setting of pesticide residue tolerances under authority of the Food, Drug, and Cosmetic Act. These activities are closely supported by EPA's pesticide research and enforcement programs, both of which are discussed in other sections.

Other key elements of the program are the monitoring and surveillance of environmental levels of pesticides, studies of effects of pesticides on human health, and analyses of samples of marketed pesticide products. These activities provide much of the information needed to effectively carry out the registration and tolerance petition programs.

Finally, the program includes the investigation of pesticide accidents; the provision of technical assistance and information to State and local regulatory and health agencies and other Federal agencies; and provision of assistance to improve the knowledge and technical capabilities of Federal, State, and local personnel involved in pesticide activities.

	<u>1973</u>	<u>1974</u>	<u>Increase or Decrease</u>
<u>Budget Authority</u>			
Registrations and Tolerances.	\$5,685,200	\$7,001,700	+\$1,316,500
Monitoring.....	4,839,000	4,999,800	+160,800
Technical Assistance.....	3,588,000	5,223,000	+1,635,000
Total.....	14,112,200	17,224,500	3,112,300
<u>End-of-Year Employment</u>			
Registrations and Tolerances.	287	337	+50
Monitoring.....	81	86	+5
Technical Assistance.....	93	168	+75
Total.....	461	591	+130
<u>Man-Years, Total</u>	447	525	+78

Summary of Increases and Decreases

	<u>1973</u>	<u>1974</u>	<u>Change</u>
<u>Registrations and Tolerances</u>	<u>\$5,685,200</u>	<u>\$7,001,700</u>	<u>+\$1,316,500</u>

To support registration and classification of all new applications, prepare for the registration of intrastate products and to carry out the other new responsibilities imposed by the new Federal Environmental Pesticide Control Act; and to provide for the increased salary costs of the 1973 pay raise.

<u>Monitoring</u>	<u>4,839,000</u>	<u>4,999,800</u>	<u>+160,800</u>
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To initiate development of the National Pesticide Monitoring Plan as required by the Federal Environmental Pesticide Control Act; to assume funding of the estuarine monitoring program; and to provide for the increased salary costs of the 1973 pay raise.

<u>Technical Assistance</u>	<u>3,588,000</u>	<u>5,223,000</u>	<u>+1,635,000</u>
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To provide increased assistance to States to enable the training of pesticide applicators, the development of State programs for certifying applicators and the strengthening of accident reporting and investigation programs; and to provide for the increased salary costs of the 1973 pay raise as well as the full-year employment costs of new positions filled in 1973.

Abatement and Control
Pesticides
Registration and Tolerances

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Registrations and tolerances	\$5,685,200	\$7,001,700	+\$1,316,500

The Federal Environmental Pesticide Control Act of 1972 modified and expanded the activities required of EPA's pesticide registrations and tolerances program under the Federal Insecticide, Fungicide and Rodenticide Act. Since 1947, EPA and its predecessor agencies have been regulating interstate pesticide products by registering them for specific uses and assuring that their labels contain adequate directions for use and safety precautions to protect human health and the environment. The new Act adds the registration of intrastate products and requires classification of products for "general" or "restricted" use, if such restriction is necessary to adequately safeguard health or the environment. The new Act also provides for the issuance of experimental use permits and requires significant changes in EPA's internal procedures for review and processing of registrations. Activities required in support of this effort include development of registration and classification standards and test protocols; development of improved methods for detecting pesticide chemicals and their residues; expanded testing of products for safety and efficacy, scientific review of previously registered products to determine if their registrations should be continued, cancelled, or suspended; support of appeals procedures; and maintenance of a data system to provide information on registered products and their uses.

Purpose of Increase

The increase is to enable EPA to handle new applications and the reregistration and classification of presently registered interstate products and to prepare for the registration of intrastate products. With this increase, EPA will maintain an acceptable overall elapsed time for registration applications and tolerance actions and will develop operating efficiencies to enable expeditious handling of the new requirements of the Act. The increase also includes funds to provide for the increased salary costs of the 1973 pay raise.

Significant 1973 Accomplishments

- Processed 30,000 to 35,000 application actions for pesticide registration and some 340 actions for new, amended, and supplemental tolerances.
- Reduced the number of over-90-day registration actions from 240 at the beginning of the year to none by the end of the year.
- Reduced the number of over-90-day tolerance petition actions from 40 at the beginning of the year to none by the end of the year.

1974 Objectives

- Maintain a working level of 1,500 registration actions and tolerance actions in process at any one time during the year.
- Process all registration and tolerance actions within 90 days.
- Develop and publish new regulations on registration and classification of pesticides, standards for certification of applications, permits for experimental use, registration of establishments and indemnities.

Abatement and Control

Pesticides Monitoring

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Monitoring	\$4,839,000	\$4,999,800	+\$160,800

Pesticides and their residues in the environment are monitored to provide essential feedback information for the registration and tolerance program, to show changes in environmental concentrations of pesticides, and to provide specific data for risk/benefit assessments. The results of these efforts contribute to improved registration and tolerance standards, the development of better and safer label directions, and support of enforcement actions. Among the monitoring efforts being carried out are sampling and analysis of the soil and aquatic environments for pesticide residues, long range epidemiological studies, and the analysis of marketed pesticide products collected by the pesticide enforcement program. The effectiveness and efficiency of these efforts will be improved by the development of a National Pesticide Monitoring Plan as required by the Federal Environmental Pesticide Control Act.

Purpose of Increase

To initiate development of the national monitoring plan, including coordination with appropriate agencies needed to perform components of the plan, and to assume funding of estuarine monitoring contracts previously funded by NOAA so as to assure continued monitoring of shellfish, silt, water, and plankton from 200 major estuaries. The increase also provides for the increased salary costs of the 1973 pay raise.

Significant 1973 Accomplishments

- Collected and analyzed soil samples from 41 states and five urban areas for pesticides and heavy metals.
- Collected and analyzed 800 samples from 200 major estuaries.
- Supported monitoring of human tissue samples from 75 urban areas.
- Supported epidemiological studies in 13 states.
- Analyzed 6,000 samples of marketed pesticides for chemical content and conformity to label statements.

1974 Objectives

- Develop a national pesticides monitoring plan.
- Collect and analyze 2,300 soil samples from 41 states and five urban areas.
- Collect and analyze samples from 200 major estuaries.
- Continue support and update annual data assessments of the human health effects that result from long periods of low level exposure to pesticides.
- Analyze 6,000 marketed pesticide samples.
- Develop surveillance procedures for experimental use permits.

Abatement and Control

Pesticides Technical Assistance

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Technical assistance....	\$3,588,000	\$5,223,000	+\$1,635,000

This program is directed toward providing assistance to the States as well as other Federal agencies to enable them to develop and maintain adequate programs. Under the new Act, the principal areas of assistance to the States will be assistance in developing certification plans for certifying pesticide applicators, assistance in training applicators, assistance in developing effective programs for reporting and investigating accidents, for controlling the storage and disposal of excess stocks of pesticides, and for monitoring experimental use permits. The program also has and will continue providing assistance in the training of farm workers in the safe handling and use of toxic replacements for DDT.

Purpose of Increase

To provide increased assistance to the States to enable the training of pesticide applicators, the development of State programs for certifying applicators, the strengthening of accident reporting and investigation programs, and the conduct of other State activities. The increase also provides for the increased salary costs of the 1973 pay raise and the full-year employment costs of new positions filled in 1973.

Significant 1973 Accomplishments

- Conducted Project Safeguard in 14 States, in coordination with the Department of Agriculture, to train and inform pesticide users in safe handling of toxic replacements for DDT.
- Initiated design of an accident data reporting system and initiated a coordinated EPA-State pesticide accident reporting and investigation program.
- Initiated survey of State applicator training and certification capabilities, facilities, and needs.
- Completed State-by-State profiles of organizations, programs, problems, and needs.

1974 Objectives

- Complete the assessments of State profiles of capabilities and needs.
- Complete State survey of applicator training and certification needs and cosponsor training projects to upgrade State officials in the larger State role under the new Act.
- Publish regulations for certification of applicators.
- Initiate financial assistance for training of certified applicators.
- Complete microfilming of registration records to provide improved accessibility and retrievability of manufacturer and product data.
- Continue development of the accident reporting and investigation system.
- Continue to assist States in training and informing farm pesticide users in the safe handling and use of replacements for DDT.

Radiation

Abatement and Control

Radiation

Purpose

The radiation program's abatement and control activities have as their main focus EPA's responsibilities for setting the basic policies which provide the basis for all Federal radiation protection programs and for setting specific standards for radiation levels in the general environment. Other components of the program contribute to the standards and guidelines effort, or to the improvement of State, local, or other Federal radiation control programs. These include monitoring to determine levels of environmental radiation; provision of technical assistance to other governmental agencies; the conduct of reviews of federally supported or licensed projects which are a source of environmental radiation and related engineering studies; as well as the support of training programs.

	<u>1973</u>	<u>1974</u>	<u>Increase or Decrease</u>
<u>Budget Authority</u>			
Standards and Guidelines.....	\$792,900	\$813,900	+\$21,000
Monitoring.....	1,579,600	1,597,000	+17,400
Technical Assistance.....	1,992,600	2,156,800	+164,200
Academic Training Grants.....	483,000	83,000	-400,000
Total.....	4,848,100	4,650,700	-197,400
<u>End-of-Year Employment</u>			
Standards and Guidelines.....	29	29	...
Monitoring.....	66	66	...
Technical Assistance.....	96	96	...
Academic Training Grants.....	...	...	...
Total.....	191	191	...
<u>Man-Years, Total</u>	185	185	...

Summary of Increases and Decreases

	<u>1973</u>	<u>1974</u>	<u>Change</u>
<u>Standards and Guidelines</u>	<u>\$792,900</u>	<u>\$813,900</u>	<u>+\$21,000</u>

To provide for the increased salary costs of the 1973 pay raise.

<u>Monitoring</u>	<u>1,579,600</u>	<u>1,597,000</u>	<u>+17,400</u>
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To provide for the increased salary costs of the 1973 pay raise.

<u>Technical Assistance</u>	<u>1,992,600</u>	<u>2,156,800</u>	<u>+164,200</u>
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To support additional contractual studies related to the environmental impact of components of the nuclear fuel cycle, and to provide for the increased salary costs of the 1973 pay raise.

<u>Academic Training Grants</u>	<u>483,000</u>	<u>83,000</u>	<u>-400,000</u>
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Reduction made possible by shifting the funding of academic training grants from a forward-funding basis to a current-year basis.

Abatement and Control
Radiation
Standards and Guidelines

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Standards and guidelines.....	\$792,900	\$813,900	+\$21,000

EPA has two primary responsibilities associated with radiation protection standards and guidance. The first of these involves the formulation of basic Federal policies on radiation protection standards. The second responsibility is to establish environmental protection standards within these policies to limit radiation levels in the general environment for classes of sources.

Purpose of Increase

To provide for salary costs associated with the 1973 pay raise.

Significant 1973 Accomplishments

- Reviewed scientific bases for existing guidelines.
- Accumulated data on standards for light water cooled reactors and fuel reprocessing plants.

1974 Objectives

- Complete investigation of costs, benefits, and risks for uranium fuel cycle and issue standards for that cycle and associated fuel reprocessing facilities.
- Develop basic data for environmental protection standards for nuclear fuel fabrication plants.
- Increase efforts to develop data for future standards on long-lived transuranic radionuclides such as plutonium.

Abatement and Control

Radiation Monitoring

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Monitoring.....	\$1,579,600	\$1,597,000	+\$17,400

The core of EPA's radiation monitoring activity is the National Environmental Radiation Monitoring Program which involves State and local as well as Federal effort. It is aimed at obtaining baseline data on levels of existing environmental radiation; determining any changes occurring in the radiological quality of the environment, the magnitude of this change, and the nature and probable source of the contaminant; providing data for estimating population exposure to ionizing and nonionizing radiation; determining if environmental levels are within established radiological guidelines and standards; assisting in evaluation of the effectiveness of existing control programs; publishing environmental radiological quality data from Federal, State, and utility monitoring programs; establishing programs for analytical quality control services to assure compatibility and reliability of the data from various participating laboratories; and providing consultation and technical assistance on monitoring activities to regional offices, States, and other Federal agencies.

Purpose of Increase

To provide for increased salary costs associated with the 1973 pay raise.

Significant 1973 Accomplishments

- Established program for determination of compliance of nuclear power industry with general environmental radiation guidelines.
- Established program to determine impact of nonionizing radiation on man and the environment.
- Continued field investigations of uranium mill tailings problem in nine western States.
- Operated existing radiation surveillance networks and collected and published radiological data.
- Developed models for predicting environmental impact of radioactive discharges from nuclear power facilities.
- Provided quality control services for Federal, State, and local agencies.

- Assisted States in developing emergency response plans.
- Administered State contracts for monitoring environment around nuclear facilities.

1974 Objectives

- Modify surveillance networks to better support environmental impact evaluations and radiation standard setting.
- Conduct field studies of selected sources of high power nonionizing electromagnetic radiation to support issuance of guidance to Federal agencies on thermal effects of radio and microwave radiation.
- Evaluate environmental effects of nuclear power plant operation on man.
- Continue development of pathway and dose model validation.
- Continue monthly publication of Radiation Data and Reports.
- Continue quality assurance and uranium mill tailings efforts.

Abatement and Control

Radiation Technical Assistance

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Technical assistance.....	\$1,992,600	\$2,156,800	+\$164,200

EPA provides radiation technical assistance in three primary areas: environmental impact reviews; manpower planning and training; and information and assistance to State and local governments. As a part of its overall responsibilities for review of environmental impact statements submitted by other Federal agencies, EPA conducts detailed evaluations of proposals for the design, construction, and modification of radiation producing facilities which are to be operated by Federal agencies or are subject to Federal regulation. In order to provide the technical base necessary to conduct these environmental assessments, EPA also conducts a series of engineering studies aimed at providing a better understanding of the design and operation of devices and systems for containment, treatment, disposal of radioactive wastes. Manpower planning and training is supported by EPA through a coordinated regional program designed to offer short course training to persons already employed in radiation control activities in State, local, and other Federal agencies. These courses are conducted by EPA staff and are intended to improve the skills and knowledge of trainees in specific subject areas. EPA also maintains a small staff in each of its ten regional offices to provide continuing liaison and assistance to State and local environmental radiation programs.

Purpose of Increase

To support contractual studies related to the environmental impact of components of the nuclear fuel cycle and to provide for the increased salary costs associated with the 1973 pay raise.

Significant 1973 Accomplishments

- Reviewed approximately 45 environmental impact statements related to the nuclear power industry and approximately 30 statements covering such diverse radiation producing activities as underground weapons testing, aerospace applications, methods of shipment of nuclear materials, and facilities and equipment for scientific research.
- Conducted engineering studies of two operating reactors and environmental impact associated with liquid metal fast breeder reactor.

- Organized regional training committees to assess needs involving manpower planning in States.
- Supported two institutions providing technical training to 58 technicians.
- Provided technical information and assistance to State and local governments, including promotion of State control programs and development and testing of emergency plans.

1974 Objectives

- Continue review of environmental impact statements.
- Complete engineering study on boiling water reactor.
- Initiate study on potential impact of accidents at nuclear fuel reprocessing and fabrication facilities.
- Continue support of technician training program.
- Support workshops and seminars in support of manpower planning and training needs identified by regional training committees.
- Increase regional technical assistance efforts in radiation control.

Abatement and Control

Radiation Academic Training Grants

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Academic training grants.....	\$483,000	\$83,000	-\$400,000

To assure availability of academic resources adequate to provide professionally and technically trained personnel for staffing of State and Federal radiation control programs, EPA makes grants to selected academic institutions to support partial costs of faculty salaries and equipment and, in some instances, tuition and stipends for selected students.

Purpose of Decrease

To realize a savings in Federal Government obligations by shifting to a current year basis in grant funding from a forward funding policy.

Significant 1973 Accomplishments

- Supported eight institutions offering graduate training for 56 prospective entry level radiation protection professionals.
- Provided tuition and stipend support for 35 students enrolled in these programs.

1974 Objectives

- Continue to support seven institutions with about 49 enrolled students.
- Reduce student support in accordance with EPA policy.

- Distributed, upon request, 80,000 design manuals for use by municipal waste water design engineers.
- Prepared design manuals for pulp/paper and iron/steel industries.

1974 Objectives

- Present ten regular design seminars for municipal and industrial design engineers.
- Prepare design manuals on nitrogen control and the use of oxygen aeration for municipal waste water treatment plants.
- Prepare industrial design manuals on the power and textile industry including subject matter on air monitoring.

Noise

Abatement and Control

Noise

Purpose

New authorities under the Noise Control Act of 1972 provide for a strong Federal involvement in the abatement and control of noise pollution. The new Act authorizes the establishment of noise emission standards for products distributed in commerce, for railroads and motor carriers, and for aircraft. Noise emission standards will reflect the degree of noise reduction achievable through application of the best available technology, taking into account the cost of compliance and appropriate safety considerations.

Technical assistance has been extended under the new Act to include, in addition to Federal agencies, assistance to State and local governments to facilitate their development and enforcement of ambient noise standards. To this end, EPA disseminates information on the effects of noise, acceptable noise levels, and techniques for noise measurement and control.

	<u>1973</u>	<u>1974</u>	<u>Increase or Decrease</u>
<u>Budget Authority</u>			
Standards and Guidelines	\$1,232,000	\$2,305,000	+\$1,073,000
Technical Assistance....	851,100	1,182,500	+331,400
Total.....	2,083,100	3,487,500	+1,404,400
<u>End-of-Year Employment</u>			
Standards and Guidelines	...	14	+14
Technical Assistance....	12	17	+5
Total.....	12	31	+19
<u>Man-Years, Total.....</u>	11	24	+13

Summary of Increases and Decreases

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Standards and Guidelines	\$1,232,000	\$2,305,000	+\$1,073,000

To provide for the development of noise emission standards required to implement the Noise Control Act of 1972.

Technical Assistance	851,100	1,182,500	+331,400
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To provide technical assistance to State and local governments to assist their development and enforcement of ambient noise standards, and to provide for the increased salary costs of the 1973 pay raise.

Abatement and Control
Noise
Standards and Guidelines

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Standards and guidelines	\$1,232,000	\$2,305,000	+\$1,073,000

The Noise Control Act of 1972 requires EPA to promote an environment free from noise that jeopardizes public health and welfare. The major regulatory thrust of this legislation is the establishment of noise emission standards for newly manufactured products, which are major sources of noise, and for interstate carriers.

Purpose of Increase

The increase is necessary to provide for the development of noise emission standards required to implement the Noise Control Act of 1972.

Significant 1973 Accomplishments

- Began identification of noise criteria affecting public health or welfare necessary for publication of criteria document.
- Prepared information on environmental noise required to protect public health and welfare.
- Developed information for report to Congress on airport and aircraft noise.
- Consulted with Federal Aviation Administration on the prescription and amendment of standards for measurement of aircraft noise and sonic boom.

1974 Objectives

- Issuance of noise criteria document and report identifying major sources of noise and control techniques.
- Compile and publish information on methods of controlling environmental noise.
- Publish information on levels of noise necessary to protect the public health and welfare.

- Promulgate regulation requiring certificates of compliance with Federal noise standards for importation of foreign products.
- Promulgate regulations to control and abate noise from surface carriers engaged in interstate commerce.
- Complete a comprehensive study of aircraft and airport noise and submit a report to Congress.
- Recommend aircraft noise regulations to the Federal Aviation Administration.
- Implement labeling requirements of the Noise Control Act.

Abatement and Control

Noise Technical Assistance

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Technical assistance.....	\$851,100	\$1,182,500	+\$331,400

EPA provides technical information and assistance to State, local, and other Federal agencies for the abatement and control of noise that jeopardizes the public health or welfare. Assistance is provided in the form of training and help in the selection and operation of noise abatement and control equipment. Information is developed and disseminated to State, local, and other Federal agencies on model laws and ordinances, noise effects, and measurement and control technology.

Purpose of Increase

The increase will permit EPA to establish a base for undertaking a comprehensive State and local assistance effort to provide adequate noise control legislation, codes and programs, and will provide for the increased salary costs of the 1973 pay raise.

Significant 1973 Accomplishments

- Assisted in the development and enforcement of ambient noise levels by advising State and local governments on training of noise control personnel.
- Assisted State and local governments on the selection and operation of noise measurement and control equipment.
- Developed information on State and local laws and ordinances.
- Disseminated information on noise effects, acceptable levels of noise, and measurement and control techniques.
- Coordinated Federal noise abatement and control effort.

1974 Objectives

- Undertake a comprehensive State and local assistance effort to provide adequate noise control legislation, code, and programs.
- Develop Federal interagency noise abatement and control coordination mechanisms.
- Prepare and distribute guidelines to assist Federal agencies to assess objectionable noise.
- Inventory noise control and abatement activities at Federal installations.
- Establish a Low-Noise-Emission Product Advisory Committee to assist in determining which products qualify for certification.
- Consult with other Federal agencies regarding noise emission regulations on imports and development of improved methods and standards for measurement and monitoring of noise.
- Review about 2,000 environmental impact statements to determine whether the resulting noise levels adversely affect the environment.

Program Management and Support

Abatement and Control

Program Management and Support

Purpose

This activity encompasses the overall management of and support for the Abatement and Control programs described in the foregoing sections. It also covers the staffing and funding of the Office of Toxic Substances and the Division of Intergovernmental Activities of the Office of Legislation.

	<u>1973</u>	<u>1974</u>	<u>Increase or Decrease</u>
<u>Budget Authority</u>			
Program Management.....	\$7,168,600	\$10,541,000	+\$3,372,400
Program Support.....	15,567,600	20,940,600	+5,373,000
Grant and Contract Review Committees.....	2,000,000	...	-2,000,000
Total.....	24,736,200	31,481,600	+6,745,400
<u>End-of-Year Employment</u>			
Program Management.....	266	254	-12
Program Support.....	...	...	...
Grant and Contract Review Committees.....	...	...	...
Total.....	266	254	-12
<u>Man-Years, Total</u>	258	246	-12

Summary of Increases and Decreases

	<u>1973</u>	<u>1974</u>	<u>Change</u>
<u>Program Management</u>	<u>\$7,168,600</u>	<u>\$10,541,000</u>	<u>+\$3,372,400</u>

Air and water programs...	2,994,800	2,919,800	-75,000
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A decrease in funding requirements made possible by a reduction in staff during 1973.

Categorical programs.....	3,396,200	2,825,600	-570,600
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A decrease resulting from the comparative transfer of the managerial staff of the Office of Solid Waste Management to Abatement and Control, Solid Wastes.

Toxic substances.....	469,000	4,481,300	+4,012,300
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To expand the staff of the Office of Toxic Substances, to provide for additional toxic substances studies, and to provide the increased salary costs of the 1973 pay raise.

Intergovernmental activities.....	308,600	314,300	+5,700
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To meet the increased salary costs of the 1973 pay raise.

<u>Program Support</u>	<u>15,567,600</u>	<u>20,940,600</u>	<u>+5,373,000</u>
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To cover a prorated share of the Agency's increased funding requirements for common support services--refer to the section on Agency and Regional Management for a description of these requirements.

<u>Grant and Contract Review Committees</u>	<u>2,000,000</u>	<u>...</u>	<u>-2,000,000</u>
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A reduction for this purpose is achieved due to the Agency requirement that such committees will be funded by the programs concerned.

Abatement and Control

Program Management and Support Program Management

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Air and water programs..	\$2,994,800	\$2,919,800	-\$75,000

This activity provides for overall management of the Office of Air and Water Programs, including the development of program policies and strategies, the overall planning of air and water activities, the monitoring and review of program performance, including that performed in the regions, and the direction of the program activities performed in headquarters. To carry out these functions, this activity provides for the following staffing of managerial personnel:

	<u>1973</u>	<u>1974</u>
Office of Air and Water Programs.....	45	45
Office of Water Programs Operations.....	8	8
Office of Water Planning and Standards.....	6	6
Office of Air Quality Planning and Standards..	12	12
Office of Mobile Sources Air Pollution Control	12	12

Purpose of Decrease

The 1974 funding requirements of this activity will be less than those of 1973 because of reductions in the staffing of the above offices during 1973 (these reductions are reflected in the above staffing figures for both 1973 and 1974). The increased salary costs of the 1973 pay raise are offset by the reduced funding requirements.

Categorical programs....	\$3,396,200	\$2,825,600	-\$570,600
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This activity provides for overall management of the Office of Categorical Programs, including the development of program policies and strategies, the overall planning of categorical program activities, the monitoring and review of program performance, including that performed in the regions, and the direction of the program activities performed at headquarters. To carry out these functions, this activity provides for the following staffing of managerial personnel:

	<u>1973</u>	<u>1974</u>
Office of Categorical Programs	23	23
Office of Solid Waste Management Programs	30	...
Office of Pesticides Programs	64	64
Office of Radiation Programs	25	25
Office of Noise Control Programs	3	6

Purpose of Decrease

The managerial staff and funding requirements of the Office of Solid Waste Management are included in the Abatement and Control, Solid Waste resources described in a foregoing section. This comparative transfer offsets the increased salary costs of the 1973 pay raise and the increased costs for management of the Office of Noise Control Program and further provides for the decreased funding requirements indicated above. The increase in the managerial staff of the Office of Noise Control Programs is to provide for the management and direction of the expanded noise program required to implement the Noise Control Act of 1972.

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Toxic substances....	\$469,000	\$4,481,300	+\$4,012,300

All resources for EPA's Office of Toxic Substances are included in this activity. The Office coordinates EPA's many activities related to the research, investigation, and regulation of toxic substances--these being administered by the Office of Research and Monitoring, the Office of Air and Water Programs, and other components of the Agency. This Office also conducts and supports contractual studies to perfect EPA's knowledge about the types, quantities, and occurrences of toxic substances in the environment; the origin and subsequent processes of distribution and migration of these substances into the environment; and other facets of toxic substances such as methods of testing and control. These studies cover aspects of toxic substances that are not covered by the toxic materials activities of the other components of the Agency.

Purpose of Increase

To expand the staff of the Office of Toxic Substances from 26 to 41 and to provide for additional studies of the type described above (during 1973, the contracted studies of the Office of Toxic Substances were funded with \$1,250,000 of 1972 carryover funds). Considerable work needs to be accomplished to gain a comprehensive knowledge of the vast array of toxic substances which now invade the environment and which potentially may be causing serious but yet undetected health and environmental effects. This increase also provides for the increased costs of the 1973 pay raise.

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Intergovernmental activities....	\$308,600	\$314,300	+\$5,700

This activity provides for the staffing and funding of the Intergovernmental Relations Division of the Office of Legislation. This Division provides the liaison between and coordination of EPA's programs with State and interstate organizations. The Division has a staff of 12.

Purpose of Increase

To provide for the increased salary costs of the 1973 pay raise.

Abatement and Control

Program Management and Support Program Support

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Program support.....	\$15,567,600	\$20,940,600	+\$5,373,000

This element constitutes the prorated share of EPA's total funding requirements for common support services. These funding requirements cover certain agencywide and regional lease, communication, and other common service costs which are managed through a single headquarters and ten regional accounts. These requirements are fully described in the section covering Agency and Regional Management. The prorated share charged under this element represents that portion required to support the programs funded and conducted under the Abatement and Control appropriation account.

Purpose of Increase

This increase, together with those under similar elements under the Research and Development and Enforcement appropriation accounts, is described under the section covering Agency and Regional Management.

Abatement and Control
Program Management and Support
Grant and Contract Review Committees

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Grant and contract review committees.....	\$2,000,000	...	-\$2,000,000

In 1973, the House Appropriations Committee earmarked, by appropriation language, \$2,000,000 for Abatement and Control specifically to fund advisory committees. The Committee indicated the job of cleaning up the environment is so big and so important to the future of our country that it is absolutely essential that we utilize such resources as we can in a manner that will yield the greatest return. Therefore, they recommended that advisory committees be utilized to review the priority of the Agency and to advise the Administrator as to which contracts or grants will provide the greatest return to the Agency in relation to those priorities.

As a result of this action, an exhaustive review was conducted of the existing advisory committee structure, its possible use in complying with the requirements of the Appropriation Act, and the existing and new advisory committees in the Agency's complex grant and control program. The review was difficult in view of the stringent requirements of the Federal Advisory Committee Act of 1972, effective January 5, 1973; however, EPA now has various committees designated to fulfill these requirements.

Purpose of Decrease

The budget proposes the elimination of the specific earmarking of funds in the appropriation language for this purpose. However, EPA will still continue this committee review process in 1974 with funding to be accommodated by the programs concerned, since the review also indicated that the funds required were considerably less than that earmarked for 1973.

Enforcement

Enforcement

Purpose

Enforcement responsibilities are in the areas of air pollution control, water pollution control, and pesticides control. Much of the effort is in support of or in cooperation with State and local enforcement programs, such as the enforcement of ambient air quality and air stationary source standards; navigable and interstate water quality standards; and issuance of discharge permits. Some efforts, however, are primarily Federal responsibilities, such as the enforcement of air mobile source standards and pesticides product registration. Enforcement includes such actions as notices of violation, abatement orders, enforcement conferences, civil and criminal court actions, and in the case of pesticides, recalls and seizures. Included also is the overall management and support of the enforcement programs.

<u>Budget Authority</u>	<u>1972^{a/}</u>	<u>1973</u>	<u>1974</u>
Air.....	\$1,143,000	\$4,301,000	\$8,671,400
Water Quality.....	13,847,900	20,867,100	24,453,000
Pesticides.....	1,197,400	1,626,300	3,117,600
Program Management and Support.....	5,966,000	8,780,000	11,157,600
Total.....	22,154,300	35,574,400	47,399,600

<u>Manpower Resources</u>	<u>1973</u>	<u>1974</u>
End-of-Year Employment..	1,477	1,682
Man-Years.....	1,251	1,556

a/ Provided for comparative purposes and represents resources approved under the appropriation "Operations, Research, and Facilities" for activities now carried under this appropriation.

Air

SECTION TAB

Enforcement

Air

Purpose

The air enforcement program is directed toward achieving compliance with the standards and regulations established for stationary and mobile sources of air pollution under the provisions of the Clean Air Act, as amended. The stationary source enforcement program is being undertaken in cooperation with the States and includes enforcement of State implementation plans, New Source Performance Standards, and National Emission Standards for Hazardous Air Pollutants. The mobile source enforcement program is primarily a Federal effort directed toward achieving compliance with fuel and motor vehicle emission standards and regulations.

	<u>1973</u>	<u>1974</u>	<u>Increase or Decrease</u>
<u>Budget Authority</u>			
Stationary Source Enforcement	\$3,662,600	\$7,451,400	+\$3,788,800
Mobile Source Enforcement....	638,400	1,220,000	+581,600
Total.....	4,301,000	8,671,400	+4,370,400
<u>End-of-Year Employment</u>			
Stationary Source Enforcement	191	261	+70
Mobile Source Enforcement....	36	36	...
Total.....	227	297	+70
<u>Man-Years, Total.....</u>	162	263	+101

Summary of Increases and Decreases

	<u>1973</u>	<u>1974</u>	<u>Change</u>
<u>Stationary Source Enforcement</u>	<u>\$3,662,600</u>	<u>\$7,451,400</u>	<u>+\$3,788,800</u>

An increase of \$2,700,000 will result from the comparative transfer of 70 employees from their current abatement and control activity of providing assistance to States for the development of State implementation plans to the enforcement activity.

The remainder of the increase is to cover the full-year employment costs of new positions filled in 1973 and to provide for the increased salary costs of the 1973 pay raise.

<u>Mobile Source Enforcement</u>	<u>638,400</u>	<u>1,220,000</u>	<u>+581,600</u>
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To collect data, design a sampling strategy and develop the sampling capability for enforcing compliance with the recently promulgated regulations requiring the availability for sale of unleaded gasolines, to collect data and conduct confirmation tests relative to curbing tampering with automotive emission control devices, to cover the full-year employment costs of positions filled in 1973, and to provide for the increased salary costs of the 1973 pay raise.

Enforcement

Air Stationary Source Enforcement

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Stationary source enforcement	\$3,662,600	\$7,451,400	+\$3,788,800

The stationary source air enforcement program is designed to effectively utilize the enforcement authorities provided by the Clean Air Act to ensure nationwide compliance with State Implementation Plans (SIP's), New Source Performance Standards (NSPS), and National Emission Standards for Hazardous Air Pollutants (NESHAPS). Responsibility for enforcement of standards applicable to stationary sources is shared by EPA and the States. Primary responsibility for enforcement of State Implementation Plans rests with the States although EPA must assume responsibility where States fail to act.

Accordingly EPA's stationary source enforcement program consists of surveillance, monitoring, and evaluation of State enforcement programs; provision of technical, legal, and case development assistance to State programs; and selective Federal enforcement of implementation plan requirements designed to encourage and support State efforts and to foster voluntary compliance.

Purpose of Increase

An increase of \$2,700,000 will result from the planned transfer of 70 employees and positions from the abatement and control air program to this activity. This transfer reflects a transition from the development of State implementation plans to the execution and enforcement of these plans. By and large, the major effort of assisting the States in developing implementation plans required by the Clean Air Amendments of 1970 has been completed and the task ahead is to assist the States or otherwise see to the execution of these plans. The transferred resources will be employed to work more closely with State enforcement programs in the attainment of two basic objectives: (1) establishment of reasonable compliance schedules, and (2) achievement of compliance by all sources subject to emission control regulations. The remainder of the increase is to cover the full-year employment costs of new positions filled in 1973 and to provide for the increased salary costs of the 1973 pay raise.

Significant 1973 Accomplishments

- Established effective liaison with State enforcement programs.
- Reviewed and approved an estimated 50,000 compliance schedules submitted by the States.

- Developed an automated information system to store basic data from State compliance schedules and enforcement actions for hazardous air pollutants.
- Evaluated State enforcement programs and developed a Federal enforcement strategy for each State.
- Reviewed approximately 3,000 waiver requests from sources unable to comply with hazardous air pollutant standards.
- Issued approximately 20 notices of violations and initiated an estimated 10 abatement orders and conferences and two court actions.

1974 Objectives

- Assist States in developing and applying reasonable compliance schedules under State implementation plans.
- Stimulate and assist the development of strong, effective State enforcement programs.
- Provide direct Federal enforcement of NSPS and NESHAPS except where delegated to States, including notices of violations, abatement orders, and court actions as necessary.
- Issue an estimated 500 notices of violation, initiate approximately 250 abatement orders and 50 court actions to achieve compliance with standards.

Enforcement

Air Mobile Source Enforcement

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Mobile source enforcement.....	\$638,400	\$1,220,000	+\$581,600

The mobile source enforcement program is directed toward achieving compliance with the vehicle and aircraft emission standards and fuel regulations promulgated by EPA under the provisions of the Clean Air Act, as amended. The activities of this program include preventing the introduction into commerce of uncertified new domestic and imported vehicles; examining the certification procedures of domestic and foreign automobile manufacturers; enforcement of the assembly-line inspection, recall, warranty and tampering provisions of the Act; and enforcing Federal regulations on fuels and fuel additives.

Purpose of Increase

The increase will provide for the initiation of contracts to collect data and design a sampling program and for the purchase of mobile laboratories to establish the capability of enforcing the recently promulgated regulations requiring the availability of unleaded gasoline by July 1974. The increase will also provide for the initiation of contracts to collect data and perform vehicle emission tests to further the ongoing enforcement of regulations prohibiting automobile companies and dealers from tampering with automotive emission control devices. Finally, the increase is to provide for the full-year employment costs of new positions filled in 1973 and to provide for the increased salary costs of the 1973 pay raise.

Significant 1973 Accomplishments

- Developed a detailed plan to assure the availability of lead-free gasoline by July 1974.
- Developed a computer system for use in monitoring imported motor vehicles and engines subject to Federal air pollution emissions controls.
- Launched an information program to acquaint the public, importers, and customs officials with requirements of the law relating to imported vehicles.
- Initiated a program to inspect manufacturers' vehicle certification records and procedures to assure that certification activities are in compliance with the Clean Air Act standards and regulations.

- Developed regulations governing tampering with emission control devices and investigated potential violations.
- Developed regulations requiring manufacturers to provide specific warranty coverage and to submit written warranties for EPA review.
- Conducted approximately 300 inquiries, inspections, and investigations of possible violations of standards and regulations, conducted five public hearings on extensions and waivers, initiated three recalls of in-use vehicles to correct deficiencies, and initiated eight civil actions to obtain compliance with standards and regulations.

1974 Objectives

- Develop a sampling program for enforcing compliance with lead-free gasoline regulations.
- Continue the inspection of vehicle certification records and procedures.
- Encourage and assist States in the adoption of antitampering legislation to supplement Federal tampering control efforts.
- Monitor an estimated 3 million imported vehicles and engines for compliance with emission control regulations.
- Conduct approximately 2,000 inquiries, inspections, and investigations of possible violations of standards and regulations, conduct an estimated six public hearings on requests for extensions and waivers, initiate approximately six recalls to correct deficiencies on in-use vehicles, and initiate 70 civil actions to obtain compliance with standards and regulations.

Water Quality

SECTION TAB

Enforcement
Water Quality

Purpose

This activity encompasses the conduct of various enforcement actions to achieve compliance with water quality standards, oil and hazardous materials regulations and waste discharge permits issued, established, or otherwise provided by the Federal Water Pollution Control Act, as amended. It also includes the review and issuance of waste discharge permits authorized by the same Act. These activities are conducted cooperatively with the States and maximum State assumption of these responsibilities is encouraged.

	<u>1973</u>	<u>1974</u>	<u>Increase or Decrease</u>
<u>Budget Authority</u>			
Water Quality Enforcement	\$12,068,700	\$13,449,000	+\$1,380,300
Water Quality Permit Program.....	<u>8,798,400</u>	<u>11,004,000</u>	<u>+2,205,600</u>
Total.....	20,867,100	24,453,000	+3,585,900
<u>End-of-Year Employment</u>			
Water Quality Enforcement	587	585	-2
Water Quality Permit Program.....	<u>460</u>	<u>519</u>	<u>+59</u>
Total.....	1,047	1,104	+57
<u>Man-Years, Total.....</u>	897	1,048	+151

Summary of Increases and Decreases

	<u>1973</u>	<u>1974</u>	<u>Change</u>
<u>Water Quality Enforcement</u>	<u>\$12,068,700</u>	<u>\$13,449,000</u>	<u>+\$1,380,300</u>

To cover the full-year employment cost of new positions filled in 1973 and to provide for the increased salary costs of the 1973 pay raise.

<u>Water Quality Permit Program</u>	<u>8,798,400</u>	<u>11,004,000</u>	<u>+2,205,600</u>
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To provide for the full-year cost of positions transferred to EPA from the Corps of Engineers during 1973; to cover the costs of additional positions to adequately staff the program; and to provide for the increased salary costs of the 1973 pay raise for positions currently in the program.

Enforcement
Water Quality
Water Quality Enforcement

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Water quality enforcement	\$12,068,700	\$13,449,000	+\$1,380,300

Water quality standards have been required for all interstate navigable waters in the United States since the passage of the 1965 amendments to the Federal Water Pollution Control Act. The 1972 amendments to the Act have extended this regulatory authority by calling for the establishment of compatible water quality standards for the intrastate waters of each State and requiring that a waste discharge permit system based upon effluent limits for municipal, industrial, and other waste discharges be established using the best practicable control technology currently available as the basis for these permits.

The focus of the water enforcement program will largely shift from the enforcement of water quality standards to the issuance and enforcement of permits. The key enforcement mechanism under the new amendments to the Act will consist of administrative compliance orders and civil and criminal penalty actions for violations of permit conditions and limitations or compliance orders.

Purpose of Increase

To cover the full-year employment costs of new positions filled in 1973 and to provide the increased salary costs of the 1973 pay raise.

Significant 1973 Accomplishments

- Completed negotiations and finalized approximately 600 consent decrees.
- Completed case preparation and referred approximately 32 cases to the U.S. Attorney.

1974 Objectives

- Initiate approximately 65 referrals to the U.S. Attorney of violations of oil and hazardous substances discharge regulations.

- Survey an estimated 2,100 discharges in basins classified as water quality standards limited to support the development and issuance of permits in these basins.
- Investigate approximately 450 permittees to determine their compliance with permit conditions.
- Hold approximately 1,600 public hearings prerequisite to the issuance of permits and participate in similar hearings held by the States.
- Review and evaluate proposed State permit programs prerequisite to transferring the authority for issuing waste discharge permits to the individual States.

Enforcement

Water Quality Water Quality Permit Program

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Water quality permit program	\$8,798,400	\$11,004,000	+\$2,205,600

During 1973, the Refuse Act Permit Program was replaced by the National Pollutant Discharge Elimination System, which, under Section 402 of the Federal Water Pollution Control Act Amendments of 1972, requires all point sources of pollutant discharge to obtain a discharge permit. Basic changes in the program include the transfer of administrative responsibility for the program from the Corps of Engineers to EPA and the addition of three new categories of dischargers which are required to obtain permits: municipal, commercial, and agricultural point sources of discharge. The new legislation authorizes EPA to transfer the authority for issuing permits to those States which have a qualifying permit program. In those cases where the program is transferred, EPA retains the authority for review of proposed permit actions.

The water quality program primarily involves the review of permit applications, the development of the conditions to be made part of the permits, (treatment levels, monitoring requirements, compliance schedules, etc.) and the issuance of permits. EPA insures that State views are considered in the preparation of EPA issued permits and works closely with those States to which the program has been transferred, assisting them in training personnel and in reviewing and developing permit conditions. It is assumed that EPA will issue a majority of the permits during 1974, pending the States' development of programs and enactment of legislative authorities to permit them to qualify for transfer of the program to their administration.

Purpose of Increase

During 1973, 130 positions will be transferred from the Corps of Engineers to EPA to enable EPA to assume the administrative functions of the program heretofore assumed by the Corps under the Refuse Act. Also, during 1973, \$2,000,000 will be transferred to EPA to cover the partial year costs of these positions and other associated costs of the program. The increase is to provide for the full-year cost of these transferred positions, to cover the costs of an additional 59 positions needed to effectively administer this program, and to provide for the increased salary costs of the 1973 pay raise for those positions currently assigned to the program.

Significant 1973 Accomplishments

- Issued the new permit forms, guidelines, and regulations required to implement the new permit program.
- Issued interim authorizations to operate the permit program to 17 States and American Samoa.
- Issued effluent guidance for 21 industrial categories.
- Issued approximately 2,000 industrial discharge permits.

1974 Objectives

- In cooperation with the States, develop necessary conditions for approximately 30,000 permits and issue approximately 20,000 permits.
- Provide technical support and assistance to States to foster development of the maximum number of State permit programs.
- Transfer the program to as many States as qualify.

Pesticides

SECTION TAB

Enforcement

Pesticides

Purpose

The EPA pesticides enforcement program includes the inspection and registration of pesticides producing establishments; the surveillance of pesticide products on the market, imported pesticide products, experimental permits and pesticide uses; and the initiation of enforcement actions when violations are detected, including recalls, seizures, stop sales, injunctive actions, and criminal prosecutions as required to implement the Federal Environmental Pesticides Control Act of 1972.

	<u>1973</u>	<u>1974</u>	<u>Increase or Decrease</u>
<u>Budget Authority</u>			
Pesticides Enforcement	\$1,626,300	\$3,117,600	+\$1,491,300
Total.....	1,626,300	3,117,600	+1,491,300
<u>End-of-Year Employment</u>			
Pesticides Enforcement	93	164	+71
Total.....	93	164	+71
<u>Man-Years, Total.....</u>	85	133	+48

Summary of Increases and Decreases

	<u>1973</u>	<u>1974</u>	<u>Change</u>
<u>Pesticides Enforcement</u>	<u>\$1,626,300</u>	<u>\$3,117,600</u>	<u>+\$1,491,300</u>

To provide the additional staffing required to implement new authorities and responsibilities of the Federal Environmental Pesticides Control Act of 1972; to improve the surveillance of imported pesticide products; and to provide for the increased salary costs of the 1973 pay raise.

Enforcement
Pesticides
Pesticides Enforcement

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Pesticides enforcement.....	\$1,626,300	\$3,117,600	+\$1,491,300

The pesticide program for 1974 will encompass a continuation of ongoing activity to inspect pesticide products on the market to determine if they comply with the terms under which they were registered. In addition, the program must be expanded to undertake new activities and responsibilities directed by the recently enacted Federal Environmental Pesticides Control Act of 1972. These include the inspection and registration of manufacturers and formulators of pesticides, the surveillance of pesticide usage and the surveillance of compliance with experimental permits issued under the new Act. Moreover, the program must be expanded to provide improved inspection and surveillance of imported pesticide products, an effort which current staffing levels do not permit.

Purpose of Increase

To provide the additional staffing and resources to carry out new authorities and responsibilities under the Federal Environmental Pesticides Control Act of 1972, including the inspection and registration of manufacturers and formulators of pesticide products, the surveillance of pesticide usage and the surveillance of experimental permits. The increase is also to provide improved inspection and surveillance of imported pesticide products and to provide for the increased salary costs of the 1973 pay raise.

Significant 1973 Accomplishments

- Collected approximately 6,000 product samples, issued an estimated 1,500 violation notices, and initiated approximately 75 product seizures and 300 criminal prosecutions.

1974 Objectives

- Develop and promulgate regulations to register an estimated 3,500 pesticide manufacturing firms and collect production information on each product from these firms.
- Develop a computer system for storage and retrieval of manufacturer registration and production information to assure its ready availability.

- Develop an inspection program and inspect a cross-section of those firms registered.
- Initiate a program of pesticide use surveillance and investigate incidents of misuse.
- Spot check uses under experimental use permits.
- Improve surveillance of imported pesticide products.
- Issue approximately 1,500 notices of violation, issue an estimated 200 stop sale, use, and removal orders; and initiate approximately 500 civil and criminal actions.

Program Management and Support

SECTION TAB

Enforcement

Program Management and Support

Purpose

This activity encompasses the overall management of and support for the Enforcement programs described in the foregoing sections. It also provides for the staffing and funding of EPA's Office of General Counsel in headquarters and the Office of Regional Counsel in the ten regions.

	<u>1973</u>	<u>1974</u>	<u>Increase or Decrease</u>
<u>Budget Authority</u>			
Program Management.....	\$2,557,500	\$2,853,500	+\$296,000
Program Support.....	6,222,500	8,304,100	+2,081,600
Total.....	8,780,000	11,157,600	+2,377,600
<u>End-of-Year Employment</u>			
Program Management.....	110	117	+7
Program Support.....	...	...	...
Total.....	110	117	+7
<u>Man-Years, Total</u>	107	112	+5

Summary of Increases and Decreases

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Program Management	\$2,557,500	\$2,853,500	+\$296,000

To increase the staff of the Office of General Counsel to meet the increased workload arising from the new water, pesticides, and noise legislation, to cover the full-year employment costs of new positions filled in 1973, and to provide for the increased salary costs of the 1973 pay raise.

Program Support	6,222,500	8,304,100	+2,081,600
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To cover a prorated share of the Agency's increased funding requirements for common support services--refer to the section on Agency and Regional Management for a description of these requirements.

Enforcement

Program Management and Support Program Management

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Program management.....	\$2,557,500	\$2,853,500	+\$296,000

This activity provides for overall management of the Office of Enforcement and General Counsel, including the development of program policies and strategies, the overall planning of enforcement activities, the monitoring and review of the program, including that performed in the regions, and the direction of the program activities performed in headquarters. It also covers the staffing of the Offices of General Counsel and Regional Counsel which serve the needs of all components of the Agency. To carry out these functions, this activity provides for the following staffing:

	<u>1973</u>	<u>1974</u>
Office of Enforcement and General Counsel	26	28
Office of Water Enforcement.....	5	5
Office of General Enforcement.....	3	3
Office of General Counsel.....	46	51
Office of Regional Counsel.....	30	30

Purpose of Increase

To provide for the increased workload placed on the Office of General Counsel by the recently enacted water, pesticide, and noise legislation, to cover the full-year employment costs of new positions filled in 1973 and to provide for the increased salary costs of the 1973 pay raise.

Enforcement

Program Management and Support Program Support

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Program support.....	\$6,222,500	\$8,304,100	+\$2,081,600

This element constitutes the prorated share of EPA's total funding requirements for common support services. These funding requirements cover certain agencywide and regional lease, communication, and other common service costs which are managed through a single headquarters account and ten regional accounts. These requirements are fully described in the section covering Agency and Regional Management. The prorated share charged under this element represents that portion required to support the programs funded and conducted under the Enforcement appropriation.

Purpose of Increase

This increase, together with those under similar elements under the Research and Development and the Abatement and Control appropriation accounts, is described under the section covering Agency and Regional Management.

Agency and Regional Management

Agency and Regional Management

Purpose

Activities supported under this appropriation provide for top-level management of EPA through the Administrator's immediate office and the immediate offices of the Regional Administrators, and for administrative support to the program activities through the Office of Planning and Management and its regional counterparts.

<u>Budget Authority</u>	<u>1972^{a/}</u>	<u>1973</u>	<u>1974</u>
Agency Management and Support.....	\$29,222,318	\$36,527,380	40,282,300
Regional Management and Support.....	<u>9,879,700</u>	<u>9,656,200</u>	<u>10,517,500</u>
Total.....	39,102,018	46,183,580	50,799,800

<u>Manpower Resources</u>	<u>1973</u>	<u>1974</u>
End-of-Year Employment.	1,794	1,834
Man-Years.....	1,696	1,764

a/ Provided for comparative purposes and represents resources approved under the appropriation "Operations, Research, and Facilities" for activities now carried under this appropriation.

Agency and Regional Management

Purpose

This activity provides for the overall management and direction of EPA through the Office of the Administrator and its staff offices; for the overall management of EPA's ten regional offices through the offices of the Regional Administrators and their staff offices; and for the agencywide administrative functions performed by the Office of Planning and Management. This activity also includes a prorated share of the agencywide and regional common services needed to support the above mentioned offices.

<u>Budget Authority</u>	<u>1973</u>	<u>1974</u>	<u>Increase or Decrease</u>
Agency Management and Support.....	\$36,527,380	\$40,282,300	+\$3,754,920
Regional Management and Support.....	<u>9,656,200</u>	<u>10,517,500</u>	<u>+861,300</u>
Total.....	46,183,580	50,799,800	+4,616,220
 <u>End-of-Year Employment</u>			
Agency Management and Support.....	1,321	1,331	+10
Regional Management and Support.....	<u>473</u>	<u>503</u>	<u>+30</u>
Total.....	1,794	1,834	+40
 <u>Man-Years, Total</u>	1,696	1,764	+68

Summary of Increases and Decreases

	<u>1973</u>	<u>1974</u>	<u>Change</u>
<u>Agency Management and Support</u>	<u>\$36,527,380</u>	<u>\$40,282,300</u>	<u>+\$3,754,920</u>
Agency management.....	30,559,100	31,572,100	+1,013,000
To provide for the increase in administrative support--contracts management, audit, and special studies--required to implement the new legislation enacted in 1973 and to provide for the increased salary costs of the 1973 pay raise.			
Agency support.....	5,968,280	8,710,200	+2,741,920
To provide for increased common services required to support the expanded programs and additional staffing proposed for implementation of the new legislation and to meet the additional needs of program and staffing increases authorized in 1973.			
<u>Regional Management and Support</u>	<u>9,656,200</u>	<u>10,517,500</u>	<u>+861,300</u>
Regional management.....	9,002,400	9,908,500	+906,100
To provide for the increased staffing needed to handle the expanded administrative workload of the construction grants program and to provide for the increased salary costs of the 1973 pay raise.			
Regional support.....	653,800	609,000	-44,800
A decrease resulting from nonrecurring costs for renovation and relocation of certain regional offices.			

Agency Management and Support

Agency and Regional Management

Agency Management and Support

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Agency management.....	\$30,559,100	\$31,572,100	+\$1,013,000

Agency management provides for the staffing and funding of the Office of the Administrator and its staff offices and the Office of Planning and Management.

The Office of the Administrator and its staff offices provide the top level policy direction and management of the Agency. The composition and staffing of these offices are:

	<u>1973</u>	<u>1974</u>
Office of Administrator and Deputy Administrator.....	53	53
Office of Legislation.....	42	42
Office of Public Affairs.....	87	87
Office of International Affairs.....	23	23
Office of Civil Rights and Urban Affairs...	32	32
Office of Federal Activities.....	25	25

The Office of Planning and Management performs the agencywide administrative functions required to support EPA's program activities. It also provides the administrative services required to support the activities carried out at headquarters in Washington, D.C., and at the two major field centers at Durham, North Carolina and Cincinnati, Ohio.

The composition and staffing of the Office of Planning and Management are:

	<u>1973</u>	<u>1974</u>
Office of Planning and Management.....	8	8
Office of Administration.....	754	757
Office of Resources Management.....	180	180
Office of Planning and Evaluation.....	63	65
Office of Audit	49	54
Office of Education and Manpower Development	5	5

The largest of these offices, the Office of Administration, covers the following administrative functions: agencywide contracts and procurement management; agencywide grants policy direction; management of EPA's automated data processing systems; agencywide personnel policy direction and personnel management services for offices located in Washington, D.C., Durham, North Carolina, and Cincinnati, Ohio; agencywide management of EPA's office and laboratory facilities; agencywide security and inspection; and general administrative services to programs located in the three aforementioned cities. The Office of Resources Management covers coordination and management of EPA's program planning and budget activities and agencywide management of EPA accounting and fiscal management activities.

The funding requirements of Agency Management are predominantly for salary, benefit, and travel costs for the personnel staffing the above-delineated offices. The major exception is the contract funds allocated to the Office of Planning and Evaluation for the conduct of economic and other information-gathering and evaluative studies to support the activities of that office.

Purpose of Increase

To provide for the increase in administrative support required to implement the Federal Water Pollution Control Act Amendments of 1972, as well as other new legislation enacted during the year, and to provide for the increased salary costs of the 1973 pay raise. The increased funding of construction grants and the increase in grant and contract activity authorized by the new legislation will impose an increased workload on the Office of Audit; therefore, an increase of staffing of this office is proposed. The increase in contracts authorized by the new legislation will also increase the workload of the Contracts Management Division of the Office of Administration and an increase in staffing of this Division is therefore proposed. Finally, the new water legislation calls for a variety of economic and other studies as well as the development of a host of new regulations and standards. Increased funding to meet these requirements is thereby proposed.

Agency support.....	\$5,968,280	\$8,710,200	+\$2,741,920
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This element constitutes the prorated share of agencywide common service support costs which is charged to the Agency and Regional Management appropriation account.

This element together with portions of the program support elements carried under the Research and Development, Abatement and Control, and Enforcement appropriation accounts, provide the source of funding for a single agency working account under which agencywide common services are funded. These agencywide common services include:

- the rental and lease of all office and laboratory space occupied by EPA exclusive of that owned by EPA or paid for by the General Services Administration out of its appropriations.
- EPA's automatic data processing systems.
- the telephone service used by EPA under the Federal Telecommunication System.
- telephone service, utilities, custodial and security services, printing and library services, and office supplies used by EPA offices located in Washington, D.C., Durham, North Carolina, and Cincinnati, Ohio.
- EPA's total costs for penalty mail.
- repairs and alterations to EPA-owned laboratory facilities.

This element does not include any salary, benefit, or travel costs.

Purpose of Increase

To provide for increased common services required to support the expanded programs and staffing proposed in this 1974 budget to implement new legislation and to support program and staffing increases authorized in 1973. The principal items of increase are:

- increased rental and lease costs for office and laboratory space to house the 345 new positions proposed for 1974 and the 130 positions to be transferred from the Corps of Engineers in 1973;
- increased Federal Telecommunication System, local telephone, utility, custodial and security, printing and library services and office supply and equipment maintenance costs required to support the new personnel;
- increased automated data processing equipment and service costs to support new and expanded programs required by the new legislation as well as the maturing needs of ongoing programs;

- additional funds for the repair and improvement of EPA-owned laboratory buildings and equipment to correct safety hazards and protect the Federal investment in these facilities;
- additional funds for equipping regional laboratories to enable them to support implementation of the new legislation; and
- increased costs for penalty mail.

Agency and

Regional M

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Regional management.....

Regional management provide immediate Office of the Regional Intergovernmental Relations, Public Division of Management in each

The Offices of the Regional provide the overall direction at The Divisions of Management per program planning, personnel management and housekeeping activities--re

The funding requirements for salary, benefit, travel, and other the above offices.

Purpose of Increase

To provide for increased salary the construction grants program costs of the 1973 pay raise. The grants program under the Federal impose an increased workload on administrative functions carried include the processing of obligations and the review and monitoring of compliance with civil rights re

Regional support.....

This element constitutes the service support costs which are Management appropriation account

This element together with carried under the Research and Enforcement appropriation account regional working accounts under These common services include the housekeeping requirements, and regional programs. They exclude

Regic Managem Supp

Construction Grants

Purpose

This program provides for making grants to municipal, intermunicipal, State, and interstate agencies to assist in financing the planning, design, and construction of municipal wastewater treatment facilities. Amounts approved from authorization for contract authority for 1973 and 1974 are allotted to each State on the basis of a formula set forth in the Federal Water Pollution Control Act Amendments of 1972. Within these allotments, grants are awarded on a priority basis for individual projects. Each project is eligible for 75 percent in Federal assistance.

	<u>1972</u>	<u>1973</u>	<u>1974</u>
Budget Authority.....	\$2,000,000,000	\$1,900,000,000	...
Contract Authority.....	...	5,000,000,000 ^{a/}	^{b/}
Liquidate Contract Authority	...	...	\$200,000,000

a/ Includes \$2 billion out of 1973 authority and \$3 billion out of 1974 authority.

b/ Determination by the President not made, as yet, of the amount of the \$7 billion authorized for 1975 that will be approved for allotment by January 1, 1974, and available for obligation in 1974.

Construction Grants

Justification

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Liquidate contract authority.	... \$200,000,000	+\$200,000,000	

Federal grant assistance for the construction of municipal wastewater treatment works has been authorized since 1956. Since that time, through January 31, 1973, \$5.2 billion of assistance has been provided for 13,760 projects having a total cost of \$15.7 billion. Over this period, both the percentages of Federal grants and the annual amount of monies authorized and appropriated has been increased in several steps. The current percentage of Federal assistance is 75 percent of total eligible costs.

The Federal Water Pollution Control Act Amendments of 1972 substantially alter the methods of funding the construction grants program and the methods of providing assistance to individual projects. Rather than awarding a grant to an applicant for the Federal share of a project, EPA is now authorized to enter into a contractual arrangement with the applicant wherein EPA creates a contractual obligation for payment of the eligible proportional costs of the separate elements of each project. Under this authority, EPA will incur contractual obligations for the Federal share of the costs of (1) preliminary plans and studies and other eligible preliminary work, (2) design plans and specifications, and (3) the construction of the waste treatment facilities. Payments against these contractual obligations will be made to the applicant as all or parts of each of these elements are completed. Under this contractual method of providing financial assistance, EPA is obliged to estimate each year the amounts of payments that are required against contractual obligations and to seek appropriations to cover these payments,

To implement these new methods of funding and project financing, EPA allotted, in December 1972, \$5 billion of contract authority to the States and other jurisdictions. As prescribed by regulations promulgated pursuant to provisions of the Federal Water Pollution Control Act Amendments of 1972, these allotments were based on a formula which in turn, was based on needs identified in the 1971 municipal needs survey conducted by EPA.

Based on an analysis at the time the budget was being formulated it was estimated that the contractual obligations incurred under the \$5 billion allotted would probably not involve any payments during 1973 but would require an estimated \$200 million for 1974. Therefore, based on this analysis EPA is requesting an appropriation of \$200 million in 1974.

In 1973, the Congress appropriated \$1.9 billion for the purpose of covering the reimbursable grant requirements created over the past several years under provisions of the Federal Water Pollution Control Act which are now expired. These funds will be allocated to the States and other jurisdictions during 1973 and used for the purposes intended.

Scientific
(Special Fore

: Activities Overseas, d
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Scientific Activit Overseas

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	<u>1973</u>	<u>1974</u>	<u>Change</u>
Air program.....	\$1,430,000	\$770,000	-\$660,000

Activities funded under the air program will include major interdisciplinary studies on the control of multiple industrial effluents in Poland. This joint program through both research and development efforts and the testing of advanced technology on industrial stacks, will provide an integrated base controlling air pollution in the heavily industrialized regions. EPA will also collaborate with the Polish Government in designing and testing an elaborate air pollution monitoring network designed to provide quick response control to avoid unacceptable pollution levels. Other air pollution control programs will focus on health effects of air pollutants in mining regions of Pakistan, studies of municipal air pollution in Yugoslavia, and studies of the airborne movement of pesticides in Egypt.

Water program.....	955,000	1,309,000	+354,000
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Environmental research institutions in India are capable of contributing new knowledge to the protection and management of water supplies and of conducting original research on new technologies for municipal and industrial waste watertreatment. In Poland, EPA will extend the water program activities previously funded, including interdisciplinary water pollution of the Baltic. Also, studies of mine drainage problems in Pakistan, studies of the life cycle of waste stabilization ponds in Tunisia, and the effects of agricultural runoff on water quality in Yugoslavia will be supported.

Solid waste program.....	170,000	165,000	- 5,000
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Practically all the excess currency countries share EPA's concern for the development of ways to improve and modify existing practices in solid waste management. In Poland, investigations will focus on the disposal and use of industrial waste such as fly ash and sludge resulting from industrial processes. Indian investigators will study the effects of composts on soils and plants and will make assessments of animals raised in areas containing high levels of manganese.

Pesticides program.....	350,000	350,000	...
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Poland is rapidly developing an international reputation in the field of biological alternatives to pesticides. This excess currency country is also in an excellent location to provide new information from the Western scientific community and Eastern bloc countries for

collaborative research on integrated pest management. Combined U.S.-Polish studies will include the implications of pesticides to human health. Pakistan research teams will provide the means of improving agricultural production through integrated pest management while protecting the human environment. Studies dealing with the accumulation of DDT in fat in five closely defined control regions of Yugoslavia will be funded in 1974. The activities in these countries involve regions of pesticide-free areas and areas of high intensity use of chemical pesticides on selected insects and crops. Accordingly, this integrated program will provide an opportunity to test and evaluate biological alternatives along with chemical pesticides on selected insects and crops.

	<u>1973</u>	<u>1974</u>	<u>Change</u>
Radiation program.....	335,000	400,000	+65,000

The management of radioactive waste products from nuclear reactors is a critical environmental problem. Expert teams in Yugoslavia and Poland will be ready in 1974 to develop methods to concentrate waste radioactive materials. This will allow safer and more economical disposal and storage. Research on the environmental impact of heavy metals including mercury, lead, and cadmium will be initiated in Poland and Yugoslavia. Major studies will be concerned with the marine uptake to these metals in the Adriatic and Baltic. The studies will be closely coordinated with each other and similar EPA efforts sponsored in the United States.

Noise program.....	250,000	250,000	...
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In 1974, EPA will implement recommendations of the first annual Congress on Health Effects of Noise to be held in Dubrovnik, Yugoslavia, in May 1973. In the past five years, Poland has developed an aggressive program to reduce the health effects of noise from industrial and construction operations. Summaries of this work and details of new research in both the Eastern bloc and Western countries will be consolidated by the Polish team. New studies will be initiated based upon the results of this preliminary work and new information gained at the 1973 International Congress. Emphasis will be placed on applied research aimed at eliminating sources of noise through improved land use activities, construction techniques, and enforcement procedures.

Interdisciplinary program.....	400,000	650,000	+ 250,000
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Increasingly, the environmental problems that deserve attention do not fall into specifically defined media categories. Important studies such as alternative power sources which involve trade-offs among air pollution, water pollution, and radiation from nuclear reactors must be considered. Interdisciplinary studies involve talents from many scientific areas and competence to measure secondary implications of selected policies

collaborative research on integrated pest management. Combined U.S.-Polish studies will include the implications of pesticides to human health. Pakistan research teams will provide the means of improving agricultural production through integrated pest management while protecting the human environment. Studies dealing with the accumulation of DDT in fat in five closely defined control regions of Yugoslavia will be funded in 1974. The activities in these countries involve regions of pesticide-free areas and areas of high intensity use of chemical pesticides on selected insects and crops. Accordingly, this integrated program will provide an opportunity to test and evaluate biological alternatives along with chemical pesticides on selected insects and crops.

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Noise program.....	250,000	250,000	...
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Interdisciplinary program.....	400,000	650,000	+ 250,000
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Increasingly, the environmental problems that deserve attention do not fall into specifically defined media categories. Important studies such as alternative power sources which involve trade-offs among air pollution, water pollution, and radiation from nuclear reactors must be considered. Interdisciplinary studies involve talents from many scientific areas and competence to measure secondary implications of selected policies

General Provisions

ENVIRONMENTAL PROTECTION AGENCY

GENERAL PROVISIONS

Appropriations in this Title for expenses of the Environmental Protection Agency shall be available for hire of passenger motor vehicles; hire, maintenance, and operation of aircraft; uniforms, or allowances therefor, as authorized by 5 U.S.C. 5901-5902; repair and improvement of Federal facilities; services as authorized by 5 U.S.C. 3109, but at rates for individuals not to exceed the per diem rate equivalent to the rate for GS-18; purchase of reprints; library memberships in societies or associations which issue publications to members only or at a price to members lower than to subscribers who are not members; and independent grant and contract review advisory committees.

Not to exceed 7 per centum of any appropriation made available to the Environmental Protection Agency by this Act (except appropriations for "Construction Grants" and "Scientific Activities Overseas") may be transferred to any other such appropriation.

The budget for 1974 includes, for the first time, language under the Environmental Protection Agency Title of the Bill providing special authorities covering certain items of expenditure which must be specifically permitted by reference in an Appropriation Act. These "General Provisions" were embodied in the language of the appropriation, "Operations, Research, and Facilities" when that was the single appropriation providing for all EPA programs prior to 1973.

The single appropriation activities and provisions were distributed among four appropriations in the course of congressional consideration of the 1973 estimates. Since a general provisions section was not developed concurrently, it was necessary that each item of appropriation language repeat the special authorities for which each of the four appropriations could be used. This caused the appropriations to contain superfluous references that could be accommodated by developing the general provisions section applicable to all appropriations items of the Agency.

These general provisions are merely extensions of authority already available to the Agency for 1973.

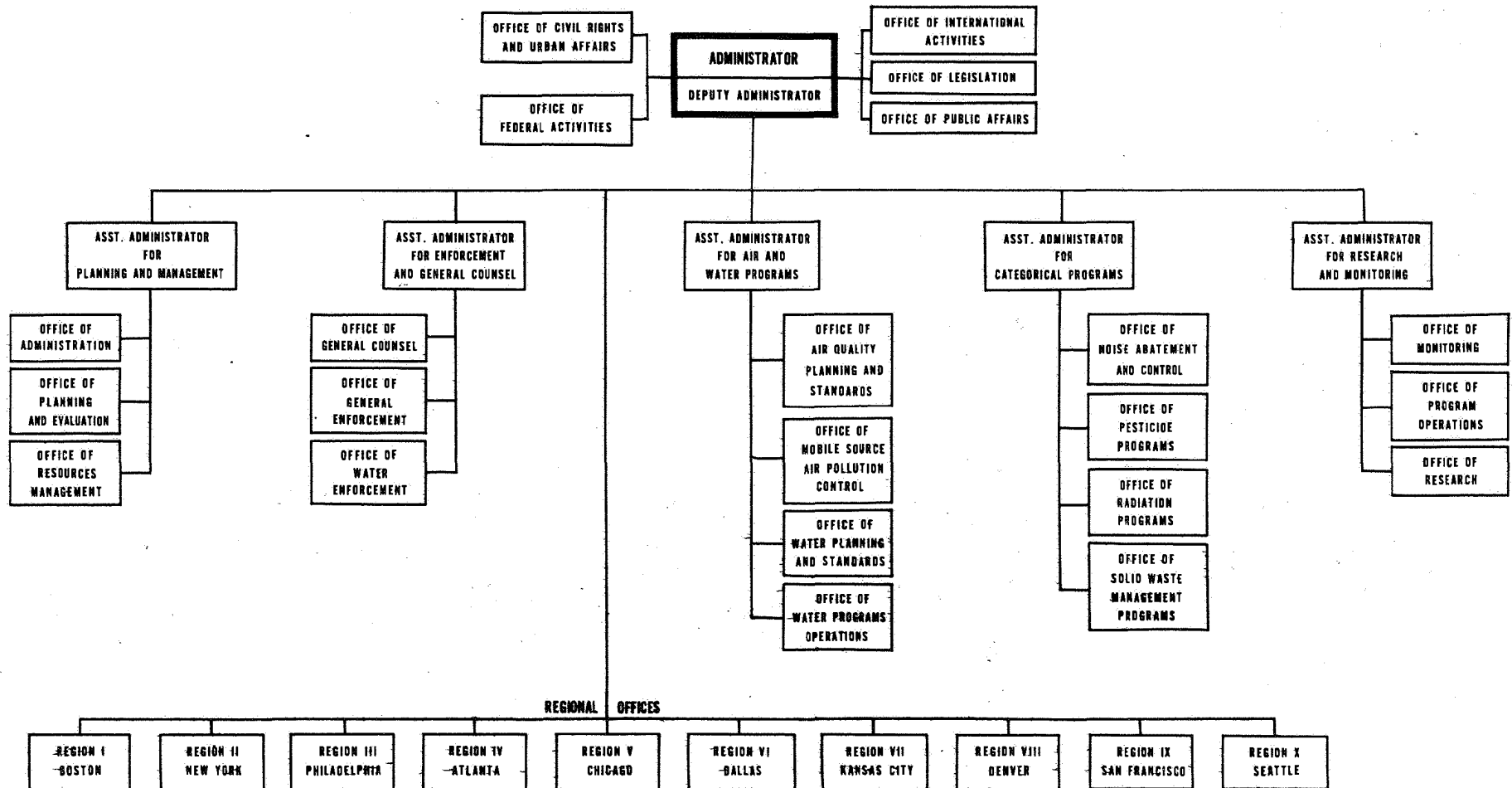
Special Analyses

Special Analyses

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U.S. ENVIRONMENTAL PROTECTION AGENCY



EPA Regions
Headquarters Locations and States

Region I Headquarters, Boston, Massachusetts
Connecticut, Maine, Massachusetts
New Hampshire, Rhode Island, Vermont

Region VIII Headquarters, Denver, Colorado
Colorado, Montana, North Dakota,
South Dakota, Utah, Wyoming

Region II Headquarters, New York, New York
New Jersey, New York, Puerto Rico,
Virgin Islands

Region IX Headquarters, San Francisco,
California
Arizona, California, Hawaii,
Nevada, American Samoa, Guam,
Trust Territories of Pacific
Islands, Wake Island

Region III Headquarters, Philadelphia, Pa.
Delaware, Maryland, Pennsylvania,
Virginia, West Virginia, District of
Columbia

Region X Headquarters, Seattle, Washington
Alaska, Idaho, Oregon, Washington

Region IV Headquarters, Atlanta, Georgia
Alabama, Florida, Georgia, Kentucky
Mississippi, North Carolina, South
Carolina, Tennessee

Region V Headquarters, Chicago, Illinois
Illinois, Indiana, Michigan,
Minnesota, Ohio, Wisconsin

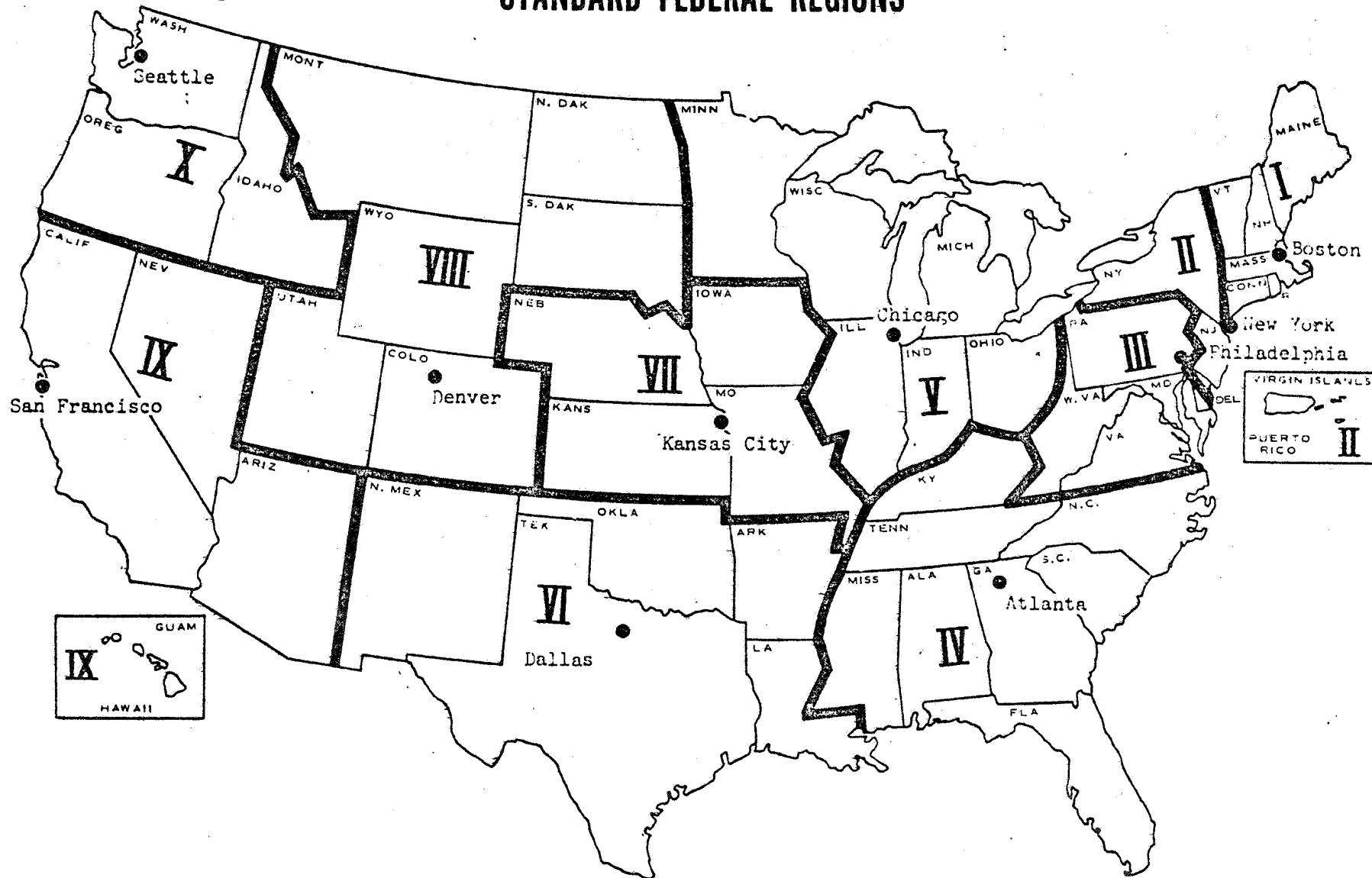
Region VI Headquarters, Dallas, Texas
Arkansas, Louisiana, New Mexico
Texas, Oklahoma

Region VII Headquarters, Kansas City, Missouri
Iowa, Kansas, Missouri, Nebraska



ENVIRONMENTAL PROTECTION AGENCY REGIONAL OFFICES

STANDARD FEDERAL REGIONS



Summary of Resources

	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Increase or Decrease</u>
<u>Research and Development*</u>				
Budget authority.....	...	\$173,144,600	\$148,700,200	-\$24,444,400
Obligations.....	...	152,845,000	148,303,000	-4,542,000
Outlays.....	...	60,000,000	125,000,000	+65,000,000
End-of-year employment.....	...	1,907	1,863	-44
Man-years.....	...	1,798	1,808	+10
<u>Abatement and Control*</u>				
Budget authority.....	...	212,034,600	243,100,400	+31,065,800
Contract authority.....	...	50,000,000 ^{a/}	96,000,000 ^{b/}	+46,000,000
Obligations.....	...	188,334,000	244,100,000	+55,766,000
Contract authority.....	21,000,000	+21,000,000
Outlays.....	...	102,000,000	189,000,000	+87,000,000
End-of-year employment.....	...	3,454	3,605	+151
Man-years.....	...	3,347	3,442	+95
<u>Enforcement*</u>				
Budget authority.....	...	35,574,400	47,399,600	+11,825,200
Obligations.....	...	35,574,400	47,399,600	+11,825,200
Outlays.....	...	27,000,000	43,000,000	+16,000,000
End-of-year employment.....	...	1,477	1,682	+205
Man-years.....	...	1,251	1,556	+305
<u>Agency and Regional Management*</u>				
Budget authority.....	...	46,183,580	50,799,800	+4,616,220
Obligations.....	...	46,183,580	50,799,800	+4,616,220
Outlays.....	...	35,000,000	48,000,000	+13,000,000
End-of-year employment.....	...	1,794	1,834	+40
Man-years.....	...	1,696	1,764	+68

	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Increase or Decrease</u>
<u>Construction Grants</u>				
Budget authority.....	\$2,000,000,000	1,900,000,000	...	-1,900,000,000
Contract authority.....	...	5,000,000,000 d/	... c/	-5,000,000,000
Obligations.....	787,634,566	3,323,892,000	...	-3,323,892,000
Contract authority.....	...	500,000,000	3,400,000,000	+2,900,000,000
Outlays.....	413,407,888	727,000,000	1,600,000,000	+873,000,000
Contract authority.....	...	...	200,000,000	+200,000,000
End-of-year employment.....	...	...	...	...
Man-years.....	...	...	...	...
<u>Scientific Activities Overseas</u>				
Budget authority.....	7,000,000	4,000,000	4,000,000	...
Obligations.....	4,756,907	7,038,053	4,000,000	-3,038,053
Outlays.....	1,451,406	5,000,000	6,000,000	+1,000,000
End-of-year employment.....	...	...	...	...
Man-years.....	...	...	...	...
<u>Operations, Research, and Facilities</u>				
Budget authority.....	440,520,318	...	...	...
Obligations.....	368,222,209	106,213,960	4,000,000	-102,213,960
Outlays.....	347,990,647	191,400,000	115,975,000	-75,425,000
End-of-year employment.....	7,658	...	...	...
Man-years.....	7,194	...	...	...
<u>Revolving Fund</u>				
Budget authority.....	...	...	...	...
Obligations.....	308,837	1,539,000	1,265,000	-274,000
Outlays.....	-49,038	...	...	...
End-of-year employment.....	12	51	51	...
Man-years.....	11	50	50	...

	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Increase or Decrease</u>
<u>Trust Funds</u>				
Budget authority.....	45,266	25,000	25,000	...
Obligations.....	20,020	90,000	25,000	-65,000
Outlays.....	20,020	90,000	25,000	-65,000
End-of-year employment.....	...	...	...	...
Man-years.....	...	...	...	...
<u>Advances and Reimbursements^{e/}</u>				
Budget authority.....	...	...	...	...
Obligations.....	3,042,230	5,340,000	5,340,000	...
Outlays.....	...	...	...	...
End-of-year employment.....	157	164	164	...
Man-years.....	150	157	159	+2
<u>Allocation Account</u>				
Budget authority.....	...	...	...	...
Obligations.....	...	...	...	...
Outlays.....	...	...	...	...
End-of-year employment.....	8	11	4	-7
Man-years.....	8	8	4	-4
<u>Total, Environmental Protection Agency</u>				
Budget authority.....	2,447,565,584	2,370,962,180	494,025,000	-1,876,937,180
Contract authority.....	...	5,050,000,000	96,000,000	-4,954,000,000
Obligations.....	1,163,984,769	3,867,049,993	505,232,400	-3,361,817,593
Contract authority.....	...	500,000,000	3,421,000,000	+2,921,000,000
Outlays.....	762,820,923	1,147,490,000	2,127,000,000	+979,510,000
Contract authority.....	...	...	200,000,000	+200,000,000
End-of-year employment.....	7,835	8,858	9,203	+345
Man-years.....	7,363	8,307	8,783	+476

- a/ Section 208 Areawide Waste Treatment Management. \$50 million contract authority authorized for 1973 is not expected to be used.
- b/ Section 208 Areawide Waste Treatment Management. \$100 million contract authority authorized for 1974 of which \$4 million budget authority is included in the appropriation request of \$243,100,400 for 1974, leaving an adjusted 1974 contract authority of \$96 million, of which \$21 million is expect to be obligated.
- c/ Determination by the President not made, as yet, of the amount of the \$7 billion authorized for 1975 that will be approved for allotment by January 1, 1974, and available for obligation in 1974.
- d/ Includes \$2 billion out of 1973 authority and \$3 billion out of 1974 authority.
- e/ Included in the President's Budget under Research and Development, Abatement and Control, and Agency and Regional Management.
- * Excludes resources approved under the appropriation "Operations, Research, and Facilities" for activities now carried under this appropriation.

NOTE: Man-years based on permanent employment.

Summary of End-of-Year Employment and Man-Years
by Appropriation and Program

	1973		1974		Increase or Decrease	
	EOY	Man-Years	EOY	Man-Years	EOY	Man-Years
<u>Research and Development</u>						
Air.....	444	428	444	432	...	+4
Water Quality.....	653	589	653	633	...	+44
Water Supply.....	83	80	83	81	...	+1
Solid Wastes.....	70	66	23	22	-47	-44
Pesticides.....	114	109	114	111	...	+2
Radiation.....	88	85	88	85	...	...
Noise.....	...	...	3	3	+3	+3
Interdisciplinary.....	192	186	192	186	...	...
Program Management and Support.....	263	255	263	255	...	...
Subtotal.....	1,907	1,798	1,863	1,808	-44	+10
Man-years, other than permanent positions	...	233	...	233	...	...
Total, Research and Development...	1,907	2,031	1,863	2,041	-44	+10
<u>Abatement and Control</u>						
Air.....	702	680	633	614	-69	-66
Water Quality.....	1,515	1,469	1,714	1,663	+199	+194
Water Supply.....	91	88	91	88	...	...
Solid Wastes.....	216	209	100	97	-116	-112
Pesticides.....	461	447	591	525	+130	+78
Radiation.....	191	185	191	185	...	...
Noise.....	12	11	31	24	+19	+13
Program Management and Support.....	266	258	254	246	-12	-12
Subtotal.....	3,454	3,347	3,605	3,442	+151	+95
Man-years, other than permanent positions	...	548	...	548	...	...
Total, Abatement and Control.....	3,454	3,895	3,605	3,990	+151	+95

	1973		1974		Increase or Decrease	
	EOY	Man-Years	EOY	Man-Years	EOY	Man-Years
<u>Enforcement</u>						
Air	227	162	297	263	+70	+101
Water Quality	1,047	897	1,104	1,048	+57	+151
Pesticides	93	85	164	133	+71	+48
Program Management and Support	110	107	117	112	+7	+5
Subtotal	1,477	1,251	1,682	1,556	+205	+305
Man-years, other than permanent positions	...	96	...	96	...	...
Total, Enforcement	1,477	1,347	1,682	1,652	+205	+305
<u>Agency and Regional Management</u>						
Agency Management	1,321	1,261	1,331	1,287	+10	+26
Regional Management	473	435	503	477	+30	+42
Subtotal	1,794	1,696	1,834	1,764	+40	+68
Man-years, other than permanent positions	...	237	...	237	...	...
Total, Agency and Regional Management ..	1,794	1,933	1,834	2,001	+40	+68
<u>Revolving Fund</u>						
Abatement and Control	51	50	51	50	...	...
Pesticides	51	50	51	50	...	...
Man-years, other than permanent positions	...	...	...	...	...	...
Total, Revolving Fund	51	50	51	50	...	...

	1973		1974		Increase or Decrease	
	EOY	Man-Years	EOY	Man-Years	EOY	Man-Years
Advances and Reimbursements <u>a/</u>	164	157	164	159	...	+2
Man-years, other than permanent positions.....	...	...	...	...	...	...
Total, Advances and Reimbursements.	164	157	164	159	...	+2
<u>Allocation Account</u>						
Abatement and Control	11	8	4	4	-7	-4
Water Quality.....	11	8	4	4	-7	-4
Man-years, other than permanent positions.....	...	5	...	5	...	...
Total, Allocation Account.....	11	13	4	9	-7	-4
<u>Grand Total</u>						
End-of-year employment and man-years	8,858	8,307	9,203	8,783	+345	+476
Man-years other than permanent positions.....	...	1,119	...	1,119	...	...
Total.....	8,858	9,426	9,203	9,902	+345	+476

a/ Included in the President's Budget under Research and Development, Abatement and Control, and Agency and Regional Management.

Environmental Protection Agency

Total Funds Available, 1973

	1973			
	Budget Authority	Unobligated Balance Brought Forward ^{a/}	Unobligated Balance Carried Forward	Total Available
* Research and Development	\$173,144,600	\$41,348,286	\$20,299,600	\$194,193,286
Air.....	67,381,900	11,189,620	8,637,000	69,934,520
Water Quality.....	48,113,900	10,467,395	5,947,600	52,633,695
Water Supply.....	2,266,300	...	...	2,266,300
Solid Wastes.....	17,071,000	15,196,513	4,229,000	28,038,513
Pesticides.....	5,251,800	72,783	518,000	4,806,583
Radiation.....	2,287,000	113,639	...	2,400,639
Noise.....	280,800	...	...	280,800
Interdisciplinary.....	13,768,200	2,387,061	968,000	15,187,261
Program Management and Support	16,723,700	1,921,275	...	18,644,975
* Abatement and Control	212,034,600	25,208,437	23,700,600	213,542,437
Air.....	80,807,400	7,693,212	13,364,400	75,136,212
Water Quality.....	70,490,800	6,185,917	7,502,300	69,174,417
Water Supply.....	2,014,500	...	...	2,014,500
Solid Wastes.....	12,942,300	4,165,720	1,717,000	15,391,020
Pesticides.....	14,112,200	840,000	867,200	14,085,000
Radiation.....	4,848,100	676,303	240,100	5,284,303
Noise.....	2,083,100	...	9,600	2,073,500
Program Management and Support	24,736,200	5,647,285	...	30,383,485
* Enforcement	35,574,400	2,123,060	...	37,697,460
Air.....	4,301,000	215,301	...	4,516,301
Water Quality.....	20,867,100	90,959	...	20,958,059
Pesticides.....	1,626,300	...	...	1,626,300
Program Management and Support	8,780,000	1,816,800	...	10,596,800

	1973			
	Budget Authority	Unobligated Balance Brought Forward ^{a/}	Unobligated Balance Carried Forward	Total Available
* Agency and Regional Management	46,183,580	2,565,468	...	48,749,048
Agency Management.....	36,527,380	2,267,556	...	38,794,936
Regional Management.....	9,656,200	297,912	...	9,954,112
* Scientific Activities Overseas	4,000,000	3,038,053	...	7,038,053
* Construction Grants	1,900,000,000	1,423,892,000	...	3,323,892,000
Facilities	...	38,968,709	4,000,000	34,968,709
Subtotal.....	2,370,937,180	1,537,144,013	48,000,200	3,860,080,993
Contract Authority				
Construction Grants.....	5,000,000,000 ^{b/}	...	4,500,000,000	500,000,000 ^{b/}
Areawide Waste Treatment Management Grants.....	50,000,000	...	...	50,000,000
Total.....	7,420,937,180	1,537,144,013	4,548,000,200	4,410,080,993

a/ Funds brought forward are from Operations, Research, and Facilities Appropriation but for purposes of this table have been "crosswalked" into 1973 appropriation structure.

b/ Includes \$3 billion for FY 1974 available January 1, 1973.

* Appropriation

Environmental Protection Agency

Total Funds Available, 1974

	1974			
	Budget Authority	Unobligated Balance Brought Forward	Unobligated Balance Carried Forward	Total Available
* Research and Development	\$148,700,200	\$20,299,600	\$20,696,800	\$148,303,000
Air.....	57,096,700	8,637,000	8,666,700	57,067,000
Water Quality.....	46,723,300	5,947,600	5,967,600	46,703,300
Water Supply.....	2,303,600	...	...	2,303,600
Solid Wastes.....	2,200,000	4,229,000	4,249,000	2,180,000
Pesticides.....	5,441,000	518,000	556,600	5,402,400
Radiation.....	2,470,500	...	20,000	2,450,500
Noise.....	550,000	...	...	550,000
Interdisciplinary.....	14,472,200	968,000	1,118,000	14,322,200
Program Management and Support	17,442,900	...	118,900	17,324,000
* Abatement and Control	243,100,400	23,700,600	22,701,000	244,100,000
Air.....	79,734,700	13,364,400	13,364,400	79,734,700
Water Quality.....	100,909,300	7,502,300	6,502,700	101,908,900
Water Supply.....	2,052,100	...	...	2,052,100
Solid Wastes.....	3,560,000	1,717,000	1,717,000	3,560,000
Pesticides.....	17,224,500	867,200	867,200	17,224,500
Radiation.....	4,650,700	240,100	240,100	4,650,700
Noise.....	3,487,500	9,600	9,600	3,487,500
Program Management and Support	31,481,600	...	...	31,481,600
* Enforcement	47,399,600	...	...	47,399,600
Air.....	8,671,400	...	...	8,671,400
Water Quality.....	24,453,000	...	...	24,453,000
Pesticides.....	3,117,600	...	...	3,117,600
Program Management and Support	11,157,600	...	...	11,157,600

	1974			
	<u>Budget Authority</u>	<u>Unobligated Balance Brought Forward</u>	<u>Unobligated Balance Carried Forward</u>	<u>Total Available</u>
* Agency and Regional Management	50,799,800	...	...	50,799,800
Agency Management.....	40,282,300	...	...	40,282,300
Regional Management.....	10,517,500	...	...	10,517,500
* Scientific Activities Overseas	4,000,000	...	...	4,000,000
Facilities	...	4,000,000	...	4,000,000
Subtotal.....	494,000,000	48,000,200	43,397,800	498,602,400
Contract Authority:				
Construction Grants.....	... ^{a/}	4,500,000,000	1,100,000,000	3,400,000,000
Areawide Waste Treatment Management Grants.....	96,000,000 ^{b/}	...	...	96,000,000
Total.....	590,000,000	4,548,000,200	1,143,397,800	3,994,602,400

* Appropriations

^{a/} Determination by the President not made, as yet, of the amount of the \$7 billion authorized for 1975 that will be approved for allotment by January 1, 1974, and available for obligation in 1974.

^{b/} \$100 million contract authority is authorized for 1974, of which \$4 million is included in the appropriation request of \$243,100,400 for 1974 leaving an adjusted 1974 contract authority of \$96 million.

