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DELAWARE RIVER BASIN COMMISSION

A Project to Control Water Pollution in the Delaware River Basin

October 1, 1981 to September 30, 1982

July 1981

INTRODUCTION

The following pages present the proposed FY 1982 Water Pollution Control Program Plan for the Delaware River Basin Commission.

Major components of the plan include continuing efforts in (1) water quality assessment (2) development of waste load allocations (3) planning activities (4) water quality standards (5) water quality monitoring (6) EPA NPDES permit and DRBC project review (7) technical services (8) inter-agency and public communication and (9) administration of the total Water Pollution Control Program. A major portion of the water quality program is directed to continuing activities required by the Commission. As in the past, specific attention will be given to finding solutions when problems arise involving specific water quality parameters. As needed in some cases, enforcement assistance will be provided by the Commission.

Major efforts will be directed to development of up-dated Estuary waste load allocations from several recently designed mathematical models. Continued emphasis on the upper basin is evidenced by an annual limnological survey of the Upper Delaware River Basin.

The Commission conducts a multi-faceted program for conveying information to the general public and private sectors of government and industry and for providing opportunities for public interchange. An annual report is distributed to state and Federal offices and to the public.

The plan addresses each major task individually, indicating the task objective, a descriptive narrative, target dates of outputs and resources required.

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STATE AND LOCAL NONCONSTRUCTION PROGRAMS

OMB Approval No. 80-R0180

FEDERAL ASSISTANCE

SECTION I—APPLICANT/RECIPIENT DATA

1. TYPE OF ACTION (Mark appropriate box)	☒ PREAPPLICATION ☐ APPLICATION ☐ NOTIFICATION OF INTENT (Opt.) ☐ REPORT OF FEDERAL ACTION	2. APPLICANT'S APPLICATION a. NUMBER	b. DATE Year month day 1981 July31
Leave Blank		3. STATE APPLICATION IDENTIFIER a. NUMBER	To be assigned
		b. DATE ASSIGNED Year month day 19	

4. LEGAL APPLICANT/RECIPIENT

a. Applicant Name: Delaware River Basin Commission
b. Organization Unit:
c. Street/P.O. Box: P.O. Box 7360
d. City: West Trenton
e. County: Mercer
f. State: New Jersey
g. ZIP Code: 08628
h. Contact Person (Name & telephone No.): Seymour P. Gross 609-883-9500

5. FEDERAL EMPLOYER IDENTIFICATION NO.: 23-1605892

6. PROGRAM (From Federal Catalog)
a. NUMBER: 66.407
b. TITLE: Sec. 106 FWPCA

7. TITLE AND DESCRIPTION OF APPLICANT'S PROJECT

A Project to Control Water Pollution in the Delaware River Basin

8. TYPE OF APPLICANT/RECIPIENT
A— State; B— Interstate; C— Substate District; D— County; E— City; F— School District; G— Special Purpose District; H— Community Action Agency; I— Higher Educational Institution; J— Indian Tribe; K— Other (Specify):
Enter appropriate letter: B

9. TYPE OF ASSISTANCE
A— Basic Grant; B— Supplemental Grant; C— Loan; D— Insurance; E— Other
Enter appropriate letter(s): A

10. AREA OF PROJECT IMPACT (Names of cities, counties, States, etc.): Delaware River Basin

11. ESTIMATED NUMBER OF PERSONS BENEFITING: 7.5 Million

12. TYPE OF APPLICATION
A— New; B— Renewal; C— Revision; D— Continuation; E— Augmentation
Enter appropriate letter: D

13. PROPOSED FUNDING

a. FEDERAL	$ 230,000.00
b. APPLICANT	.00
c. STATE	454,600.00
d. LOCAL	.00
e. OTHER	.00
f. TOTAL	$ 684,600.00

14. CONGRESSIONAL DISTRICTS OF:
a. APPLICANT: *
b. PROJECT: Same as 14a

16. PROJECT START DATE Year month day: 1981 Oct 1
17. PROJECT DURATION: 12 Months
18. ESTIMATED DATE TO BE SUBMITTED TO FEDERAL AGENCY ▶ Year month day: 1981 Sept 30

15. TYPE OF CHANGE (For 12 c or 12 e)
A— Increase Dollars; B— Decrease Dollars; C— Increase Duration; D— Decrease Duration; E— Cancellation; F— Other (Specify):
Enter appropriate letter(s):

19. EXISTING FEDERAL IDENTIFICATION NUMBER: I 00399820

20. FEDERAL AGENCY TO RECEIVE REQUEST (Name, City, State, ZIP code): EPA Region III, Philadelphia, Pa. 19106

21. REMARKS ADDED: ☒ Yes ☐ No

SECTION II—CERTIFICATION

22. THE APPLICANT CERTIFIES THAT ▶

a. To the best of my knowledge and belief, data in this preapplication/application are true and correct, the document has been duly authorized by the governing body of the applicant and the applicant will comply with the attached assurances if the assistance is approved.

b. If required by OMB Circular A-95 this application was submitted, pursuant to instructions therein, to appropriate clearinghouses and all responses are attached:

	No response	Response attached
(1) * See Section IV	☐	☐
(2)	☐	☐
(3)	☐	☐

23. CERTIFYING REPRESENTATIVE
a. TYPED NAME AND TITLE: Gerald M. Hansler, Executive Director
b. SIGNATURE: Gerald M. Hansler
c. DATE SIGNED Year month day: 1981 July 31

SECTION III—FEDERAL AGENCY ACTION

24. AGENCY NAME
25. APPLICATION RECEIVED Year month day 19
26. ORGANIZATIONAL UNIT
27. ADMINISTRATIVE OFFICE
28. FEDERAL APPLICATION IDENTIFICATION
29. ADDRESS
30. FEDERAL GRANT IDENTIFICATION

31. ACTION TAKEN
☐ a. AWARDED
☐ b. REJECTED
☐ c. RETURNED FOR AMENDMENT
☐ d. DEFERRED
☐ e. WITHDRAWN

32. FUNDING

a. FEDERAL	$ .00
b. APPLICANT	.00
c. STATE	.00
d. LOCAL	.00
e. OTHER	.00
f. TOTAL	$ .00

33. ACTION DATE ▶ Year month day 19
34. STARTING DATE Year month day 19
35. CONTACT FOR ADDITIONAL INFORMATION (Name and telephone number)
36. ENDING DATE Year month day 19
37. REMARKS ADDED ☐ Yes ☐ No

38. FEDERAL AGENCY A-95 ACTION
a. In taking above action, any comments received from clearinghouses were considered. If agency response is due under provisions of Part 1, OMB Circular A-95, it has been or is being made.
b. FEDERAL AGENCY A-95 OFFICIAL (Name and telephone no.)

424-102

STANDARD FORM 424 PAGE 1 (Rev 4-77)
Prescribed by OMB Circular A-102

SECTION IV—REMARKS *(Please reference the proper item number from Sections I, II or III, if applicable)*

14. Congressional Districts
    Delaware, at large
    New Jersey 1,2,3,4,5,6,13
    New York 26,27,29
    Pennsylvania 1,2,3,4,5,6,7,8,10,11,13,15,16

22b. This application will be submitted to Delaware, New Jersey, New York, and Pennsylvania state clearinghouses.

GENERAL INSTRUCTIONS

This is a multi-purpose standard form. First, it will be used by applicants as a required facesheet for pre-applications and applications submitted in accordance with OMB Circular A-102. Second, it will be used by Federal agencies to report to clearinghouses on major actions taken on applications reviewed by clearinghouses in accordance with OMB Circular A-95. Third, it will be used by Federal agencies to notify States of grants-in-aid awarded in accordance with Treasury Circular 1082. Fourth, it may be used, on an optional basis, as a notification of intent from applicants to clearinghouses, as an early initial notice that Federal assistance is to be applied for (clearinghouse procedures will govern)

APPLICANT PROCEDURES FOR SECTION I

Applicant will complete all items in Section I. If an item is not applicable, write "NA". If additional space is needed, insert an asterisk "*" and use the remarks section on the back of the form. An explanation follows for each item

Item	
*	Mark appropriate box. Pre-application and application guidance is in OMB Circular A-102 and Federal agency program instructions. Notification of intent guidance is in Circular A-95 and procedures from clearinghouse. Applicant will not use "Report of Federal Action" box
2a	Applicant's own control number, if desired
2b	Date Section I is prepared.
3a.	Number assigned by State clearinghouse, or if delegated by State, by areawide clearinghouse. All requests to Federal agencies *must* contain this identifier if the program is covered by Circular A-95 and required by applicable State/areawide clearinghouse procedures. If in doubt, consult your clearinghouse.
3b.	Date applicant notified of clearinghouse identifier
4a-4h.	Legal name of applicant/recipient, name of primary organizational unit which will undertake the assistance activity, complete address of applicant, and name and telephone number of person who can provide further information about this request
5.	Employer identification number of applicant as assigned by Internal Revenue Service.
6a.	Use Catalog of Federal Domestic Assistance number assigned to program under which assistance is requested. If more than one program (e.g., joint-funding) write "multiple" and explain in remarks. If unknown, cite Public Law or U.S. Code
6b.	Program title from Federal Catalog. Abbreviate if necessary
7	Brief title and appropriate description of project. For notification of intent, continue in remarks section if necessary to convey proper description.
8.	Mostly self-explanatory. "City" includes town, township or other municipality
9.	Check the type(s) of assistance requested. The definitions of the terms are
	A Basic Grant. An original request for Federal funds. This would not include any contribution provided under a supplemental grant.
	B Supplemental Grant. A request to increase a basic grant in certain cases where the eligible applicant cannot supply the required matching share of the basic Federal program (e.g., grants awarded by the Appalachian Regional Commission to provide the applicant a matching share)
	C Loan. Self explanatory
	D Insurance. Self explanatory
	E Other. Explain on remarks page

Item	
10	Governmental unit where significant and meaningful impact could be observed. List only largest unit or units affected, such as State, county, or city. If entire unit affected, list it rather than subunits.
11	Estimated number of persons directly benefiting from project
12.	Use appropriate code letter. Definitions are:
	A. New. A submittal for the first time for a new project.
	B. Renewal. An extension for an additional funding/budget period for a project having no projected completion date, but for which Federal support must be renewed each year.
	C. Revision. A modification to project nature or scope which may result in funding change (increase or decrease).
	D. Continuation. An extension for an additional funding/budget period for a project the agency initially agreed to fund for a definite number of years.
	E. Augmentation. A requirement for additional funds for a project previously awarded funds in the same funding/budget period. Project nature and scope unchanged.
13	Amount requested or to be contributed during the first funding/budget period by each contributor. Value of in-kind contributions will be included. If the action is a change in dollar amount of an existing grant (a revision or augmentation), indicate only the amount of the change. For decreases enclose the amount in parentheses. If both basic and supplemental amounts are included, break out in remarks. For multiple program funding, use totals and show program breakouts in remarks. Item definitions: 13a, amount requested from Federal Government; 13b, amount applicant will contribute; 13c, amount from State, if applicant is not a State; 13d, amount from local government, if applicant is not a local government; 13e, amount from any other sources, explain in remarks.
14a	Self explanatory.
14b	The district(s) where most of actual work will be accomplished. If city-wide or State-wide, covering several districts, write "city-wide" or "State-wide."
15	Complete only for revisions (item 12c), or augmentations (item 12e).
16	Approximate date project expected to begin (usually associated with estimated date of availability of funding).
17	Estimated number of months to complete project after Federal funds are available
18	Estimated date pre-application/application will be submitted to Federal agency if this project requires clearinghouse review. If review not required, this date would usually be same as date in item 2b.

Item	
19.	Existing Federal identification number if this is not a new request and directly relates to a previous Federal action. Otherwise write "NA"
20	Indicate Federal agency to which this request is addressed. Street address not required, but do use ZIP
21	Check appropriate box as to whether Section IV of form contains remarks and/or additional remarks are attached

APPLICANT PROCEDURES FOR SECTION II

Applicants will always complete items 23a, 23b, and 23c. If clearinghouse review is required, item 22b must be fully completed. An explanation follows for each item.

Item	
22b	List clearinghouses to which submitted and show in appropriate blocks the status of their responses. For more than three clearinghouses, continue in remarks section. All written comments submitted by or through clearinghouses must be attached.
23a.	Name and title of authorized representative of legal applicant.
23b	Self explanatory.
23c	Self explanatory.
Note	Applicant completes only Sections I and II. Section III is completed by Federal agencies.

FEDERAL AGENCY PROCEDURES FOR SECTION III

If applicant-supplied information in Sections I and II needs no updating or adjustment to fit the final Federal action, the Federal agency will complete Section III only. An explanation for each item follows:

Item	
24.	Executive department or independent agency having program administration responsibility.
25.	Self explanatory.
26.	Primary organizational unit below department level having direct program management responsibility.
27.	Office directly monitoring the program.
28.	Use to identify non-award actions where Federal grant identifier in item 30 is not applicable or will not suffice.
29.	Complete address of administering office shown in item 26.
30	Use to identify award actions where different from Federal application identifier in item 28.
31.	Self explanatory. Use remarks section to amplify where appropriate.
32.	Amount to be contributed during the first funding/budget period by each contributor. Value of in-kind contributions will be included. If the action is a change in dollar amount of an existing grant (a revision or augmentation), indicate only the amount of change. For decreases, enclose the amount in parentheses. If both basic and supplemental amounts are included, break out in remarks. For multiple program funding, use totals and show program breakouts in remarks. Item definitions: 32a, amount awarded by Federal Government; 32b, amount applicant will contribute; 32c, amount from State, if applicant is not a State; 32d, amount from local government if applicant is not a local government; 32e, amount from any other sources, explain in remarks.
33.	Date action was taken on this request.
34.	Date funds will become available.
35	Name and telephone no. of agency person who can provide more information regarding this assistance.
36	Date after which funds will no longer be available.
37	Check appropriate box as to whether Section IV of form contains Federal remarks and/or attachment of additional remarks.
38	For use with A-95 action notices only. Name and telephone of person who can assure that appropriate A-95 action has been taken—if same as person shown in item 35, write "same". If not applicable, write "NA".

Federal Agency Procedures—special considerations

A. *Treasury Circular 1082 compliance.* Federal agency will assure proper completion of Sections I and III. If Section I is being completed by Federal agency, all applicable items must be filled in. Addresses of State Information Reception Agencies (SCIRA's) are provided by Treasury Department to each agency. This form replaces SF 240, which will no longer be used.

B. *OMB Circular A-95 compliance.* Federal agency will assure proper completion of Sections I, II, and III. This form is required for notifying all reviewing clearinghouses of major actions on all programs reviewed under A-95. Addresses of State and areawide clearinghouses are provided by OMB to each agency. Substantive differences between applicant's request and/or clearinghouse recommendations, and the project as finally awarded will be explained in A-95 notifications to clearinghouses.

C. *Special note.* In most, but not all States, the A-95 State clearinghouse and the (TC 1082) SCIRA are the same office. In such cases, the A-95 award notice to the State clearinghouse will fulfill the TC 1082 award notice requirement to the State SCIRA. Duplicate notification should be avoided.

PROJECT APPROVAL INFORMATION

Item 1.
Does this assistance request State, local, regional, or other priority rating?

Name of Governing Body _____
Priority Rating _____

_____ Yes ___X___ No

Item 2.
Does this assistance request require State, or local advisory, educational or health clearances?

Name of Agency or Board _____

_____ Yes ___X___ No *(Attach Documentation)*

Item 3.
Does this assistance request require clearinghouse review in accordance with OMB Circular A-95?

(Attach Comments)

___X___ Yes _____ No

Item 4.
Does this assistance request require State, local, regional or other planning approval?

Name of Approving Agency _____
Date _____

_____ Yes ___X___ No

Item 5.
Is the proposed project covered by an approved comprehensive plan?

Check one: State ☐
Local ☐
Regional ☒

___X___ Yes _____ No Location of Plan DRBC offices

Item 6.
Will the assistance requested serve a Federal installation?

Name of Federal Installation _____
Federal Population benefiting from Project _____

_____ Yes ___X___ No

Item 7.
Will the assistance requested be on Federal land or installation?

Name of Federal Installation _____
Location of Federal Land _____
Percent of Project _____

_____ Yes ___X___ No

Item 8.
Will the assistance requested have an impact or effect on the environment?

See instructions for additional information to be provided.

_____ Yes ___X___ No

Item 9.
Has the project for which assistance is requested caused, since January 1, 1971, or will it cause, the displacement of any individual, family, business, or farm?

Number of:
Individuals _____
Families _____
Businesses _____
Farms _____

_____ Yes ___X___ No

Item 10.
Is there other related assistance on this project previous, pending, or anticipated?

See instructions for additional information to be provided.

_____ Yes ___X___ No

Item 11.
Is project in a Designated Flood Hazard Area?

Not applicable

_____ Yes _____ No

PART II

Negative answers will not require an explanation unless the Federal agency requests more information at a later date. Provide supplementary data for all "Yes" answers in the space provided in accordance with the following instructions:

Item 1—Provide the name of the governing body establishing the priority system and the priority rating assigned to this project.

Item 2—Provide the name of the agency or board which issued the clearance and attach the documentation of status or approval.

Item 3—Attach the clearinghouse comments for the application in accordance with the instructions contained in Office of Management and Budget Circular No. A-95. If comments were submitted previously with a preapplication, do not submit them again but any additional comments received from the clearinghouse should be submitted with this application.

Item 4—Furnish the name of the approving agency and the approval date.

Item 5—Show whether the approved comprehensive plan is State, local or regional, or if none of these, explain the scope of the plan. Give the location where the approved plan is available for examination and state whether this project is in conformance with the plan.

Item 6—Show the population residing or working on the Federal installation who will benefit from this project.

Item 7—Show the percentage of the project work that will be conducted on federally-owned or leased land. Give the name of the Federal installation and its location.

Item 8—Describe briefly the possible beneficial and harmful impact on the environment of the proposed project. If an adverse environmental impact is anticipated, explain what action will be taken to minimize the impact. Federal agencies will provide separate instructions if additional data are needed.

Item 9—State the number of individuals, families, businesses, or farms this project will displace. Federal agencies will provide separate instructions if additional data are needed.

Item 10—Show the Federal Domestic Assistance Catalog number, the program name, the type of assistance, the status and the amount of each project where there is related previous, pending or anticipated assistance. Use additional sheets, if needed.

Item 11—Flood Insurance—Check "Yes" if project or any nonexpendable property is to be located in a special flood hazard area designated by the Department of Housing and Urban Development. If the answer is "Yes" the grantee must purchase the required flood insurance if required pursuant to Item 7 of the General Instructions to this application.

PART III–BUDGET INFORMATION

SECTION A–BUDGET SUMMARY

GRANT PROGRAM, FUNCTION OR ACTIVITY (a)	FEDERAL CATALOG NO. (b)	ESTIMATED UNOBLIGATED FUNDS		NEW OR REVISED BUDGET		
		FEDERAL (c)	NON-FEDERAL (d)	FEDERAL (e)	NON-FEDERAL (f)	TOTAL (g)
1. Sec. 106 FWPCA	66.407	$	$	$ 230,000	$ 454,600	$ 684,600
2.						
3.						
4.						
5. TOTALS		$	$	$ 230,000	$ 454,600	$ 684,600

SECTION B–SCHEDULE A BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY (1)	(2)	(3)	(4)	TOTAL (5)
a. Personnel	$ 241,850	$	$	$	$ 241,850
b. Fringe Benefits					
c. Travel	8,500				8,500
d. Equipment					
e. Supplies					
f. Contractual	204,500				204,500
g. Construction					
h. Other					
i. Total Direct Charges	454,850				454,850
j. Indirect Charges	229,750				229,750
k. TOTALS	$ 684,600	$	$	$	$ 684,600
7. Program Income	$	$	$	$	$

SECTION B – SCHEDULE B – BUDGET CATEGORIES

6. Program Elements	FUNDING			(4) MAN-YEARS
	(1) FEDERAL	(2) NON-FEDERAL	(3) TOTAL	
a. Water Quality Management Planning	$ 114,555	$ 159,180	$ 273,735	5.75
b. Water Quality Monitoring	90,435	260,665	351,100	3.25
c. Compliance Activities	14,922	20,738	35,660	0.75
d. Other Water Quality Management Activities	10,088	14,017	24,105	0.5
e.				
f.				
g.				
h.				
i. Total Program Elements	$ 230,000	$ 454,600	$ 684,600	10.25
j. STATE TOTAL	$	$	$	

SECTION C–NON-FEDERAL RESOURCES

(a) GRANT PROGRAM	(b) APPLICANT	(c) STATE	(d) OTHER SOURCES	(e) TOTALS
8.	$	$ 454,600	$	$ 454,600
9.				
10.				
11.				
12. TOTALS	$	$ 454,600	$	$ 454,600

SECTION D–FORECASTED CASH NEEDS

	TOTAL FOR 1st YEAR	1st QUARTER	2nd QUARTER	3rd QUARTER	4th QUARTER
13. Federal	$ 230,000	$ 57,500	$ 57,500	$ 57,500	$ 57,500
14. Non-Federal	454,600	113,650	113,650	113,650	113,650
15. TOTALS	$ 684,600	$ 171,150	$ 171,150	$ 171,150	$ 171,150

SECTION E–BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT

(a) GRANT PROGRAM	FUTURE FUNDING PERIODS (YEARS)			
	(b) FIRST	(c) SECOND	(d) THIRD	(e) FOURTH
16.	$	$	$	$
17.				
18.				
19.				
20. TOTALS	$	$	$	$

SECTION F–OTHER BUDGET INFORMATION

(Attach Additional Sheets If Necessary)

21. Direct Charges:

Total $454,850 Federal $230,000 Non-Federal $224,850

22. Indirect Charges:

Total $229,750 Federal 0 Non-Federal $229,750

23. Remarks.

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PART IV–PROGRAM NARRATIVE *(Attach per instruction)*

INSTRUCTIONS

PART III

General Instructions

This form is designed so that application can be made for funds from one or more grant programs. In preparing the budget, adhere to any existing Federal grantor agency guidelines which prescribe how and whether budgeted amounts should be separately shown for different functions or activities within the program. For some programs, grantor agencies may require budgets to be separately shown by function or activity. For other programs, grantor agencies may not require a breakdown by function or activity. Sections A, B, C, and D should include budget estimates for the whole project except when applying for assistance which requires Federal authorization in annual or other funding period increments. In the latter case, Sections A, B, C, and D should provide the budget for the first budget period *(usually a year)* and Section E should present the need for Federal assistance in the subsequent budget periods. All applications should contain a breakdown by the object class categories shown in Lines a-k of Section B.

Section A. Budget Summary
Lines 1-4, Columns (a) and (b).

For applications pertaining to a *single* Federal grant program *(Federal Domestic Assistance Catalog number)* and *not requiring* a functional or activity breakdown, enter on Line 1 under Column (a) the catalog program title and the catalog number in Column (b).

For applications pertaining to a *single* program *requiring* budget amounts by multiple functions or activities, enter the name of each activity or function on each line in Column (a), and enter the catalog number in Column (b). For applications pertaining to *multiple* programs where *none* of the programs *require* a breakdown by function or activity, enter the catalog program title on each line in Column (a) and the respective catalog number on each line in Column (b).

For applications pertaining to *multiple* programs where one or more programs *require* a breakdown by function or activity, prepare a separate sheet for each program requiring the breakdown. Additional sheets should be used when one form does not provide adequate space for all breakdown of data required. However, when more than one sheet is used, the first page should provide the summary totals by programs.

Lines 1-4, Columns (c) through (g).

For new applications, leave Columns (c) and (d) blank. For each line entry in Columns (a) and (b), enter in Columns (e), (f), and (g) the appropriate amounts of funds needed to support the project for the first funding period (usually a year).

For continuing grant program applications, submit these forms before the end of each funding period as required by the grantor agency. Enter in Columns (c) and (d) the estimated amounts of funds which will remain unobligated at the end of the grant funding period only if the Federal grantor agency instructions provide for this. Otherwise, leave these columns blank. Enter in Columns (e) and (f) the amounts of funds needed for the upcoming period. The amount(s) in Column (g) should be the sum of amounts in Columns (e) and (f).

For supplemental grants and changes to existing grants, do not use Columns (c) and (d). Enter in Column (e) the amount of the increase or decrease of Federal funds and enter in Column (f) the amount of the increase or decrease of non-Federal funds. In Column (g) enter the new total budgeted amount (Federal and non-Federal) which includes the total previous authorized budgeted amounts plus or minus, as appropriate, the amounts shown in Columns (e) and (f). The amount(s) in Column (g) should *not* equal the sum of amounts in Columns (e) and (f).

Line 5—Show the totals for all columns used.

Section B. Schedule A—Budget Categories

In the column headings (1) through (4), enter the titles of the same programs, functions, and activities shown on Lines 1-4, Column (a), Section A. When additional sheets were prepared for Section A, provide similar column headings on each sheet. For each program, function or activity, fill in the total requirements for funds (both Federal and non-Federal) by object class categories.

Lines 6a-h—Show the estimated amount for each direct cost budget *(object class)* category for each column with program, function or activity heading.

Line 6i—Show the totals of Lines 6a to 6h in each column.

Line 6j—Show the amount of indirect cost. Refer to Office of Management and Budget Circular No. A-87.

Line 6k—Enter the total of amounts of Lines 6i and 6j. For all applications for new grants and continuation grants the total amount in Column (5), Line 6k, should be the same as the total amount shown in Section A, Column (g), Line 5. For supplemental grants and changes to grants, the total amount of the increase or decrease as shown in Columns (1)-(4), Line 6k should be the same as the sum of the amounts in Section A, Columns (e) and (f) on Line 5. When additional sheets were prepared, the last two sentences apply only to the first page with summary totals.

Line 7—Enter the estimated amount of income, if any, expected to be generated from this project. Do not add or subtract this amount from the total project amount. Show under the program narrative statement the nature and source of income. The estimated amount of program income may be considered by the Federal grantor agency in determining the total amount of the grant.

INSTRUCTIONS

PART III
(Continued)

Section B. Schedule B—Budget Categories

Lines 6a-h—For each program element fill in the total requirements for funds *(Federal, non-Federal, and total)* and manyears.

Line i—Show the totals of Lines 6a through h in each column.

Line j—Show the State totals. Total *(Program Elements)* and State total might not be equal due to expenses which are not classified under specific program elements.

Section C. Source of Non-Federal Resources

Lines 8-11—Enter amounts of non-Federal resources that will be used on the grant. If in-kind contributions are included, provide a brief explanation on a separate sheet. (See Attachment F, FMC 74-7.)

Column (a)—Enter the program titles identical to Column (a), Section A. A breakdown by function or activity is not necessary.

Column (b)—Enter the amount of cash and in-kind contributions to be made by the applicant as shown in Section A. (See also Attachment F, FMC 74-7.)

Column (c)—Enter the State contribution if the applicant is *not* a State or State agency. Applicants which are a State or State agencies should leave this column blank.

Column (d)—Enter the amount of cash and in-kind contributions to be made from all other sources.

Column (e)—Enter totals of Columns (b), (c), and (d).

Line 12—Enter the total for each of Columns (b)-(e). The amount in Column (e) should be equal to the amount on Line 5, Column (f), Section A.

Section D. Forecasted Cash Needs

Line 13—Enter the amount of cash needed by quarter from the grantor agency during the first year.

Line 14—Enter the amount of cash from all other sources needed by quarter during the first year.

Line 15—Enter the totals of amounts on Lines 13 and 14.

Section E. Budget Estimates of Federal Funds Needed for Balance of the Project

Lines 16-19—Enter in Column (a) the same grant program titles shown in Column (a), Section A. A breakdown by function or activity is not necessary. For new applications and continuing grant applications, enter in the proper columns amounts of Federal funds which will be needed to complete the program or project over the succeeding funding periods *(usually in years)*. This Section need not be completed for amendments, changes or supplements to funds for the current year of existing grants.

If more than four lines are needed to list the program titles submit additional schedules as necessary.

Line 20—Enter the total for each of the Columns (b)-(e). When additional schedules are prepared for this Section, annotate accordingly and show the overall totals on this line.

Section F. Other Budget Information

Line 21—Use this space to explain amounts for individual direct object cost categories that may appear to be out of the ordinary or to explain the details as required by the Federal grantor agency.

Line 22—Enter the type of indirect rate *(provisional, predetermined, final or fixed)* that will be in effect during the funding period, the estimated amount of the base to which the rate is applied, and the total indirect expense.

Line 23—Provide any other explanations required herein or any other comments deemed necessary.

PART IV - NARRATIVE STATEMENT

Interstate Strategy

The Delaware River Basin Compact (PL 87-328) confers broad powers and responsibilities for water quality management and water pollution control upon the Delaware River Basin Commission. It is Commission policy that all its programs be carried out in cooperation with the concurrent programs of the Basin states and the Federal government. The Commission's water quality program is consistent with this policy and takes account of related Commission, Federal and state programs. The Commission's program is designed to assist and support the Basin states in carrying out their mandated responsibilities under the Clean Water Act, Safe Drinking Water Act, and the Resources Conservation and Recovery Act, and is consistent with EPA policy for interstate agency water quality programs as set forth in SAM-24.

The parties signatory to the Delaware River Basin Compact (Delaware, New Jersey, New York, Pennsylvania and the United States) have pledged to abide by policies adopted by the Delaware River Basin Commission (DRBC) and included within its Comprehensive Plan. The Comprehensive Plan now includes water quality standards for all surface and ground waters of the Basin. Thus, the Commission is fulfilling the "consistency doctrine" advocated by the Federal Government.

Water quality in the Delaware River Basin varies from excellent to poor. In terms of stream miles, ninety percent may be considered as excellent in quality. In other reaches, degraded water quality conditions are due to pollution problems varying in magnitude from local to complex inter-watershed, inter-jurisdictional and interstate problems.

The major emphasis of the Commission's program will be on interstate aspects, particularly the interstate main stem of the Delaware River from the confluence of the East and West Branches at Hancock, N.Y., to the mouth of Delaware Bay between Cape May, N.J. and Cape

Henlopen, Delaware. The only significant reach of the main stem of the Delaware River with degraded water quality is in a major portion of the tidal Delaware River Estuary, where inadequately treated waste discharges have resulted in water quality standards not being met for significant periods of time. Elsewhere on the main stem Delaware River, water quality generally ranges from good to excellent. A description of the current water quality of the main stem Delaware River is given in the DRBC report entitled "Water Quality of the Delaware River 1980, A Status Report."

The Delaware River Basin Commission has developed a program to preserve the quality of Basin waters where they are excellent, and to restore and thereafter maintain lesser quality water as necessary to meet or exceed the water quality criteria required to protect the designated water uses.

The program calls for the greatest efforts in areas where inadequately treated waste discharges have resulted in degraded stream quality, and development, implementation, and updating of plans and programs to upgrade waste treatment and improve stream quality . The next priority is those areas where current quality is excellent but where projected changes in land and water use may degrade water quality unless preventive measures are taken.

The program requires that all wastes receive at least secondary treatment. When this level of treatment is inadequate to maintain water quality standards, the capacity of the receiving stream to assimilate waste discharges is allocated among the waste discharges.

In the Delaware River Estuary where water quality standards are not always being met, a remedial wasteload allocation program has been undertaken under the leadership of the Commission, in cooperation with the Federal Government and Estuary states.

The Delaware River Basin Commission has assumed the central role in the development of an improved water quality model of the Delaware

River Estuary to meet the needs of water quality management planning under PL 92-500. The Commission will develop and implement revised waste load allocations to meet planning needs for the Delaware River Estuary. Two separate studies, funded under a supplemental Section 106 grant, are required relative to improving Estuary water quality models. One study calls for preparation of the documentation report for the two-dimensional model and under the other study the model will be calibrated and verified for storm conditions using revised urban storm load estimates. Upon completion of these studies, the Commission will assume the responsibility for maintaining and operating the model and implementing the revised waste load allocations.

In the remaining segments of the Delaware River, efforts will be at various levels of intensity appropriate to the priority of present or potential pollution and water quality management problems.

This water quality program will be integrated with several special, separately funded Commission studies. These include a Level B study for comprehensive water resources management in the Delaware River Basin which has just been completed, a study of exotic industrial residuals, and a Basinwide study of groundwater resources.

An important part of this interstate strategy is to assure adequate public participation through an effective information program as well as by providing appropriate opportunity for public input to the content of the program.

In fulfillment of the water quality grant under Section 106 of PL 92-500, the Commission program is allocated between Water Quality Management Planning, Water Quality Monitoring as required to reflect compliance with water quality criteria, and Compliance Activities to achieve consistency with Federal and State planning objectives included in the Commission's Comprehensive Plan.

A. Water Quality Management Planning

Under current laws, many public agencies at varying levels of government - local, county, regional, state, interstate, and Federal - have responsibilities of one kind or another for water quality management planning. Consistent with SAM-24, the Delaware River Basin Commission has specific planning responsibilities in this context, such as wasteload allocations for the Delaware River. The Delaware River Basin Compact authorizes the Commission to integrate all planning for water quality management and pollution abatement and control in the Delaware River Basin into the Commission's Comprehensive Plan for water resources management in the Basin. Also, State/EPA Agreements will be used where appropriate as a mechanism to assist the Basin states in certain areas of water quality management planning upon their request.

*Existing Water Quality Models and Allocations

The Commission has the responsibility for maintaining and keeping operational a number of existing mathematical models of the water quality of the Delaware River. The steady-state model of quality of the Delaware River Estuary will be kept operational and used for updating waste load allocations in the Estuary until it is supplanted by a more sophisticated time-varying model.

The Commission's time-varying water quality model of the Delaware River from Trenton to above the Delaware Water Gap will be utilized as appropriate.

A model of the water temperature of the Delaware Estuary, which can be utilized to determine the capacity of the Estuary to assimilate waste heat, will be operated as required.

Development of a mathematical deterministic salinity intrusion model of the Delaware Estuary, including the entire tidal Delaware River and Delaware Bay, has been completed. The model relates chloride concentrations at specific locations along the Estuary to fresh-water inflows from the Delaware River at Trenton and seaward tributaries. In fiscal 1979, 1980 and 1981 extensive Commission staff efforts were devoted to use of the salinity model to determine the effects of various reservoir operation schemes, out-of-basin water diversions, and projected consumptive water use on the levels of salinity, chlorinity, and sodium in water supplies taken from the tidal waterway, either directly as surface water, or indirectly from aquifers that are recharged in part by the tidal river. These studies were carried out to provide input to the Level B, Study to the "good-faith negotiations" among the parties to the 1954 decree of the U.S. Supreme Court, and to assist in making decisions for management of dwindling reservoir storage volumes during the 1980-81 drought

emergency. Additional studies will be made with the model to provide inputs to the comprehensive study of salinity, including an investigation of the economic impacts of potential salinity changes and the effects of rising sea level being conducted by the U.S. Army Corps of Engineers, Philadelphia District.

The Commission staff's knowledge and experience in stream mathematical modeling techniques is available to Basin agencies and others that wish to conduct modeling studies. Existing water quality models will be kept operational by the Commission, and will be made available to State and Federal agencies.

Work Output

1. The Commission will continue to allocate the waste assimilative capacity of the Delaware Estuary among parties discharging or wishing to discharge to the Estuary, as required.
2. The Commission will continue to utilize the salinity model to assess the impact of proposed changes in water resources management programs and to provide input to the Corps of Engineers comprehensive salinity studies.

Resource Requirements

A total of $40,660 ($17,016 Federal and $23,644 non-Federal) is estimated to be required for this activity, including $34,660 for three quarters staff-year personnel and indirect charges, $1,000 for travel, and $5,000 for computer and related services.

* Development of New Estuary Allocations

An improved mathematical water quality model of the Delaware River Estuary has been developed to meet the needs for areawide water quality management planning under Section 208 of PL 92-500. The model has been calibrated and verified for low-flow conditions. Revision of loadings under urban storm conditions by the Delaware Valley Regional Planning Commission (DVRPC) has been completed. The Delaware River Basin Commission engaged a consultant who calibrated and verified the one dimensional version of the model for storm conditions. The Commission is now using the model to develop waste load allocations for the Delaware River Estuary, including gross allotments for point and non-point sources of pollution and point source allocations. The program includes determination and apportionment of total maximum daily loads between point and non-point sources, and allocation of the point source total maximum daily load among the individual point sources.

As described below, the Commission is using the model to test low-flow conditions. With completion of calibration of the model for storm conditions the Commission will shortly begin to use it to model thunderstorm effects and frontal storm effects in order to determine critical conditions for total maximum daily loads.

Test Low-Flow Conditions: - Attachment 4A1 is a list of the model runs made to date; nearly all were directed to testing low-flow conditions. These included runs to assess the impact of several sets of river flows, different nitrification rates and sediment oxygen demand (SOD) rates. Several runs were made comparing conditions observed in 1980 with model projections. As a result adjustments were made in selected model coefficients. The above work indicated that more information on actual SOD rates is needed. (See page 30 for activities related to this problem.)

Determine Total Maximum Daily Loads Under Low-Flow Conditions: - Results of the above low-flow water quality simulation runs, and additional model runs, as necessary, are being used to determine the permissible daily loads under low-flow conditions under each of three assumptions: (1) achievement of current water quality standards; (2) achievement of a minimum daily average dissolved oxygen concentration of 4.0 mg/1 and (3) achievement of a minimum dissolved oxygen concentration of 4.0 mg/1 These runs are being made using river flow conditions recommended in the recently completed Level B Study.

Calibration and Verification of Model Under Storm Conditions: - Estimates of Estuary loadings from urban storm runoff were made for Bristol, Trenton, Camden, Burlington, Gloucester, Chester, Wilmington, and Philadelphia by DVRPC for each of 4 thunderstorm conditions.

The one dimensional model has been calibrated and verified for storm conditions using the urban storm load estimates and the data from four storms sampled during the Estuary storm survey. The Commission has carried out this work, assisted by consultants.

With completion of these efforts, the work described below is now underway. It is estimated that as of October 1, 1981, a total of $63,700 will be available from supplements to the 106 grants for Fiscal 1978 and Fiscal 1980 for contractual costs to be incurred in the use of the model. These funds were carried over from a $53,000 Fiscal 1978 supplement and a $16,400 Fiscal 1980 supplement. The Fiscal 1978 supplemental funds had not been expended previously due to delays in determination of urban storm loads and in completion of model calibration and verification. The $16,400 Fiscal 1980 supplement was primarily to defray escalation of contractual costs due to inflation. Based on recently received consultant proposals, additional funds will be needed for contractual costs. A firm estimate of costs must await completion of contract negotiations.

Test Thunderstorm Conditions; - As assessment will be made of the impact of up to four different thunderstorm events which follow the low-flow period. Modelled will be the individual impact of thunderstorms with recurrence intervals of 1 in 2 months, 1 in 1 year, 1 in 2 years, and 1 in 5 years in the Trenton, Philadelphia, Camden, Wilmington, Bristol, Chester and Burlington areas. Each area will be modelled separately, if possible.

Test Frontal Storm Conditions: - An assessment will be made of the water quality impacts from Basinwide frontal rain storms. Frontal storm model runs will be for the months of September and October following the low-flow period.

Determine Total Maximum Daily Loads; - The impact of thunderstorm and frontal storm conditions and the results of the total maximum daily loads determined under low-flow conditions will be assessed. Additional model runs will be made as necessary to define the most critical conditions. Total maximum daily loads will be determined, taking account of storm and dry-weather conditions. It is anticipated that these efforts will be completed in Fiscal 1982.

Determine Apportionment Between Point Source and Non-point Source Loads: - To determine the gross allotments between point and non-point sources of pollutants and allocations for point sources of pollutants, the following steps will be required:

1. Allocation Methodology: - Development and analysis of alternative allocation methodologies will be continued. One or more allocation methodologies will be selected for use in determination of final individual point source allocations.

2. Estimates of Abatement Program Load Reductions and Costs; - The apportionment requires the following data which are not yet available;

(1) Point source abatement costs;

(2) Non-point source abatement programs and resulting load reductions;

(3) Non-point source abatement programs costs;

(4) Projections of changes in generation of point and non-point source loads.

The Commission is developing and will implement a strategy for providing these data. Development of the strategy is being undertaken in recognition of the fact that it is not possible to derive these data from the results of the 208 studies completed to date. The strategy will take into account current and planned studies by 208 agencies on the identification, effectiveness, and costs of best management practices for non-point pollution sources. The strategy will include recommended procedures for accounting for the potential but as yet unknown impact of BAT for industrial point sources.

3. Gross Allotments and Point Source Allocations - Tentative sets of gross allotments between point and non-point sources, and point source waste load allocations will be developed based on the above efforts.

4. Public Hearings - Preparations will be initiated to subject these tentative sets of allotments and allocations to public hearings as soon as possible.

5. Implementation of Allocations - Studies will be initiated to consider the need for amendments to the Commission's water quality regulations to implement revised point source waste load allocations.

6. Implementation of Non-point Source Abatement Measures - Studies will be initiated to consider the arrangements necessary to implement non-point source abatement measures, including the need for amendments to the Commission's water quality regulations.

Work Output

1. Total maximum daily loads taking account of storm and dry-weather conditions,
2. Estimates of abatement program load reductions and costs,
3. Tentative sets of gross allotments between point and non-point sources;
4. Tentative sets of point source load allocations for the next round of NPDES permits.

Resource Requirements

A total of $249,560 has been identified for this activity to date, $63,700 remaining from supplements to the Fiscal 1978 and Fiscal 1980 grants, and $185,860 included under this grant application. The funds will be expended as indicated in the table below. It is anticipated that additional funds will be needed for contractual costs.

	FY78 and FY80 Supplemental Grants(1)	FY82 Regular Grant Application	Total
Personnel		$ 94,800(2)	$ 94,800
Travel		$ 1,000	$ 1,000
Contractual	$ 63,700		$ 63,700
Total Direct	$ 63,700	$ 95,800	$159,500
Indirect		$ 90,060	$ 90,060
Total	$ 63,700	$185,860	$249,560
Sub-Total-Federal	$ 63,700	$ 77,780	$141,480
Non-Federal		$108,080	$108,080
Total	$ 63,700	$185,860	$249,560

(1) Projected funds remaining as of September 30, 1981.

(2) 4 Staff years.

Future Use of Models: - The Delaware River Basin Commission will assume the responsibility for maintaining and operating the improved Estuary water quality model, and will make it available to State and Federal agencies. The need for additional Section 106 funds to support this activity in future years must be a consideration. It is anticipated that future use of the models will be related increasingly to support of enforcement and implementation activities. EPA and the states will continue to look to the Commission for that support.

* Water Quality Standards

As part of its responsibility for total water resources management within the framework of its Comprehensive Plan, as mandated by the Compact, the Commission will continue to review and, as necessary, modify its water quality standards, both surface and underground, in its Comprehensive Plan.

The Commission will carry out its responsibilities for coordination in interstate standards setting, consistent with SAM24. As part of the triennial review of standards required by PL 92-500, the Commission will continue to review state proposals for water quality standards amendments for the main stem Delaware River. The need for specific standards for toxic substances will be included in these considerations. By working with its Water Quality Advisory Committee, the Commission will assist the states in assuring that uniform and consistent standards amendments are adopted for the Delaware River. The Commission will hold a "clean-up" public hearing to consider amendments to its Comprehensive Plan to include the proposed standards amendments. After review of the public hearing record and consultation with the Water Quality Advisory Committee, the Commission will adopt appropriate amendments.

In fiscal 1980 the Commission adopted effluent requirements and repealed effluent guidelines for suspended solids, and repealed the now obsolete INCODEL standards. In fiscal 1980 and early fiscal 1981 hearings were held on proposals to adopt effluent requirements and repeal effluent guidelines for oil and grease, and to repeal stream criteria for radioactivity.

Studies will be initiated, as appropriate, to consider the possible need for changes in water quality standards arising out of studies of new estuary allocations.

In late fiscal 1981 or early fiscal 1982 hearings will be held to consider changes to water quality criteria in the Delaware Estuary for salinity-related parameters, based on the recommendations of the Level B study.

In early fiscal 1982 the Commission will consider modifications to Delaware River bacterial criteria and disinfection requirements to permit change from year-round to seasonal disinfection of waste discharges where it can be demonstrated that water uses will be protected.

Work Output

1. The Commission will continue to review and comment on state proposals for amending Delaware River water quality standards. The Commission will hold a "clean-up" public hearing to consider final amendments for this triennial review. Appropriate amendments will be adopted.

2. Other modifications to the Commission's water quality standards will be considered, as necessary or appropriate, including further upgrading of guidelines to standards.

3. Proposed revisions to State standards will be reviewed to assure consistency with the Commission's Comprehensive Plan.

Resource Requirements

A total of $47,215 ($19,759 Federal and $27,456 non-Federal) is estimated to be required for this activity, including $46,215 for one staff-year personnel and indirect charges and $1,000 for travel.

B. Water Quality Monitoring

* Estuary Program

The Commission will continue its cooperative sampling and monitoring program for the Delaware Estuary and Bay with the three Estuary States. Under a Commission contract with the State of Delaware (boat runs), water samples will be collected at selected locations in the Delaware River and Bay and analyzed. Consistent with SAM-24, the data obtained by this contract meets the needs of Delaware, New Jersey, and Pennsylvania for monitoring of the quality of the water column of the Delaware Estuary. Through the terms of three additional Commission contracts, one each with the States of Delaware, New Jersey, and Pennsylvania, tributaries and waste discharges to the Delaware Estuary will be sampled and analyzed.

The boat run contract will provide for samples to be taken at seventeen locations in the almost 100-mile reach extending from a point opposite the mouth of the Mahon River in Delaware Bay to the Delaware River at Fieldsboro, New Jersey. Samples will be collected twice monthly during the months of March to October and twice during the remainder of the year. The additional contracts with the Estuary States specify sampling of tributaries at eleven locations. Analyses of River and tributary samples will be made to determine their physical, mineral, and bacteriological characteristics. Analyses for pesticides will be conducted once during the year. Data collected in this program will be entered into the STORET system. These data will be used in the preparation of a 305(b) report for the main stem Delaware River (see p.35).

In response to needs expressed by EPA, the boat run program was modified to provide data on the variability of dissolved oxygen with position in the river cross-section in the most critical reach of the Estuary. This work will be accomplished in the summer of 1981.

The boat run program was also modified to provide additional data on actual sediment oxygen demand (SOD) rates (see page 21). During the summer of 1981 SOD will be measured at twelve locations using a benthic respirometer provided by EPA's Annapolis Field Office.

The Commission has assumed responsibility for developing a single overall National Ambient Water Monitoring Program for the Delaware River, which takes best advantage of related Commission programs and the programs and capabilities of the Basin states. The Program calls for routine water quality analyses monthly and collection and analysis of fish tissue for toxic organics annually at selected locations. Based on the advice of the Commission's Water Quality Advisory Committee five stations in the Delaware Estuary have been included in the Program. Routine monthly water quality analyses for the Program were begun in May of 1979 under the boat run contract described above. Monitoring of fish tissue for organics will be accomplished with state resources - data at two of the stations will be collected by Delaware and data at the other three stations will be collected by New Jersey. Delaware has completed collection of the first set of samples and New Jersey initiated this work in Fiscal 1981.

Through the Commission contracts with the States of Delaware, New Jersey and Pennsylvania for sampling of tributaries and waste discharges in the Delaware River Estuary area, an average of 75 samples per month will be taken selectively from the approximately 100 municipal and

industrial facilities located along the Delaware Estuary. Raw wastes, treated effluents, cooling water and other discharges will be sampled. Waste volumes will be measured and recorded. Samples will be analyzed to determine the physical, mineral, and bacteriological characteristics of raw and treated wastes. Special attention will be given to nitrogen, oxygen demand and metals. Those discharges having the greatest impact on the receiving stream will be given the highest priority and frequency of sampling. This program also assists the Estuary states in meeting their needs for waste discharge compliance monitoring and provides a check on self-monitoring reports under NPDES.

Work Output

1. Collection and analyses of samples as described above;
2. Entry of data into the STORET system;
3. The National Ambient Monitoring Program for the Delaware River will continue to be developed and implemented.

Resource Requirements

A total of $256,170 ($50,708 Federal and $205,462 non-Federal) is estimated to be required for this activity, $199,500 contractual, $55,670 for one and a quarter staff-years personnel and indirect charges, and $1,000 for travel. Also required are adequate resources for use of STORET. EPA ADP funds will be requested by DRBC for use of STORET.

* Upper Basin Water Quality

The waters of the upper Delaware River Basin are vital to the farms, industries, and recreational use of that area, as a source of supplies of water for the New York metropolitan area, and equally important, as the source of the waters of the lower Delaware River. These demands on the water resources of the upper Basin require careful management of quantity and quality. The following activities are intended to provide data and information necessary for that management:

The Commission has conducted an annual limnological survey of the Upper Delaware River and selected tributaries since 1969. The program has been modified from time-to-time in response to changing needs and concerns. The data obtained have been used to define background conditions prior to proposed construction of major multi-purpose reservoirs and prior to major changes in reservoir operations, to assess the impact of the modified New York City reservoir release program, and in the preparation of the 305(b) report for the Delaware River.

For the 1980 survey, a principal focus was on the primary productivity of the river system. The survey was designed with the knowledge that total phosphorous concentrations in the Delaware River appear to have declined since 1970. The data provided information to assess the trophic condition of the Delaware River and the relative contribution to the river ecosystem of planktonic and nonplanktonic organisms. Data were collected at ten locations in the Delaware River between Hancock, New York and Trenton, New Jersey. At each location measurements of dissolved oxygen, pH, and temperature were made hourly at two to four positions in the river cross-section over a 24 hour period. Changes in dissolved oxygen levels were measured over an eight

hour period in light and dark bottles at three depths at each location. Data on macroinvertebrates were obtained by surber sampling at a total of 16 locations on the Delaware River between Hancock, New York and Montague, New Jersey, the East Branch and West Branch Delaware River, and the Neversink River. Analyses of river water were made for nitrite, nitrate, total phosphorous, pH, water temperature and dissolved oxygen. In fiscal 1981 the results obtained in the 1980 summer survey were analyzed and reported on. These data were also used in the preparation of a brief summary of 1980 main stem Delaware River water quality conditions.

A survey has been designed to be conducted in the summer of 1981. Major emphasis is given to assessing the water quality of the Scenic River area from Hancock to Port Jervis, with particular attention to the impact of recreational uses on water quality. Data on macroinvertebrates will also be collected to provide information on the impact of reservoir releases on stream biota. Water temperature, dissolved oxygen, pH, ammonia, nitrate, phosphate, turbidity, and fecal coliform levels will be measured. Both 1980 and 1981 data will be used in the preparation of a full 305(b) report for the Delaware River in fiscal 1982 (see p. 35).

Under separate funding (Level B), the Commission participated in the investigation of point vs. non-point pollution above Cannonsville Reservoir in coordination with 208 planning. This work was carried out under an agreement with the Soil Conservation Service. Farm management practices have been identified which appear both to be acceptable to landowners and to show promise in mitigating water quality problems. The results of this study are being utilized in the Model Implementation Program (MIP) of EPA and the Soil Conservation Service. These studies

are expected to assist in quantifying non-point contributions from soil and stream beds and to provide guidance to the Commission as well as to other agencies in effective regulation of non-point sources.

Work Output

1. A report on review and analysis of data obtained in the 1981 annual limnological survey will be prepared.
2. A limnological survey will be designed to be conducted in the summer of 1982.

Resource Requirements

A total of $48,215 ($20,177 Federal and $28,038 non-Federal) is estimated as necessary for this activity, including $46,215 for one staff-year personnel and indirect charges and $2,000 for travel.

*305(b)

Consistent with SAM-24, the States look to the Commission to satisfy the requirement of Section 305(b) of PL 92-500 for the Delaware River. The Commission's 305(b) reports for the Delaware River include a discussion of existing water quality, comparison with stamdards. and an assessmemt of water quality problems from point and non-point sources, which the Basin States use in preparing their own 305(b) reports. With the passage of PL 95-217, 305(b) reports are required every other year and the next report is due in Fiscal 1982.

Work Output

The Commission will prepare a full 305(b) report for the Delaware River.

Resource Requirements

A total of $46,715 ($19,550 Federal and $27,165 non-Federal) is estimated to be required for this activity, $46,215 for one man-year personnel and indirect charges, and $500. travel, plus adequate resources for use of STORET.

C. Compliance Activities

Review of NPDES permits for discharges to Basin waters is a necessary part of Commission activities, especially with regard to allocations and Commission standards. Primary emphasis will be on discharges to interstate streams, particularly those discharges to the Delaware River having wasteload allocations, and other discharges with major impact on the Basin's waters. Assistance will be provided to EPA as necessary, and the Commission will participate in hearings and negotiations in those adjudicatory hearing cases to which it is a party. The objective is to ensure that the Commission's wasteload allocations and its regulations are implemented through the permit process.

The Commission enforcement program will continue to consist principally of staff technical support of state and EPA actions undertaken at the request of the Commission.

For Estuary allocation cases, the Commission has arranged to receive copies of Discharge Monitoring Reports which holders of NPDES permits must submit to EPA. These reports will be analyzed to assess the status of compliance and the residual waste discharge loading of the Delaware River Estuary.

D. Other Water Quality Management Activities

* Review of Projects

The Commission reviews public and private water pollution control projects under Section 3.8 of the Compact, in accordance with the Commission's Rules of Practice and Procedure. The number of projects to be brought before the Commission during fiscal 1982 is estimated to be 100, including approximately 60 water pollution control projects.

* Technical Services

Conferences will be held with public and private entities to provide guidance and assistance in the development and operation of programs to meet the requirements of the Commission's water quality regulations. Similar conferences and consultations will be held regarding projects submitted for review under Section 3.8 of the Compact, as well as with municipal, local, county, regional, state, and Federal government agencies regarding projects under consideration for incorporation into the Comprehensive Plan. In addition, numerous inquiries from private and public agencies regarding water quality in the Basin will be received and answered. These involve special field and office studies and include staff preparation of replies to correspondence received from the general public and other concerned parties. Staff also prepares or assists in the preparation of papers for publication in the professional journals.

* Interstate Coordination

Administrative agreements are in effect with state agencies to facilitate review of projects under Section 3.8 and consultative planning under Article 11 of the Delaware River Basin Compact.

The Commission's Water Quality Advisory Committee consists of one member appointed by each Commissioner from the water pollution control agency of that signatory party. The Committee will meet with Commission staff at two or three month intervals to provide technical and policy advice on matters concerned with water quality management, such as water quality standards, regulations, surveillance, enforcement, etc. This Committee also provides a forum for the agencies represented to discuss problems of mutual interest.

The Commission's Executive Director is a member of the New Jersey Clean Water Council, which serves in an advisory capacity to the Governor of the State of New Jersey.

The Commission participates in monthly meetings of the Federal Field Committee consisting of representatives of all Federal agencies with water resources responsibilities or interests in the Delaware River Basin.

* Public Participation

The operations of the Commission require effective public participation. The Commission maintains a broad information program by means of meetings, hearings, published reports and papers, lectures and news media contacts. The Commission holds frequent public hearings and public meetings (generally monthly). Commission staff also maintains public exposure through addresses to professional, civic, and other groups, as well as media contacts and interviews. Ten thousand copies of the Commission's annual report will be distributed to all segments of the Basin community, and nationwide. A list of publications which the Commission has available for distribution will be furnished on request.

The Commission will participate in a public meeting on the New Jersey State EPA Agreement to be held in Vineland on the evening of September 15. A brief presentation of the Commission water quality program described in this application will be made. Copies of this application will be available for public review in repositories in New Jersey, beginning in mid-August.

The preliminary draft of this application will be made available for public review and comment and copies will be furnished to interested parties upon request. Availability of the preliminary draft will be widely advertised. The Commission has a mailing list of over 3000, encompassing federal, state, regional, county and local governmental agencies, civic organizations, industries, individuals and news media. Comments received will be reviewed and appropriate responses made. The final application will be available for inspection at the Commission offices. Copies will be furnished to interested parties on request.

Notices of major actions under consideration by the Commission, such as public hearings on proposed amendments to water quality standards, are sent to the same mailing list.

* U.S. Water Resources Council

Under funding from the Water Resources Council, the Commission completed the Level B (Section 209 of PL 92-500) study of the Delaware River Basin. Study outputs, where appropriate, are being considered for inclusion in the Comprehensive Plan. The inter-linkages of Level B study outputs to water quality management programs are being considered, where appropriate.

Under funding from the Water Resource Council, the Commission is conducting a three-year study to develop a ground-water management plan and implementation program for the Basin. The prime objectives of the study are to provide the Commission with (1) a sound basis for planning and allocating the ground-water resources and (2) specific guidelines and criteria for the evaluation of proposed ground-water developments and preventing conflicts before they arise. Study outputs, where appropriate, will be considered for inclusion in the Comprehensive Plan. Ground-water quality aspects are being considered.

* Regionalization

The Commission will continue to implement its regionalization policy within the context of the planning requirements of its Compact and other federal laws. The recommendations of 208 plans will be considered in revising regional policy. The Commission is participating on a planning team chaired by the National Park Service (NPS) to develop a management plan for the Upper Delaware Scenic and Recreation River Segment (the Delaware River between Hancock and just above Port Jervis). The team and the NPS are looking to the Commission for development and implementation of the interstate water quality aspects of the plan. Commission staff is represented on the review committee of the U.S.G.S. water quality assessment study of the Schuylkill River.

* Hazardous Waste Study

Under separate funding, including supplemental Section 106 grants, the Commission is carrying out a study of hazardous waste residuals. The study area encompasses the Delaware River Basin plus the entire State of New Jersey. The first phase, directed to compilation and assessment of an inventory of industrial residuals, disposal operations and capabilities, has been completed. The second phase is underway and is directed to development of siting criteria, institutional alternatives, and a facilities plan for recycling, reclamation, treatment, and final disposal of hazardous waste residuals. The program is being expanded to include the entire State of Delaware to screen areas which are acceptable from those which are unacceptable, but will not include detailed site investigations.

* USGS Monitoring Programs

The Commission will continue to provide financial support to the U.S. Geological Survey for water quality monitoring. This includes a monitor which automatically records conductivity, temperature, dissolved oxygen and pH on the Lehigh River at Easton, Pennsylvania. The Commission will, using external sources of funds, provide financial support of the water quality monitors on the Delaware River at Reedy Island and Delaware Bay at Ship Johns Light.

Under the leadership of the Commission a program has been developed to assure operation of a series of USGS fixed automatic water quality monitors in the Delaware Estuary. The program calls for the Commission to maintain a "funding pool" consisting of contributions from local, state, interstate and federal agencies to support the operation of monitors at Pier 11 and Ft. Mifflin in Philadelphia and at Chester, Pennsylvania. An application has been submitted to EPA for a supplemental grant which includes the sum of $3,000 to be used as EPA's contribution to the "funding pool".

The agencies contributing to the "pool" expressed strong interest in:

(1) early dissemination of the data obtained in the program, and

(2) analysis and interpretation of the data.

It is proposed to prepare a report compiling all the data obtained at the estuary monitors in calendar year 1981 and presenting an analysis of the data to (1) assess the nature of diurnal variations of the parameters measured, (2) correlate the data obtained at the fixed monitors with similar data obtained by periodic surveys of the river by boat and (3) evaluate long-term trends. It is anticipated that these analyses and interpretations will provide the basis for adjustments in the fixed monitoring station network. Supplemental Section 106 grant funds ($7,000) have been requested to support this activity.

* 208 Planning

Commission staff participated in thirteen Section 208 studies for designated and non-designated areas in the Basin, including policy and technical advisory committees, as well as related regional and state studies. Consistent with SAM-24, the Commission emphasized Basinwide and interstate concerns related to control of pollution from both point and non-point sources and to the need to assure compatibility among 208 plans, and with the Commission's Comprehensive Plan. The Commission staff prepared reports on completed 208 studies for each state to use in considering action on certification of each 208 plan. The Commission serves on committees having continuing planning responsibilities to carry out the continuing planning process developed as a part of 208 plans.

Budget Summary

	Federal	Non-Federal	Total
A. Water Quality Management Planning			
Existing Models and Allocations	$ 17,016	$ 23,644	$ 40,660
Development of New Estuary Allocations			
FY82 Regular Grant Application	77,780	108,080	185,860
*Carry-over	63,700*		63,700*
Water Quality Standards	19,759	27,456	47,215
Subtotals	$114,555	$159,180	$273,735
B. Water Quality Monitoring			
Estuary Program	50,708	205,462	256,170
Upper Basin Water Quality	20,177	28,038	48,215
305(b) Report	19,550	27,165	46,715
Subtotals	$ 90,435	$260,665	$351,100
C. Compliance Activities	14,922	20,738	35,660
D. Other Water Quality Management Activities	10,088	14,017	24,105
Totals	$230,000	$454,600	$684,600

*Not included in totals
funds remaining from $53,000 FY78 and $16,400 FY80 supplements

PART V
ASSURANCES

The Applicant hereby agrees and certifies that he will comply with the regulations, policies, guidelines, and requirements including OMB Circular No. A-95, A-102 and FMC 74-4, as they relate to the application, acceptance and use of Federal funds for this Federally assisted project. Also the Applicant agrees and certifies with respect to the grant that:

1. It possesses legal authority to apply for the grant; that a resolution, motion or similar action has been duly adopted or passed as an official act of the applicant's governing body, authorizing the filing of the application, including all understandings and assurances contained therein, and directing and authorizing the person identified as the official representative of the applicant to act in connection with the application and to provide such additional information as may be required.

2. It will comply with Title VI of the Civil Rights Act of 1964 (P.L. 88-352) and in accordance with Title VI of that Act, no person in the United States shall, on the ground of race, color, or nation origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the applicant receives Federal financial assistance and will immediately take any measures necessary to effectuate this agreement.

3. It will comply with Title VI of the Civil Rights Act of 1964 (42 USC 2000d) prohibiting employment discrimination where (1) the primary source of a grant is to provide employment or (2) discriminatory employment practices will result in unequal treatment of persons who are or should be benefiting from the grant-aided activity.

4. It will comply with requirements of the provisions of the Uniform Relocation Assistance and Real Property Acquisitions Act of 1970 (P.L. 91-646) which provides for fair and equitable treatment of persons displaced as a result of Federal and federally assisted programs.

5. It will comply with the provisions of the Hatch Act which limit the political activity of employees.

6. It will comply with the minimum wage and maximum hours provisions of the Federal Fair Labor Standards Act, as they apply to employees of institutions of higher education, hospitals, other non-profit organizations, and to employees of State and local governments who are not employed in integral operations in areas of traditional governmental functions.

7. It will establish safeguards to prohibit employees from using their positions for a purpose that is or gives the appearance of being motivated by a desire for private gain for themselves or others, particularly those with whom they have family, business, or other ties.

8. It will give the grantor agency and the Comptroller General through any authorized representative the access to and the right to examine all records, books, papers, or documents related to the grant.

9. It will comply with all requirements imposed by the Federal grantor agency concerning special requirements of law, program requirements, and other administrative requirements.

10. It will insure that the facilities under its ownership, lease or supervision which shall be utilized in the accomplishment of the project are not listed on the Environmental Protection Agency's (EPA) list of Violating Facilities and that it will notify the Federal grantor agency of the receipt of any communication from the Director of the EPA Office of Federal Activities indicating that a facility to be used in the project is under consideration for listing by the EPA.

11. It will comply with the flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973, Public Law 93-234, 87 Stat. 975, approved December 31, 1976. Section 102(a) requires, on and after March 2, 1975, the purchase of flood insurance in communities where such insurance is available as a condition for the receipt of any Federal financial assistance for construction or acquisition purposes for use in any area that has been identified by the Secretary of the Department of Housing and Urban Development as an area having special flood hazards.

12. It will comply with all applicable requirements of Section 13 of the Clean Water Act Amendments of 1972 (P.L. 92-500), if the grant is awarded under any grant authority of that Act, which provides that no person in the United States shall, on the ground of sex be excluded from participation in, be denied the benefits of, or be otherwise subject to discrimination under any program or activity under the said Clean Water Act Amendments for which the applicant receives financial assistance and will take all necessary measures to effectuate this agreement.

* U.S. GOVERNMENT PRINTING OFFICE: 1979 -620-228/4054

DESCRIPTION OF DYNAMIC WATER QUALITY MODEL RUNS

Test Run Purpose	Temp °C	Flow - cfs	Carbonaceous Loading	Nitrogenous Loading	Comment	WLA Run No.
Evaluate low flow conditions (inflow at Trenton gage)	27	2,000	1978 Allocations	-20%		3
	"	2,400	" "	"		4
	"	2,700	" "	"		7
	"	3,000	" "	"		5
	"	3,475	" "	"		8
Evaluate high flow conditions (inflow at Trenton gage)	27	10,000	1978 Allocations	-20%		9
	"	20,000	" "	"		10
	"	25,000	" "	"		11
Evaluate effects of higher temperature with various low flows	30	2,000	1978 Allocations	-20%		12
	"	2,400	" "	"		6
	"	2,700	" "	"		13
	"	3,000	" "	"		14
	27.25	2,700	" "	"	Response to City of Philadelphia's criticism of Level B.	15
Evaluate different nitrogenous rates	27	2,700	1978 Allocations + Reserve	-20%		17
	"	"	" "	"	High NOD rate	18
Evaluate different reduction schemes	27	2,700	-90%	-	1980 Raw loads	19
	"	"	"	-20%	" "	20
	"	"	-95%	"	" "	21
	"	"	-90%	-50%	" "	22
	"	"	-95%	"	" "	23
	"	"	-90%	-75%	" "	24
	"	"	-95%	"	" "	25
Evaluate SOD rates	27	2,700	-90%	-20%	1980 Raw loads ½ Standard SOD values	26
	"	"	"	"	" " SOD = 1.0 gm/m^2/d	27
	"	"	"	"	" " SOD = 0.5 gm/m^2/d	28
Compare against 2-D model @ higher flow	27	7,800	-90%	-20%	1980 Raw loads	29
Trial 1980 Calibration Run	27	3,475	1975/76 Discharge Loads		Upgraded Philadelphia Southwest	30
1980 Verification	25	2,912	1980 Loads			31
1980 Verification	25	2,912	1980 Loads		Adjust Chlorophyl A Rates	32
1980 Verification	25	2,912	1980 Loads		Back ground Chlorophyl A Adjust Nitrogen rate Zone 2	33
1980 Verification	25	2,912	1980 Loads		Adjust Chlorophyl A Rates Adjust Nitrogen rate Zone 2 Adjust Euphotic depth Zone 2	34
Test Current Allocations	27	2,800	1980 Allocations and Reserve		Same adjustments as WLA34	35