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Water Commission

7/14/75

Donner Council setting up
group to cooperate

NTR - want to be your thesis
report tells it like it is.

Have had Wenig's
chapters are being written.

get gpt - put text
to gts depts reputize.

Brain objectives - have the report
balanced

Commission Dept Report - mid-out
" " out of Big

Bill Sektman - very quiet. Adam
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 \end{array}$$

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857



Sen Amos [10mB] 7/14/72
100 agents

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modification of

the budget request

is supplemental.

If do it by agent -
w/ other Bills -

forbid just enter on front of



Logans -

Be sure to include the thought
statement on every page.



THE WHITE HOUSE

WASHINGTON

July 28, 1975

MEMORANDUM FOR THE VICE PRESIDENT

FROM: JIM CANNON

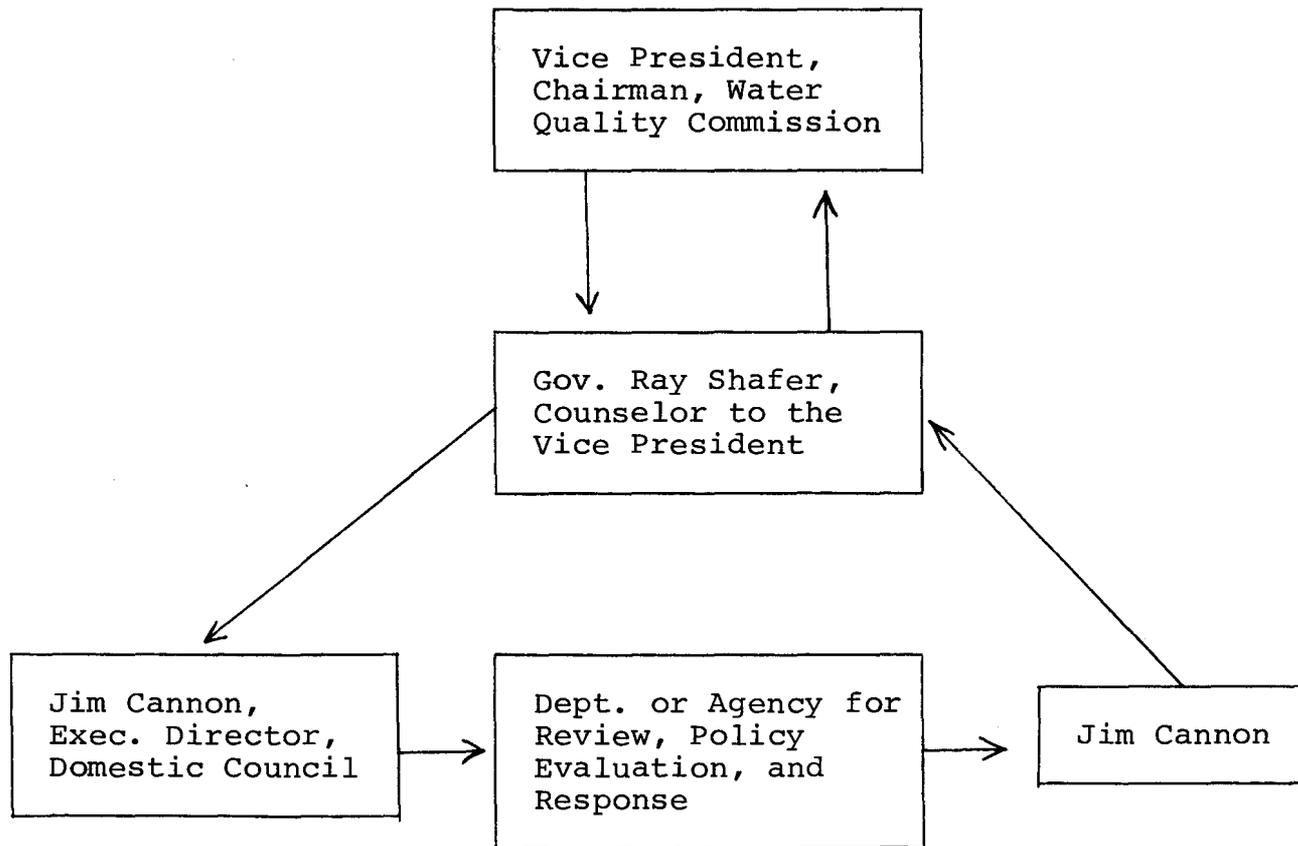
SUBJECT: Water Quality Commission

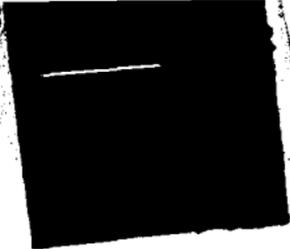
Dick Allison's memo of July 15, 1975 looks fine as a broad approach.

Also attached is a simple draft of flow charts from the Water Quality Commission to the Departments and Agencies and back.

Attachments

cc: Governor Ray Shafer





E M I N D E R

THE WHITE HOUSE

WASHINGTON

JMC:

You wanted to discuss the
Water Quality Commission
with Dick Allison.

p

P
OFFICE OF THE VICE PRESIDENT
WASHINGTON

*John -
ask back to
Mason
me -
Monday.
Jim*

July 15, 1975

MEMORANDUM FOR: JIM CANNON
GOVERNOR SHAFER
DONNA MITCHELL

FROM: DICK ALLISON (456-7056) *Dick*

SUBJECT: Water Quality Commission - Coordination
Procedures

1. Background.

-- At the end of yesterday's meeting, Jim Cannon asked me to consider methods for determining how the Water Quality Commission's "draft studies and program conclusions...would affect present domestic policies and programs for which the Administration has responsibility."

-- What follows are my first thoughts, which I will discuss with each of you by phone following today's Water Quality Commission meeting (which I do not plan to attend). Then I will coordinate with Rod Hills, and try to look at his "regulatory reform review scheme" (which he mentioned yesterday), so that a final plan can be ready for each of you by Friday afternoon.

-- If this procedure needs amendment, please let me know right away.

2. The Commission's Objectives.

-- At TAB A is an "Outline Draft Report" which is a Water Quality Commission staff working document. Part II, "Findings," asks 11 key questions. The Commission's answers to those questions will determine the conceptual shape, content, and impact of the report.

-- The key steps in finding these answers are, of course:

*Data collection;

*Data analysis, review, and evaluation;

*Recommendations based on the above.

-- The following are essential to making these steps successful:

*The presentation of the data in usable form - so that it can be intelligently reviewed, analyzed, and evaluated;

*Accomplishing ^{from} part of this review, analysis, and evaluation ~~from~~ the Administration's perspective, with emphasis on the impact of the data on Administration policies and programs.

3. Suggested Procedural Modifications.

-- At TAB B are suggested additional steps which could insure the accomplishment of the objectives stated in 2, above.

-- The administrative device for doing this could be the Domestic Council Review Group on U.S. Environmental Policy, approved by the President on April 22, 1975 (charter at TAB C).

4. Presidential Authorization. TAB D.

OUTLINEDRAFT REPORTINTRODUCTION AND FINDINGSI. INTRODUCTION

- A. Declaration of national purpose; the restoration and maintenance of the quality of the Nation's waters. (Sec. 101(a).)
- B. The goals, policies and objectives of P.L.92-500.
- C. The charge to the Commission:
 - Section 315
 - Commission's interpretation and expansion of mandate.

II. FINDINGS

Summarization of the findings of the Commission studies addressed to the following issues:

A. Do we have the technology?

Are technologies available to meet the goals and requirements of the Act? What overall evaluations can be made? What trends are discernible? What costs are associated with different technologies?

B. Can it be applied?

What are the prospects for having best practicable and best available technologies in place by 1983?

-- For municipal systems

-- For industry.

C. What are the impediments?

Likely significant constraints toward achievement of the BPT and BAT and their relative importance.

-- Money

-- Manpower



- Technological adaptation
- Resource availability
- Changing public needs and private requirements
- Bureaucratic inertia and repetition
- Intergovernmental cooperation or lack thereof.

D. What are the environmental impacts?

- Of achieving or not achieving by 1983
- Of not achieving in a longer time frame
- Of elimination of discharge
- Of failing to control non-point sources.

E. Who pays and how much?

What are the economic and social impacts of implementing P.L.92-500?

- In the public sector
- In the private sector.

F. Who benefits and how much?

What are the expected benefits to accrue from the implementation of the Act's requirements and to whom?

- Environmental restoration
- Recreational benefits (public and private)
- Social benefits
- Economic values (public and private)
- Public health and well-being.

G. How fast are we moving toward the goal of elimination of discharge of pollutants? When are we likely to get there? At what cost? At what advantage?

H. Uniform application of the Act's requirements: How well are they working nationally, regionally and locally?



I. Institutional structure.

Does the national water pollution control program, as set out in P.L.92-500, establish a pattern of intergovernmental relationships conducive to the most effective and productive delivery of:

- Financial resources
- Regulations and permits
- Compliance and enforcement
- Others.

J. Potential for planning.

What is the long-range potential for control of water pollution through the various planning provisions set forth in the Act?

K. How far off-course are we in 1975. from the directives and goals of the Act?

- What mid-course corrections or adjustments seem advisable?
- What are their implications for achievement of the goals and requirements of the Act?

Summarization of (1) the present water quality situation; (2) the structure and mechanics of the water pollution control program -- past and present; and (3) the existing state of control technology.

III. HOW IS THE WATER? ITS QUALITY AND QUANTITY

A summarization of what has been learned about the present quality of the Nation's waters.

- Brief description of study strategy of minimum geographical regions.
- Present quantity and quality, based on findings of Study Areas II and VI.a.



- Regional concentrations and variations.
- Trends.

IV. WHAT HAS AND IS BEING DONE ABOUT IT?

The evolution of a national water pollution control program in the context of its institutional development.

A. Pre-1972.

- WPA's contribution to construction of municipal treatment systems.
- Role of U.S. Public Health Service.
- Water quality standards.
- State initiatives and actions, and federal limitations (i.e., constitutional, jurisdictional, traditional, etc.).
- Corps of Army Engineers permit authority.

B. An articulation of national program; the Act as a mechanism for control.

- Technology; effluent limitations.
- Regulation; permits and enforcement.
- Finances; construction grants.
- Planning; non-degradation and non-point source control.

V. TECHNOLOGIES FOR ACHIEVING

An assessment of the general technological options available for alternative levels of effluent control, including BPT, BAT and EOD. Since the Act is fundamentally technologically based, the report should deal,



first, with just what technological options exist or are likely to exist, their per unit costs, relative effectiveness, resource requirements including manpower, and quantity and quality of residuals remaining.

A. Point source control.

- Industrial; in-depth and general
- Municipal (including urban runoff)
- Agricultural point sources.

B. Non-point source control.

C. Toxics and heavy metals.

D. Regional variations relevant to technological application.

E. Areas for research and development.

IMPACT ASSESSMENT

The impacts of the application of the requirements of P.L.92-500 evaluated under varied assumptions as to future economic circumstances in the U.S.

VI. THE ECONOMICS OF WATER QUALITY

A. Water as an economic resource.

- The transition in the use of water from a relatively free good to an increasingly costly resource for municipal and industrial development.
- Implications for trends in industrial and municipal use. (Conference Board and META Systems studies, supported by technology assessments.)

B. Dynamics of the economy in relation to water quality control.

1. Without the Act; continuation of present trends.

- National level; for the public and private sectors.
- Regional and local levels; for the public and private sectors.



2. With the Act; assumes implementation of requirements by 1977 and 1983.
 - National level; for the public and private sectors.
 - Regional and local levels; for the public and private sectors.
 3. With various assumptions of achievement and non-achievement; i.e., the assessment of the effect on the economy of variabilities in time, money and resources.
 - National level; for the public and private sectors.
 - Regional and local levels; for the public and private sectors.
- C. What are the requirements for capital investment and for operation and maintenance annual expenditures to meet the levels of effluent limitations required by the law for 1977, 1983 and other levels intermediate and beyond for:
- Municipalities, including combined sewers and storm water runoff.
 - Industry
 - Agriculture
 - Non-point sources
- By:
- Region
 - National
- D. Who pays: How and by whom will the facilities required by the Act be paid for and will the necessary manpower and materials be available?
- Industrial requirements; relative impact upon specific industries and how they will likely be internalized or passed on.
 - Municipal requirements; intergovernmental transfers, indebtedness, revenue availability and competing public needs.
 - Supply constraints.
 - Social impacts.
 - Possible effects on long-term growth and productivity, including relative impact on international competitive position.
 - Regional variations.



E. Who benefits?

- Industrial competition
- Resource recovery
- Commercial fisheries

- Recreational use (including sports fishing)
- Public and private value from water reuse
- Social impacts
- Public health and welfare
- Regional variations.



VII. ENVIRONMENTAL EFFECTS

A. Anticipated environmental impacts or changes from the application of:

- BPT
- BAT
- More stringent than BAT
- EOD.

(This will be a generalized assessment of incremental water quality changes attributable to the successive application of uniform effluent controls in a range of geographic regions throughout the country.)

B. Residual disposal alternatives; environmental impacts of:

- Marine
- Atmospheric
- Land
- Mass balance effects.

C. Anticipated changes nationally and regionally from achieving and not achieving in:

- Fish, shellfish and wildlife
- Recreational opportunities
- Health effects
- Aesthetic values
- Acceptability of waste disposal options, i.e., ocean discharge of primary effluent; deep well disposal; others.
- Areas for research.



VIII. INSTITUTIONAL ASSESSMENT

- A. Overall impact of the Act and its implementation on the institutional structure and capacity of:
 - Federal government
 - State government
 - Local government
 - Private institutions.

- B. Capabilities of and constraints on institutional cooperation and coordination:
 - Intergovernmental relationships (federal/state/local)
 - Intragovernmental relationships
 - Public-private relationships.

- C. Evaluation of the effectiveness of:
 - Permits
 - Compliance
 - Enforcement
 - Planning
 - Construction grants.

- D. Constraints on institutional performance.
 - Financing
 - Manpower
 - Time
 - Attitudes
 - Public participation.

- E. State and regional variations.



IX. ALTERNATIVE SCENARIOS

A synthesizing chapter in which selected levels of treatment will be assessed for economy and social impact and implications of a selected range of variable conditions in:

- Funding
- Timing
- Resource constraints
- Capital markets and governmental fiscal policy
- Competing public and private needs
- Others.

- 0 -

APPENDIX

Explanation of study methodology.



SUGGESTED PROCEDURAL
MODIFICATIONS

STEP I - THE COMMISSION

- | | |
|--|---|
| 1. What are the facts that govern the options? | 1. Determined by contractors. |
| 2. In digest form, what do these facts mean? | 2. Determined by contractors and staff. |
| 3. How were the facts gathered? [research history] | 3. Staff. |
| 4. How are the facts interrelated? [cross- index] | 4. Staff. |
| 5. What, in terms of costs and benefits, do the facts tell us? | 5. Determined by contractors and staff. |

STEP II - THE COMMISSION STAFF REFERS TO THE DOMESTIC COUNCIL (under the aegis of the Commission Chairman):

- a. Digests;
- b. Research history;
- c. Index;
- d. Cost-benefit analysis.

STEP III - DOMESTIC COUNCIL REVIEW GROUP (cf. TAB C)

1. Organization

- a. Coordinator: Governor Shafer, with Secretary Morton and Rod Hills;

b. Membership: representatives from the following:

- The Attorney General (who will also suggest an economist)
- The Secretary of Commerce (who will designate a three-man team, to include liaison with the Bureau of Economic Analysis);
- The Office of Management and Budget
- The Economic Policy Board [EPA?]

2. Procedures

- a. Receipt of Material from the Commission Staff -
 - by the Coordinator;
- b. Logging and routing material (simultaneous, rather than circular, distribution):
 - by the Coordinator;
- c. Comments -
 - on data, noting differences in "fact patterns" supplied in the digests;
 - on cost-benefit conclusions and possible recommendations, especially in light of the Administration's position;
 - by members of the review group;
- d. Digesting and summarizing of comments-
 - by the Coordinator, as assisted by Domestic Council staff;
- e. Return of results to the Commission staff-
 - by the Coordinator.

THE WHITE HOUSE
WASHINGTON

April 17, 1975

MEMORANDUM FOR THE PRESIDENT

FROM : JIM CANNON

SUBJECT : Domestic Council Study of
U.S. Environmental Policy

I recommend that the Domestic Council undertake a study of domestic environmental programs and policies, to determine their effectiveness, consistency with other national objectives, direct and indirect costs, and impact on the creation of new jobs and on productivity.

SUBJECT OF STUDY

The study would review existing Federal programs on air and water pollution and land use, including their impact on the consumer and on the economy as a whole, their consequences for specific major industries, and their interplay with State and local priorities.

OBJECTIVE

The objectives of the study are:

- To produce a thorough-going analysis of Federal, State and local environmental programs in operation;
- to assess the efficiency of current environmental programs in meeting national objectives in air and water quality and sound land use, to see if they need improvement; and,
- if warranted by the conclusions of the study, to formulate for your consideration a series of policy options for modifying existing programs and policies to better serve the national interest.



ORGANIZATION

The review group for this study should include appropriate representatives of the following Departments and Agencies:

Treasury	CEA
Interior	EPA
Agriculture	CEQ
Commerce	EPB
Labor	FEA
HUD	ERDA
Transportation	Nuclear Regulatory Commission
OMB	Office of Consumer Affairs, HEW
	Council on Wage and Price Stability

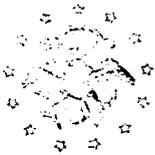
RECOMMENDATION

The Vice President, Secretary Morton, Phil Buchen, Max Friedersdorf, Alan Greenspan, Bob Hartmann, Jim Lynn, Jack Marsh, Russ Peterson, Bill Seidman, Russ Train, and Frank Zarb have reviewed this memorandum and recommend approval.

DECISION

 Approve Disapprove





THE VICE PRESIDENT
WASHINGTON

July 10, 1975

MEMORANDUM FOR: THE PRESIDENT
FROM: THE VICE PRESIDENT *WJZ*
SUBJECT: Report of the National Commission on Water Quality

The National Commission on Water Quality, of which I am Chairman, was established to study the impacts of Public Law 92-500, the 1972 amendments to the Federal Water Pollution Control Act. The final report of the Commission is scheduled to be submitted to Congress early next year. It can be a tremendously important report because it can set the stage for developing the proper balance between achieving our ecological objectives and preserving growth and productivity.

\$17 billion has been spent for more than 50 feet of studies, analyzing the impact of the Act. Draft chapters and development documents for the final report are now being prepared. Much of the material is of a highly technical nature, and to analyze and synthesize it requires professional advice that is not independently available to me from the Commission staff.

Further, it affects ongoing programs in the Executive Branch of the Government on which the Administration has policy positions. Although the Commission is an independent group and may well differ from those positions, it is important that I, as Chairman, have detailed background information on those potential differences.

If you approve, I would like to call on the following to assist me in this effort:

Justice Department
Commerce Department
Interior Department
Treasury Department
Environmental Protection Agency
Council of Economic Advisers
Rodney Hills

APPROVED _____

DISAPPROVED _____

R
Water

MEETING WITH DEPARTMENT AND AGENCY HEADS REGARDING
THE WATER QUALITY COMMISSION

Monday, July 14, 1975
(90 minutes - 12:30 p.m. Lunch)

The Conference Room

From: Dick Allison *Dick*

- I. PURPOSE: To ask Departments and Agencies to provide assistance in connection with the work of the Water Quality Commission.

- II. BACKGROUND/PARTICIPANTS/PRESS ARRANGEMENTS:
 - A. BACKGROUND.
 1. The 50 feet of data provided by the staff of the Water Quality Commission is highly technical. It requires further analysis and synthesis so that the economic impact of the Water Quality Act may be accurately determined. This, in turn, requires assistance from Department and Agency staffs, because the Commission staff itself does not have the capability to do this on its own.
 2. On July 10, the President authorized you to call on Departments and Agencies to assist you. (TAB A)
 3. The purpose of this meeting is to solicit Department and Agency staff assistance and to establish an informal task force headed by Governor Shafer, with Donna Mitchell's help, to coordinate for the Water Quality Commission the staff support which the Departments and Agencies will provide.
 4. Donna Mitchell will have copies of the following for distribution and circulation:
 - a. Roster of contractors; (TAB B)
 - b. Study plan; (Attached)
 - c. Study program; (TAB C)
 - d. (No suitable draft chapters or digests have, as yet, been prepared.)

B. PARTICIPANTS.

1. Rogers Morton, Edward Levi, Jim Lynn, Rod Hills, Ray Shafer, Donna Mitchell, Jim Cannon, Bill Seidman, Dick Allison.
2. Regarding EPA's inclusion, see Donna Mitchell's letter (TAB D).

C. PRESS ARRANGEMENTS. None.

III. TALKING POINTS

1. Welcome.
2. Introduce Governor Shafer and explain his role of assisting you in the work of the Water Quality Commission. Also introduce Donna Mitchell.
3. Describe the main thrusts of the Administration's domestic policies:
 - to provide jobs;
 - to support small businesses (and, hence, strengthen the free enterprise system).
4. Point out the dangers implicit in attempts to further regulate the economy. The result would:
 - force many small businesses to close their doors;
 - dry up sources of capital, who could no longer find sufficient rates of return.
5. The purpose of the Water Quality Commission has been to determine the economic impact of the Water Quality Act. The volume of data which has been acquired provides strong evidence that its economic impact could be severely detrimental.
6. The task is to make sure that this data "rises to the surface" and that is why the assistance of Departments and Agencies is needed.
7. What is being proposed is the establishment of a small, informal task force, headed by Governor Shafer, with the assistance of Donna Mitchell, which would establish the next steps in pulling this data out -- and coordinate with the Agencies and Departments regarding what particular assistance they can furnish.

cc: Governor Shafer, Jim Cannon, Donna Mitchell

A



706 A

THE VICE PRESIDENT
WASHINGTON

July 10, 1975

MEMORANDUM FOR: THE PRESIDENT
FROM: THE VICE PRESIDENT *WJR*
SUBJECT: Report of the National Commission on Water Quality

The National Commission on Water Quality, of which I am Chairman, was established to study the impacts of Public Law 92-500, the 1972 amendments to the Federal Water Pollution Control Act. The final report of the Commission is scheduled to be submitted to Congress early next year. It can be a tremendously important report because it can set the stage for developing the proper balance between achieving our ecological objectives and preserving growth and productivity.

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Further, ~~it affects ongoing programs in the Executive Branch of the Government on which the Administration has policy positions.~~ Although the Commission is an independent group and may well differ from those positions, it is important that I, as Chairman, have detailed background information on those potential differences.

If you approve, I would like to call on the following to assist me in this effort:

- Justice Department
- Commerce Department
- Interior Department
- Treasury Department
- Environmental Protection Agency
- Council of Economic Advisers
- Rodney Hills

APPROVED *WJR*

DISAPPROVED _____



B

CONTRACTS UNDERWAY - JUNE 12, 1975

B

CONTRACTOR & STUDY AREA	1974 DUE DATES FOR REPORTS												MAX AMOUNT	STUDY		
	Prior	O	E	D	J	F	H	A	M	J	J	A			S	O
GENERAL (SUPPORT) CONTRACTS																
Not'l. Academy of Sciences														0	459,000	Assistance
E.D.S. Federal Corp.															75,000	Sources of data
Linton, Mields, Costen															36,000	Development of the study program
Howard Cook															78,000	
															10,000	Critique & Evaluation
OBLIGATED \$ 688,000 TO BE OBLIGATED \$ -- TOTAL \$ 688,000																

III COSTS & CAPABILITIES OF TECHNOLOGY																
Arthur G. McKee Co.															225,000	INDUSTRIAL - Iron & Steel
Catalytic, Inc. (Tasks A-I)															313,130	Organic Chemicals
(Task J)																Inorganic Chemicals
Catalytic, Inc.															168,000	Petroleum Refining
Engineering Science - Texas															176,000	Pulp & Paper
Hazen & Sawyer															180,000	Electroplating
Lancy Laboratories															182,000	Fruits & Vegetables
Environmental Associates															170,000	Plastics
Procon, Inc.															169,500	Textiles
Lockwood Greene Engrs., Inc.															167,300	Steam Electric Power
Teknekron, Inc.																General Industry
Battelle Columbus Labs.															447,726	MUNICIPAL - Wastewater Treatment
Metcalf & Eddy															77,000	Verification of Municipal Costs
Amer. Public Works Assoc. (APWA)															2,115	Local Agency Needs
Assn. Metro Sewer Agencies (AMSA)															82,000	Urban Runoff
Black, Crow & Kidneis															* 50,000	INNOVATIVE TECHNOLOGY
															* 75,000	AGRICULTURE - Irrigated & Nonirrigated
Iowa State															50,000	Irrigated & Nonirrigated
Texas Corporation															75,000	Irrigated Agriculture
Development Planning Research Assoc.															50,000	Feedlots
Midwest Research, Inc.															*115,000	NON-POINT (mine drainage, silviculture, etc)
University of Calif.															35,000	Cost Pollution from Non-Point Sources
Beychak, Downing, Masselli															12,500	Task Type
															10,300	Consultants
OBLIGATED \$2,969,071 TO BE OBLIGATED \$ 240,000 TOTAL \$3,209,071																

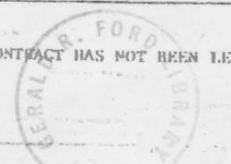
V & Via ECONOMIC, G.P. & GOVT. INCOME & EXPENDITURES																
Advisory Comm. on Intergovt Rel															16,500	NATIONAL IMPACTS
Resources for the Future															7,500	Forecasting Model - State & Local Finance
Center for Environ. & Man															5,000	Consultant - Clifford S. Russell
PIE-C (Pub. Int. Econ. Ctr)															23,700	Consultant - Gaylord Northrup
CONSAD Research Corp.															130,000	Study Design
Control Data Corporation															10,000	SEAS
Control Data Corporation															95,000	Long range task schedule
IRT (Intl Res & Tech Corp)															65,000	SEAS
Interindustry Econ Res Fund															25,000	SEAS
Univ. of Virginia															10,000	INFORUM (Task requests)
Boeing Computer Services, Inc.															15,000	SEAS
5 Individuals															20,000	Critique & Evaluation
V & Via OBLIGATED \$ 422,700 TO BE OBLIGATED \$ -- TOTAL \$ 422,700																

Via & Vii ECONOMIC AND SOCIAL IMPACTS																
The Conference Board															119,300	INDUSTRIAL COMPLIANCE - Framework
National Planning Assn.															89,000	General Industry
IRT (Intl Res & Tech Corp)															175,000	Chemicals, Plastics, etc.
NBER (Nat'l Bur of Econ Res)															379,400	Iron & Steel, etc.
Development Planning & Res															175,000	Selected Agricultural Industries
Teknekron, Inc.															70,900	Steam Electric Power

continued on page 2

KEY: [date] INTERIM REPORT () DRAFT REPORT [] FINAL REPORT 0 END OF CONTRACT < > COMPLETED * CONTRACT HAS NOT BEEN LET

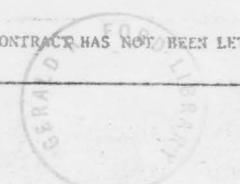
National Commission on Water Quality June 12, 1975



CONTRACTOR & STUDY AREA	1974												MAX AMOUNT	STUDY	
	Prior	O	N	D	J	F	M	A	M	J	J	A			S
VIa & VIb ECONOMIC & SOCIAL IMPACTS (continued)															
Meta Systems														120,000	MUNICIPAL COMPLIANCE
Center for Naval Analysis														115,000	INTERNATIONAL TRADE
Urban Systems Res & Engr	8/3		N1											91,500	INCIDENCE & DISTRIBUTION
National Planning Assn.					J15	F15								192,500	BENEFITS - Recreation
Battelle Memorial Inst.	9/3				J2									100,000	Beach Closings & Reopenings
David M. Dornbush & Co.	8/9				D30	F15								140,000	Property Value
Florida State University	8/30		N15		J3									75,000	Commercial Fisheries
Abt Associates			D15	N15	J15		M14							190,000	SOCIAL IMPACTS
Human Resources Plan. Inst. (HRPI)														42,230	Analysis of Social Impacts
Data Resources, Inc.														* 50,000	SUPPLY CONSTRAINTS
Conference Board														69,600	STATE & LOCAL FINANCE
														25,000	FINANCIAL MARKETS
														*60,000	*Reserved for Report Preparation
Via & VIb OBLIGATED \$2,169,430 TO BE OBLIGATED \$ 110,000 TOTAL \$2,279,430 Total Econ. - OBLIGATED \$2,592,130 TO BE OBLIGATED \$ 110,000 TOTAL \$2,702,130															
II & VIc PRESENT WATER QUALITY & ENVIRONMENTAL IMPACTS															
Institute of Ecology														45,000	TIE PHASE I
Institute of Ecology (Extension)														86,000	TIE PHASE II, III
Hydroscience														59,115	WATER QUALITY MODELLING
Center for Environ. & Man														28,400	LOGISTIC SUPPORT-ENV. SECTOR 6/75-9/75
														30,000	*Marine Disposal of Less Than Secondary Treated Effluent
Meta Systems				D1		F28		A15	M15					48,566	RIVER-REACH St. Johns, Me. (Site 1)
Process Research				D1		F21		A15	M15					68,965	Boston Harbor, Charles River (Site 2)
Center for Environ. & Man				D1		F18		A15	M15					56,165	Connecticut River (Site 3)
Lawler, Matusky & Skelley, Engr.				D1		F28		A15	M15					103,450	Housatonic, Susquehanna (Sites 4,5)
CKY & Associates					J15	F28	M15							15,434	rotomac (site 6)
Academy of Natural Sciences						F18		A15	M15					112,000	Potomac River-Vic, Santee River, Upper Rio Grande River (Sites 6,8,18)
TRW				D1		F28		A15	M15					52,400	Yadkin-Pegee River & Estuary (Site 7)
Va. Inst. of Marine Sciences				D1		F28		A15	M15					59,100	Chesapeake Bay (Site 9)
Coastal Ecosystems Mgmt, Inc.						F15		A15		J10	J1			65,000	Lower Mississippi R. & Delta (Site 10)
Atlantis Scientific				D1		F18		A15	M15					102,160	Escambia River & Bay, St. John Estuary (Sites 11,29)
North Star Res. & Devel. Inst.						F3		A15	M15					80,300	Iowa & Cedar, Minn-Miss-St Croix (13,15)
Water Resources Engineers						F3			M15					68,700	Iowa & Cedar, Minn-Miss-St Croix, Santee River, S. C. (Sites 13,15,8)
Water Resources Engineers				D1		F28		A15	M15					170,335	Trinity River, Guadalupe-San Antonio River Basin, Biscayne Bay (12,16,28)
Midwest Research				D1		F28		A15	M15					72,500	Lower Missouri River (Site 14)
Tetra Tech Inc.				D1		F14		A15	M15					312,500	Columbia River, Snake River (Sites 19,20) S. Platte River, Gulf of Alaska, Hawaii Islands, Puerto Rico. S. Calif. Bight (Sites 17,21,22,23,24)
				D1		F14		A15	15						
Parametrix						F3		A15	M15					69,130	Columbia River, Snake River (Sites 19,20)
Lawler, Matusky & Skelly Eng.										J14	A1			69,700	Hudson River (Site 25)
Environmental Analysts										J2	J1			50,000	Illinois (Site 26)
Environmental Dynamics, Inc.										J2	J3			50,000	Utah Lake-Jordan River (Site 27)
														*50,000	Lakes & Impoundments
Vanderbilt University										J2	J2			50,000	J.Percy Priest Reservoir (Tenn) (Site 30)
Environmental Quality Systems, Inc.														230,000	RESIDUAL DISPOSAL
Florida State University	8/30		N15		J3			A1	M1	J1				33,250	COMMERCIAL FISHERIES
OBLIGATED \$2,130,205 TO BE OBLIGATED \$ 80,000 TOTAL \$2,210,205															

continued on page 3

KEY: [date] INTERIM REPORT ○ DRAFT REPORT □ FINAL REPORT ○ END OF CONTRACT ◇ COMPLETED * CONTRACT HAS NOT BEEN LET



CONTRACTOR & STUDY AREA	1974 DUE DATES FOR REPORTS 1975												MAX AMOUNT	STUDY			
	PRIOR	O	N	D	J	F	M	A	M	J	J	A			S	O	
VII INSTITUTIONAL CAPABILITIES																	
Elizabeth Haskell																2,000	Draft Study Design
Touche Ross & Co.						F10		A30	M30							161,000	CONSTRUCTION GRANTS - Grants & Financing
Harold F. Wise				D16		F14		A30	M31							105,194	PLANNING - Planning
Energy & Environ. Analysis						F3	M15	A30	M31							* 10,000	Interstate Authority
Energy Resources Co.						F15	M15		M13	J30						125,000	REGULATION/ENFORCEMENT - Permit System
Environmental Law Institute					J31	M15	A30	M31								* 20,000	Effluent Limitations
Oregon Research Institute						F15			M1		J15	A15				69,850	Compliance Monitoring
James Ragan & Associates						F1		A30	M30	J30						125,000	Enforcement
David Hartley										J30	J31					118,300	RESOURCES & CONSTRAINTS - Attitudes
Victoria Price										J30	J31					78,100	Public Participation
Ferry Miller																* 25,000	Statutory Authority
2 Consultants (Whitman, Haskell)																12,000	Problems of Doers
																10,000	
																3,000	Evaluation of Decision Maker Study
																4,000	Critique & Evaluation
OBLIGATED \$ 813,444 TO BE OBLIGATED \$ 55,000 TOTAL \$ 868,444																	

VIII REGIONAL ASSESSMENT																	
A. D. Little																21,500	Study Design
Lester M. Klashman																1,000	Consultant
Abt Associates, Inc. et al						F1				J1		A15				197,532	Merrimack-Nashua
Betz Environmental Engrs., et al						F1	M31		M13		M14	J14				230,000	Delaware & Delaware Bay
Dames & Moore, et al						F1				J1		A15				216,000	Ohio
Dames & Moore, et al						F1				J1		A15				230,000	Kanawha
Dalton, Dalton, Little & Newport, et al						F1				J1		A15				290,000	Lake Erie
Hammer, Siler & George, et al						F1				J1		A15				205,000	Chattahoochee-Flint-Apalachicola
Bernard Johnson, Inc. et al						F1				J1		A15				265,000	Houston Ship Channel/Galveston Bay
Stevens, Thompson & Runyan, et al						F1				J1		A15				200,000	Yellowstone
Utah State University, et al							M10				G15		S1			230,000	Colorado
A. D. Little, et al						F1				J1		A22				280,000	San Francisco Bay/Central Valley
Stevens, Thompson & Runyan, et al						F1				J1		A15				220,000	Puget Sound/Lake Washington
OBLIGATED \$2,586,032 TO BE OBLIGATED \$ -- TOTAL \$2,586,032																	

TOTALS OBLIGATED \$11,786,882 TO BE OBLIGATED \$ 485,000 TOTAL \$12,271,882

KEY: [date] INTERIM REPORT ○ DRAFT REPORT □ FINAL REPORT ○ END OF CONTRACT ◇ COMPLETED * CONTRACT HAS NOT BEEN LET
 National Commission on Water Quality June 12, 1975



OUTLINEDRAFT REPORTINTRODUCTION AND FINDINGSI. INTRODUCTION

- A. Declaration of national purpose; the restoration and maintenance of the quality of the Nation's waters. (Sec. 101(a).)
- B. The goals, policies and objectives of P.L.92-500.
- C. The charge to the Commission:
 - Section 315
 - Commission's interpretation and expansion of mandate.

II. FINDINGS

Summarization of the findings of the Commission studies addressed to the following issues:

A. Do we have the technology?

Are technologies available to meet the goals and requirements of the Act? What overall evaluations can be made? What trends are discernible? What costs are associated with different technologies?

B. Can it be applied?

What are the prospects for having best practicable and best available technologies in place by 1983?

-- For municipal systems

-- For industry.

C. What are the impediments?

Likely significant constraints toward achievement of the BPT and BAT and their relative importance.

-- Money

-- Manpower



- Technological adaptation
- Resource availability
- Changing public needs and private requirements
- Bureaucratic inertia and repetition
- Intergovernmental cooperation or lack thereof.

D. What are the environmental impacts?

- Of achieving or not achieving by 1983
- Of not achieving in a longer time frame
- Of elimination of discharge
- Of failing to control non-point sources.

E. Who pays and how much?

What are the economic and social impacts of implementing P.L. 92-500?

- In the public sector.
- In the private sector.

F. Who benefits and how much?

What are the expected benefits to accrue from the implementation of the Act's requirements and to whom?

- Environmental restoration
- Recreational benefits (public and private)
- Social benefits
- Economic values (public and private)
- Public health and well-being.

G. How fast are we moving toward the goal of elimination of discharge of pollutants? When are we likely to get there? At what cost? At what advantage?

H. Uniform application of the Act's requirements: How well are they working nationally, regionally and locally?



I. Institutional structure.

Does the national water pollution control program, as set out in P.L.92-500, establish a pattern of intergovernmental relationships conducive to the most effective and productive delivery of:

- Financial resources
- Regulations and permits
- Compliance and enforcement
- Others.

J. Potential for planning.

What is the long-range potential for control of water pollution through the various planning provisions set forth in the Act?

K. How far off-course are we in 1975 from the directives and goals of the Act?

- What mid-course corrections or adjustments seem advisable?
- What are their implications for achievement of the goals and requirements of the Act?

Summarization of (1) the present water quality situation; (2) the structure and mechanics of the water pollution control program -- past and present; and (3) the existing state of control technology.

III. HOW IS THE WATER? ITS QUALITY AND QUANTITY

A summarization of what has been learned about the present quality of the Nation's waters.

- Brief description of study strategy of minimum geographical regions.
- Present quantity and quality, based on findings of Study Areas II and VI.a.



- Regional concentrations and variations.
- Trends.

IV. WHAT HAS AND IS BEING DONE ABOUT IT?

The evolution of a national water pollution control program in the context of its institutional development.

A. Pre-1972.

- WPA's contribution to construction of municipal treatment systems.
- Role of U.S. Public Health Service.
- Water quality standards.
- State initiatives and actions, and federal limitations (i.e., constitutional, jurisdictional, traditional, etc.).
- Corps of Army Engineers permit authority.

B. An articulation of national program; the Act as a mechanism for control.

- Technology; effluent limitations.
- Regulation; permits and enforcement.
- Finances; construction grants.
- Planning; non-degradation and non-point source control.

V. TECHNOLOGIES FOR ACHIEVING

An assessment of the general technological options available for alternative levels of effluent control, including BPT, BAT and EOD. Since the Act is fundamentally technologically based, the report should deal,



first, with just what technological options exist or are likely to exist, their per unit costs, relative effectiveness, resource requirements including manpower, and quantity and quality of residuals remaining.

A. Point source control.

- Industrial; in-depth and general
- Municipal (including urban runoff)
- Agricultural point sources.

B. Non-point source control.

C. Toxics and heavy metals.

D. Regional variations relevant to technological application.

E. Areas for research and development.

IMPACT ASSESSMENT

The impacts of the application of the requirements of P.L. 92-500 evaluated under varied assumptions as to future economic circumstances in the U.S.

VI. THE ECONOMICS OF WATER QUALITY

A. Water as an economic resource.

- The transition in the use of water from a relatively free good to an increasingly costly resource for municipal and industrial development.
- Implications for trends in industrial and municipal use. (Conference Board and META Systems studies, supported by technology assessments.)

B. Dynamics of the economy in relation to water quality control.

1. Without the Act; continuation of present trends.

- National level; for the public and private sectors.
- Regional and local levels; for the public and private sectors.



2. With the Act; assumes implementation of requirements by 1977 and 1983.
 - National level; for the public and private sectors.
 - Regional and local levels; for the public and private sectors.
3. With various assumptions of achievement and non-achievement; i.e., the assessment of the effect on the economy of variabilities in time, money and resources.
 - National level; for the public and private sectors.
 - Regional and local levels; for the public and private sectors.
- C. What are the requirements for capital investment and for operation and maintenance annual expenditures to meet the levels of effluent limitations required by the law for 1977, 1983 and other levels intermediate and beyond for:
 - Municipalities, including combined sewers and storm water runoff.
 - Industry
 - Agriculture
 - Non-point sources
- By:
 - Region
 - National
- D. Who pays: How and by whom will the facilities required by the Act be paid for and will the necessary manpower and materials be available?
 - Industrial requirements; relative impact upon specific industries and how they will likely be internalized or passed on.
 - Municipal requirements; intergovernmental transfers, indebtedness, revenue availability and competing public needs.
 - Supply constraints.
 - Social impacts.
 - Possible effects on long-term growth and productivity, including relative impact on international competitive position.
 - Regional variations.



E. Who benefits?

- Industrial competition
- Resource recovery
- Commercial fisheries

- Recreational use (including sports fishing)
- Public and private value from water reuse
- Social impacts
- Public health and welfare
- Regional variations.



VII. ENVIRONMENTAL EFFECTS

A. Anticipated environmental impacts or changes from the application of:

- BPT
- BAT
- More stringent than BAT
- EOD.

(This will be a generalized assessment of incremental water quality changes attributable to the successive application of uniform effluent controls in a range of geographic regions throughout the country.)

B. Residual disposal alternatives; environmental impacts of:

- Marine
- Atmospheric
- Land
- Mass balance effects.

C. Anticipated changes nationally and regionally from achieving and not achieving in:

- Fish, shellfish and wildlife
- Recreational opportunities
- Health effects
- Aesthetic values
- Acceptability of waste disposal options, i.e., ocean discharge of primary effluent; deep well disposal; others.
- Areas for research.



VIII. INSTITUTIONAL ASSESSMENT

- A. Overall impact of the Act and its implementation on the institutional structure and capacity of:
 - Federal government
 - State government
 - Local government
 - Private institutions.

- B. Capabilities of and constraints on institutional cooperation and coordination:
 - Intergovernmental relationships (federal/state/local)
 - Intragovernmental relationships
 - Public-private relationships.

- C. Evaluation of the effectiveness of:
 - Permits
 - Compliance
 - Enforcement
 - Planning
 - Construction grants.

- D. Constraints on institutional performance.
 - Financing
 - Manpower
 - Time
 - Attitudes
 - Public participation.

- E. State and regional variations.



IX. ALTERNATIVE SCENARIOS

A synthesizing chapter in which selected levels of treatment will be assessed for economy and social impact and implications of a selected range of variable conditions in:

- Funding
- Timing
- Resource constraints
- Capital markets and governmental fiscal policy
- Competing public and private needs
- Others.

- 0 -

APPENDIX

Explanation of study methodology.



VICE PRESIDENT NELSON A. ROCKEFELLER

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EXECUTIVE DIRECTOR

TELEPHONE

202 254-7806

National Commission on Water Quality

1111 18TH STREET, N.W.

P. O. Box 19266

WASHINGTON, D. C. 20036

July 11, 1975

MEMORANDUM TO THE VICE PRESIDENT

FROM: DONNA MITCHELL

SUBJECT: Your memorandum of July 10 to the President

You asked Dick Allison to find out why the Environmental Protection Agency was included with the Departments and Agencies you wished to assist you with this Commission's work.

I thought I had better include EPA, just in case you wanted to call on them. Russ Train's people have been reviewing and making detailed comments on nearly all our contractor reports. I don't have easy access to these EPA comments; they haven't been given to the Commissioners' staff representatives, and are stuffed in individuals' files all over the place.

I simply didn't think to explain this to you. I think I now see your problem with it, though, and am just as sorry as I can be that I didn't write an alternative memo for you to take to the President, without EPA on the list.

Donna



D

Study Plans

February, 1974

NATIONAL COMMISSION ON WATER QUALITY

Chairman

Hon. Nelson A. Rockefeller

Vice-chairmen

Hon. Edmund S. Muskie

Hon. Robert E. Jones

“There is established a National Study Commission,” now known as the National Commission on Water Quality, “which shall make a full and complete investigation and study of all the technological aspects of achieving, and all aspects of the total economic, social, and environmental effects of achieving or not achieving, the effluent limitations and goals set forth for 1983 in section 301 (b)(2) of this Act.

“Such Commission shall be composed of fifteen members, including five members of the Senate, who are members of the Public Works Committee, appointed by the President of the Senate, five members of the House, who are members of the Public Works Committee, appointed by the Speaker of the House, and five members of the public appointed by the President. . . .

“A report shall be submitted to the Congress of the results of such investigations and study, together with recommendations, not later than three years after the date of enactment of this title. . . .”

The National Commission on Water Quality was created by Section 315 of the Federal Water Pollution Control Act Amendments of 1972. Under this Act, the Commission is required to carry on a series of studies and investigations, using the resources of the nation’s scientific and research community.

The principal effort of the Commission will be to conduct an investigation that will give the Nation the opportunity of judging the costs and benefits associated with the national commitment to clean water, as reflected in the 1972 Act. Its main focus will be the “technological aspects of achieving, and all the aspects of the total economic, social, and environmental effects of achieving or not achieving the effluent limitations and goals set forth for 1983.”

It is the Commission’s belief that a comprehensive study of the goals and requirements for 1983 cannot be properly undertaken without attention to the progress made toward clean water by industries and municipalities under the 1977 requirements. The Commission also intends to examine progress toward the “elimination of the discharge of pollutants” as an indicator of what will remain to be done after 1983.

The 15-member Commission has adopted a plan of study which will guide its investigations. The plan is presented below, in nine sections.

I. Definition of Terms

This section will embody a statement of the specific tasks assigned the Commission, based on the statutory language of the Act, but substituting actual language for cross references to other sections. A brief statement will review the legislative

from Sec. 315. of the Water Pollution Control Act Amendments of 1972 (Public Law 92-500)

history and incorporate other comments where appropriate. Where the Administrator of EPA promulgates definitions as directed in the Act, the Commission will use those definitions as available. Lacking EPA definitions, the Commission will develop definitions for its use. As the work proceeds, any definitions or guidelines issued by the EPA that fall within the Commission's charge will be considered by the Commission. A glossary of terms will be prepared to define the words used in staff and Commission reports.

II. Description of Present Water Quantity and Quality

The Commission, using data and reports from the Environmental Protection Agency, the United States Geological Survey, State, regional and local agencies, and other sources, will prepare a description of the current (1973-74) quantity and quality of the Nation's waters. The study will indicate those areas where data are available and adequate for defining the current quality of the water. For those areas where data are inadequate, the Commission will recommend appropriate steps to remedy the deficiencies in the data. Attention will be given to toxic constituents and those which reflect the biological condition of the water. This statement will establish the base line against which improvements in water quality stemming from 1977 and 1983 regulatory requirements will be assessed. This description will also be used to compare current quality with the requirements of Section 302 of the Act. The Administrator of EPA is directed by the Act to prepare an inventory of national water quality by January 1, 1974, which may be adaptable for Commission use.

III. Capabilities and Cost of Technology

The Commission will assess and identify the current and potential technological capabilities and fiscal and economic costs of achieving effluent reduction or elimination from municipal, industrial and other point and non-point sources and will quantify the economic, social and environmental costs of achieving effluent reduction or elimination for the requirements and goals of the Act.

Special emphasis will be given to the following:

1. progress being made toward effluent limitations based on "secondary treatment" of municipal wastes, "best practicable control technology currently available" for industrial wastes (the 1977 standard) if they are necessary for the statutory assessment of 1983 requirements, and
2. investigation and assessment of effluent limitations based on "best practicable waste treatment technology over the life of the works" for publicly owned treatment works and "best available technology, economically achievable" for industrial point sources (the 1983 standard) including assessment of their achievement in relation to the 1983 water quality goal of "protection and propagation of fish, shellfish, and wildlife and for recreation in and on the water."
3. an analysis of what remains to be done toward the elimination of "the discharge of pollutants into the navigable waters" (the 1985 goal) for those sources which the 1983 study determined would be less than no discharge.

To accomplish the above, the Commission will examine:

- 1) the fiscal and economic cost and benefits of the technology, including

financing, installation, maintenance, operation, cost changes (including reductions) resulting from process changes, modernizing or other in-plant practices resulting from the required effluent limitations.

2) the degree of effluent reduction, in terms of both volume and constituents, achievable through implementation of the requirements and goals of the Act.

3) the expected costs of not achieving these requirements in terms of restricted water uses and treatment costs for municipal, industrial and agricultural water supplies. Effluent limitations promulgated by EPA and their supporting technical and economic reports will be used by the Commission for this examination. Additional information from any reliable source relating to "best practicable waste treatment technology over the life of the works" and "the best available technology economically achievable" will be used by the Commission to update or refine EPA's limitations and analyses so that technological capability and cost studies will be as accurate as possible.

Where reduction or elimination of the discharge of pollutants results in residual wastes, costs of disposal of these residuals will be examined. Methods of minimizing or reducing the pollutants from non-point sources will also be analyzed.

IV. Application and Reconciliation of Costs and Resultant Levels of Water Quality on a Nation-wide Basis

Data obtained from the analysis of costs of application of the requirements of the Act will be matched with available data on sources discharging into individual river basins to aggregate costs for the Nation. These costs will reflect regional and national costs of achieving the applicable effluent limitations.

The changes in volume and constituents of effluents achievable through the reduction or elimination of the discharge of pollutants will be used, together with data on present water quality in such basins to determine the resulting water quality in relation to the 1983 requirements of Section 302(a) of the Act.

V. Projection of GNP and Governmental Income and Expenditures

As a basis for examining economic and other impacts, the Commission will prepare projections of the annual Gross National Product and governmental income and expenditures through 1985.

The Commission will examine annual estimated income of Federal, State and local governments in relation to projected estimates of the various public demands for expenditures of these revenues, for such purposes as the environment, education, health, welfare, defense, etc.

The Commission will also examine private capital and income projections and demands in relation to the demands imposed by the regulatory requirements of the Act. Accruals to the Gross National Product and governmental income as a result of compliance with requirements of the Act will be included in such projections.

Such projections will permit comparison of public and private revenue resources in relation to projected demands on such revenues as a result of the requirements to reduce or eliminate the discharge of pollutants. Governmental income and expenditure projections will permit comparisons of the various cost levels with public (governmental) as well as private (industry) outlays.

VI. Impacts—Economic, Social and Environmental

Economic—Results from the analysis of the costs, benefits, and capabilities of techniques to reduce or eliminate the discharge of pollutants, together with projections of GNP and governmental income and expenditure, will be used to ascertain the economic costs and benefits of achieving or not achieving the requirements of the Act. As a first step, cost estimates for industrial and municipal requirements for 1977 will be used.

Secondly, cost and benefit figures associated with the achievement of the 1983 requirements for industry and municipalities will be used to evaluate the effects on the economy, nationally, regionally and by various industrial sectors. Finally, in those cases where the "elimination of the discharge of pollutants" is technically feasible and economically measurable, projected economic impacts (positive and negative) will be assessed. The economic impact of changes in quality as they affect the quantity of water available for use will be analyzed.

Environmental—The Commission will identify the chemical, physical, and biological composition of water necessary to restore and maintain the integrity of the Nation's waters and to provide for the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water. Using the description of present water quality and the analysis of capabilities to reduce or eliminate discharges of pollutants, the resulting expected water quality level will be compared with the level necessary to support the 1983 requirements of Section 302(a) of the Act as well as the ultimate objective of the

Act, to determine whether the goals will be achieved as a result of the implementation of the requirements of the Act. The environmental consequences of achieving or not achieving the 1983 treatment requirements can then be assessed. Impact of the reduction or elimination of pollutants on water quality will also be studied. Because there will be residuals from some effluent reductions, the environmental effect of their disposal will be considered.

Social—Achieving or not achieving the Act's requirements and goals can have social costs and benefits. These impacts will be identified and described. Among the social factors to be considered are levels of employment, shifts in employment—either within industry or government and geographically, available leisure and recreational opportunities, health effects, changing requirements for technical skills, effect on regional development, and the general quality of life resulting from achieving or not achieving the goals of the Act.

VII. Institutional Capabilities

The Commission will evaluate Federal-State-Regional-local institutions and inter-institutional arrangements for water pollution control to analyze their administrative and financial capabilities to accomplish the legislative requirements and goals. Alternative divisions of required public expenditures will be examined for relative impacts on governmental programs. Alternative institutional arrangements for financing public and private compliance with regulatory requirements of this Act for setting and implementing standards and effluent limitations and managing and

enforcing water pollution control programs will be studied.

VIII. Regional Assessment Studies

Eight or ten representative river basins with the best available data will be examined in depth to test and validate the projections developed on a national basis. Sociological and environmental, as well as economic, impacts will be characterized and pinpointed wherever possible. Anticipated improvements in water quality resulting from required effluent limitations will be described to identify possible changes that could come from "achieving or not achieving" the requirements and goals of the Act. Special attention will be given to those areas where quantities available for use are restricted or expanded by changes in water quality. Institutional relationships will be evaluated.

IX. Data Accumulation and Future Use

The Commission will examine means to keep Congress informed on a continuing basis, using its experience as a point of departure. Recognizing the complex interrelationships between the water pollution control program and many facets of the Nation's well-being, the Commission will suggest methods for Congress to obtain, in the future, the widest possible range of reliable information with which to judge, on a continuing basis, the whole program and to make adjustments.

National Commission on Water Quality

From the Senate:

Jennings Randolph
Edmund S. Muskie
Lloyd M. Bentsen
Howard H. Baker, Jr.
James L. Buckley

From the House of Representatives:

John A. Blatnik
Robert E. Jones
James C. Wright, Jr.
William H. Harsha
James R. Grover, Jr.

From the Public:

Edwin A. Gee
William R. Gianelli
Raymond Kudukis
Nelson A. Rockefeller
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to set in at
7:30.

3 Allen over (date)
J. J. over Chey's
2 Water Comm Dept
J. J. over Mr
C. J. over
Dicks over Mr
C. J. over