EPA

July 30 - August 2, 1991

OWOW National Program Meeting

Office of Wetlands, Oceans, and Watersheds

Charlottesville, Virginia

Organization of OWOW National Program Meeting Notebook

Section Number	Title
1	Agenda
2	OWOW -- Getting To Know Us
3	Customer Survey
4	Watershed Protection Initiative
5	Cross-cutting Issues
6	Oceans and Coastal Protection Division
7	Wetlands Division
8	Assessment and Watershed Protection Division
9	Regions 1, 2, and 3
10	Regions 4, 5, and 6
11	Regions 7, 8, 9, and 10
12	Miscellaneous

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Office of Wetlands, Oceans and Watershed

National Program Meeting

U.S. Environmental Protection Agency
Office of Water
Office of Wetlands, Oceans and Watersheds

Charlottesville, Virginia
July 30 - August 2, 1991

AGENDA

Prelude
Monday Evening, July 29

5:30 - 9:00 pm *Salon C*	Registration Reception	

Day One
Tuesday, July 30

8:00 - 8:30 am *Salon C*	Registration Continental Breakfast	

Joint Session
Salon C

8:30 - 9:15 am	Welcome *Introduction* *Meeting Objectives* *OWOW Organization and Functions*	*Wayland/Davis*
9:15 - 10:15 am	Customer Survey and Regional Discussion	*Regions/Wise*
10:15 - 10:30 am	Break	

Office of Wetlands, Oceans and Watershed

National Program Meeting

10:30 - 11:30 am	Customer Survey and Regional Discussion	
11:30 - 12:00 pm	Budget	*Davis*
12:00 - 1:30 pm	Lunch Keynote Speaker: Trevor Clements North Carolina Division of Environmental Management	*The Hardware Store Restaurant* *316 E. Main St* *On the Historic Downtown Mall*
1:30 - 2:30 pm	Long Term Vision and Short and Long Term Goals *Reorganization Implications* *Common Challenges/Opportunities* *Discussion*	*Wayland/Davis*
2:30 - 2:45 pm	Break	
2:45 - 4:30 pm	Watershed Protection *WPI* *Regional Examples* *Barriers and Incentives*	 *Wise* *Manfredonia* *McGhee/Regions*
4:30 - 5:30 pm	Crosscutting Issues *CWA* *Outreach* *SAB/Habitat* *Agricultural Pollution Prevention* *Water Conservation*	 *Wise* *Eugster/ Pawlukiewicz* *Grubbs* *Davis*
5:30 pm	Adjourn	

Office of Wetlands, Oceans and Watershed

National Program Meeting

6:30 - 7:30 pm *Atrium Room*	Social Hour	
7:30 pm *Atrium Room*	Group Buffet Dinner Keynote Speaker: Trudy Coxe National Oceanic and Atmospheric Administration	

Day Two
Wednesday, July 31

8:00 - 8:30 am *Salon C*	Continental Breakfast	
Joint Session *Salon C*		
8:30 - 9:30 am	NPS/CZMA	*Grubbs*
9:30 - 10:30 am	Delineation Manual	*Meagher*
10:30 - 10:45 am	Break	
10:45 - 11:45 am	Sediment Strategy	*Lishman*
11:45 - 12:45 am	Lunch *on your own*	
Breakout Sessions		
12:45 pm	Refer to the Division Agenda	*Division Directors*
Meeting room assignments will be posted.	*You will find the Division Agendas following this agenda in your notebook.*	

Office of Wetlands, Oceans and Watershed

National Program Meeting

Day Three
Thursday, August 1

8:00 - 8:30 am *Salon C*	**Continental Breakfast**	
Breakout Sessions		
8:30 - 10:15 am	**Refer to the Division Agenda**	***Division Directors***
Meeting room assignments will be posted.	*You will find the Division Agendas following this agenda in your notebook.*	
10:15 - 10:30 am	**Break**	
Joint Session ***Salon C*** **10:30 - 11:30 am**	**Remaining Issues and Action Items**	***Wise***
11:30 - 12:00 pm	**Wrap-up**	***Regions/ Wayland***
Breakout Sessions		
12:00 pm	**Options for the Division Directors** **Refer to the Division Agenda**	***Division Directors***
Meeting room assignments will be posted.	*You will find the Division Agendas following this agenda in your notebook.*	

Day Four
Friday, August 2 (Optional for Division Directors)

8:00 - 8:30 am *Salon C*	Continental Breakfast	
Breakout Sessions		
8:30 am *Meeting room assignments will be posted.*	Options for the Division Directors Refer to the Division Agenda *You will find the Division Agendas following this agenda in your notebook.*	*Division Directors*

OCEANS AND COASTAL PROTECTION DIVISION

Draft Agenda July 17, 1991

Oceans and Coastal Protection Division/Regions

Wednesday, July 31 Joint Session		Leads[2]
8:30 - 9:30	Non-point Source/Coastal Zone Management Act	Grubb
9:30 -10:30	Delineation Manual	Meagher
10:30-10:45	Break	
10:45-11:45	Sediment Strategy	Lishman Southerland
11:45- 12:45	Lunch	
	Oceans and Coastal Protection Division Session Begins	
12:45- 2:00	Introductory Comments and Regional Issues and Meeting Expectations	Mlay/Barsamian
2:00 - 3:30	National Estuary Program Post CCMP Activities o Role of EPA in implementation, e.g. Multi-state estuaries. o 320 "oversight-evaluation" o Other resources; 319 et.al. o Evaluation protocol/how to proceed.	Curran/ Region X
	New NEPs o Funding availability for new NEPs o "Ultraslimfast" approach to CCMP development	Curran/Barsamian
	Current NEPs o Support activities o Oversight activities o Funds management o Earlier date for plans and funds release	Curran/Manfredonia
	Coastal America o Status Report o Review of FY91 Pilot projects o Coastal America support other coastal programs, e.g. NCW.	Curran
3:30 - 4:30	Near Coastal Waters Program o Status of NCW Guidance and next steps o Region I and X experiences-->guidance document o Base Programs support of NCW Strategy Implementation o NCW vs. Watershed Initiative: Relationship	Soscia/Monahan

4:30 - 5:30	OCPD - AWPD - Regions Round Table Discussions o CZM - relationship to OCPD and AWPD o NPS Control Measures o Coordination/cooperation o Information Management o Monitoring	Vogt/Pepino

Thursday

8:30 - 10:30	FY92 Planning o Regional input to HQ Workplan -Process -Areas for consultation o Information Transfer	Mlay
	Joint Session	
10:30 -11:30	Remaining Issues and Action Items	Wise
11:30 -12:00	Wrap-up	Regions/Wayland
Noon - 1:00 pm	Lunch	
1:00 - 2:00	OCPD - Wetlands Division - Regions Round Table Discussions o Habitat enhancement o Mitigation Banking o Wetlands and the NEP o Coordination/cooperation	Soscia/Eugster/ Crum
2:00 - 3:00	FY91-93 OCPD Budget Issues o FY91 Budget: Remaining issues o FY92 Budget (See Plan) o FY93 Budget Process: Initiatives - outlook	Mlay-Vogt
3:00 - 4:00	Ocean Dumping o LTMS for Dredged Material/Beneficial Uses o Status of Green Book/Regional Manuals o CZMA Consistency/OD Designations ;o National Marine Sanctuaries/DM Sites o Site management and monitoring.	Lishman/Muir
4:00 - 4:30	Marine Debris Strategy/Action Plans	Redford/ Region II

Friday

8:30 - 9:00	ANDERSON o NCW and NEP Monitoring o Scheduling: 2-3 year plan o Planning and Reporting strategies	Klima/ Region III
9:00 - 9:30	Outreach o Coastal Pollution Workshops o Beach Cleanups o ANDERSON PR o Mechanisms for transferring information?	Klima/ Region IV
9:30 - 10:00	Research & Development: Strategy & Needs o Determining needs o Working with ORD to keep on track o NCW and NEP Monitoring o Scheduling: 2-3 year plan o Planning and Reporting Strategies	Vogt/Hood
10:00 - 10:30	403 Program: Planned Actions o Moving 403 inside the Baseline o Resource allocation/STARS o ANPRM Schedule/Scope o Training	Klima/ Region X
10:30 - 11:00	Information Management o Status of ODES o What are needs/gaps information management o Use of ODES in NEPs, OD and 403(c) Programs o Interface with ODES now that it is not in OCPD o Environmental Indices	Klima/ Region VI
11:00 - 11:30	Issues closure, review of action items, next steps.	Mlay
11:30 - 12:30	Ocean Dumping (Workload Model)	Lishman/Vogt/ Barsimian

[1] Regional Leads to be decided after consultation with Lead Region and potential Regional co-leads.

Note: A briefing book to be provided in advance of the meeting.

OCEANS AND COASTAL PROTECTION DIVISION

Final Agenda

Oceans and Coastal Protection Division/Regions

		LEAD
12:45- 2:00	Introductory Comments and Regional Issues and Meeting Expectations	Mlay/Barsamian
2:00 - 3:30	National Estuary Program Post CCMP Activities o Role of EPA in implementation, e.g. Multi-state estuaries. o 320 "oversight-evaluation" o Other resources; 319 et.al. o Evaluation protocol/how to proceed.	Curran/Rylko
	New NEPs o Funding availability for new NEPs o "Ultraslimfast" approach to CCMP development	Curran/Barsamian
	Current NEPs o Support activities o Oversight activities o Funds management o Earlier date for plans and funds release	Curran/Manfredonia
	Coastal America o Status Report o Review of FY91 Pilot projects o Coastal America support other coastal programs, e.g. NCW.	Soscia
3:30 - 4:30	Near Coastal Waters Program o Status of NCW Guidance and next steps o Region I and X experiences-->guidance document o Base Programs support of NCW Strategy Implementation o NCW vs. Watershed Initiative: Relationship	Soscia/Monahan
4:30 - 5:30	OCPD - AWPD - Regions Round Table Discussions o CZM - relationship to OCPD and AWPD o NPS Control Measures o Coordination/cooperation o Information Management o Monitoring	Vogt/Pepino

Thursday

8:30 - 10:30	FY92 Planning o Regional input to HQ Workplan -Process -Areas for consultation o Information Transfer	Mlay
	Joint Session	
10:30 -11:30	Remaining Issues and Action Items	Wise
11:30 -12:00	Wrap-up	Regions/Wayland
Noon - 1:00 pm	Lunch	
1:00 - 2:00	OCPD - Wetlands Division - Regions Round Table Discussions o Habitat enhancement o State Wetlands Conservation Plans o Wetlands and the NEP o Coordination/cooperation	Soscia/Eugster/ Barsimian/Crum
2:00 - 3:00	FY91-93 OCPD Budget Issues o FY91 Budget: Remaining issues o FY92 Budget (See Plan) o FY93 Budget Process: Initiatives - outlook	Mlay-Vogt
3:00 - 4:00	Ocean Dumping o LTMS for Dredged Material/Beneficial Uses o Status of Green Book/Regional Manuals o CZMA Consistency/OD Designations o National Marine Sanctuaries/DM Sites o Site management and monitoring.	Lishman/App
4:00 - 4:30	Marine Debris Strategy/Action Plans	Redford/DelVicario

Friday

8:30 - 9:00	ANDERSON o NCW and NEP Monitoring o Scheduling: 2-3 year plan o Planning and Reporting strategies	Klima/App
9:00 - 9:30	Outreach o Coastal Pollution Workshops o Beach Cleanups o ANDERSON PR o Mechanisms for transferring information?	Klima/Crum
9:30 - 10:00	Research & Development: Strategy & Needs o Determining needs o Working with ORD to keep on track o NCW and NEP Monitoring o Scheduling: 2-3 year plan o Planning and Reporting Strategies	Vogt/Hood/DelVicario
10:00 - 10:45	403 Program: Planned Actions o Moving 403 inside the Baseline o Resource allocation/STARS o ANPRM Schedule/Scope o Training 301(h): An Update	Klima/Rice
10:45 - 11:15	Information Management o Status of ODES o What are needs/gaps information management o Use of ODES in NEPs, OD and 403(c) Programs o Interface with ODES now that it is not in OCPD o Environmental Indices	Klima/Horvath
11:15 - 11:30	Issues closure, review of action items, next steps.	Mlay
11:30 - 12:30	Ocean Dumping (Workload Model)	Lishman/Vogt

WETLAND DIVISION

NATIONAL PROGRAM MEETING

Draft Agenda

Monday Evening, July 29 - Prelude

5:30 -	Registration/reception	

Day 1, Tuesday, July 30

8:30 - 5:30	OWOW Joint Session	
6:30 - 7:30	OWOW Social Hour	
7:30 -	OWOW Group Buffet Dinner	

Day 2, Wednesday, July 31

8:30 - 11:45	OWOW Joint Session	
11:45 - 12:45	Lunch	

Breakout Session

12:45 - 1:30	Welcome/introductory comments	Meagher/ Lead Region
1:30 - 2:15	Agency planning/budgets/effects of reorganization/etc in a nutshell	Meagher
2:15 - 3:45	Regional roundtable	Region 9, Moderator
3:45 - 4:00	Break	
4:00 - 6:00	Where are we and how did we get here? (status updates on DPC/Congress, including CWA reauthorization/Reilly and LaJuana's positions on categorization/etc., and discussion)	Schwartz
7:30 -	Wetlands Division Dinner	

Day 3, Thursday, August 1

Breakout Session

8:30 - 10:15	Now that we're here, what do we do about it? (Regional strategic initiatives)	Eugster/ Pomponio

10:15 - 10:30	Break	

OWOW Joint Session

10:30 - 12:00	Remaining issues, action items and wrap-up	

Breakout Session

12:00 - 1:00	Lunch	
1:00 - 2:00	OCPD/WD Joint Session (habitat enhancement, mitigation banking, wetlands/NEP, coordination/ cooperation)	Crum/Eugster /Soscia
2:00 - 3:15	Where have we been told we will be going? (categorization; mitigation banking; Manual; created wetlands; section 404 assumption; state wetland comprehensive plans)	Eugster/ Peck
3:15 - 3:45	Break	
3:35 - 4:45	Example of approach to field testing the Manual	Region 3
4:45 - 6:15	What can we do while we're here? (elevated cases; enforcement; delineations; getting better, more specific data; public outreach; working with states/locals; working with other programs)	Peck/Eugster /Vodehnal
8:00 -	Open discussion on Manual and any other issues raised/beer bash	

<u>Day 4, Friday, August 2</u>

Breakout Session

8:30 - 10:00	Where do we want to go? (ORD research plan; beyond the strategic initiative)	Group/ORD
10:00 - 11:30	Wrap-up (action items, etc.)	Schwartz
11:30 - 12:00	Good-byes	

ASSESSMENT AND WATERSHED PROTECTION DIVISION

OFFICE OF SCIENCE AND TECHNOLOGY

JOINT MEETING

Day 2, Wendesday, July 31

12:45 - 1:15	OST/OWOW Coordination	Hanlon/Grubbs
1:15 - 2:30	Monitoring and Assessment	Jester/Regions
	o Indicators/EMAP o Inter-Agency Coordination o Data Systems Modernization	
2:30 - 2:45	Break	
3:00 - 4:30	Nonpoint Source Program	Weitman/Regions
	o Grants: Buying better results o National NPS monitoring projects o Tracking/accountability	
4:30 - 5:30	Joint Session with OCPD	

Day 3, Thursday, August 1

8:00 - 9:45	Water Quality Criteria and Standards	Stasikowski /Leutner
	o Criteria: Current program, future needs o Toxics Rule o Implementation Issues	
9:45 - 11:00	Watershed Program	Grubbs/Hanlon
	o TMDLs o Targetting o Regional WPIs	

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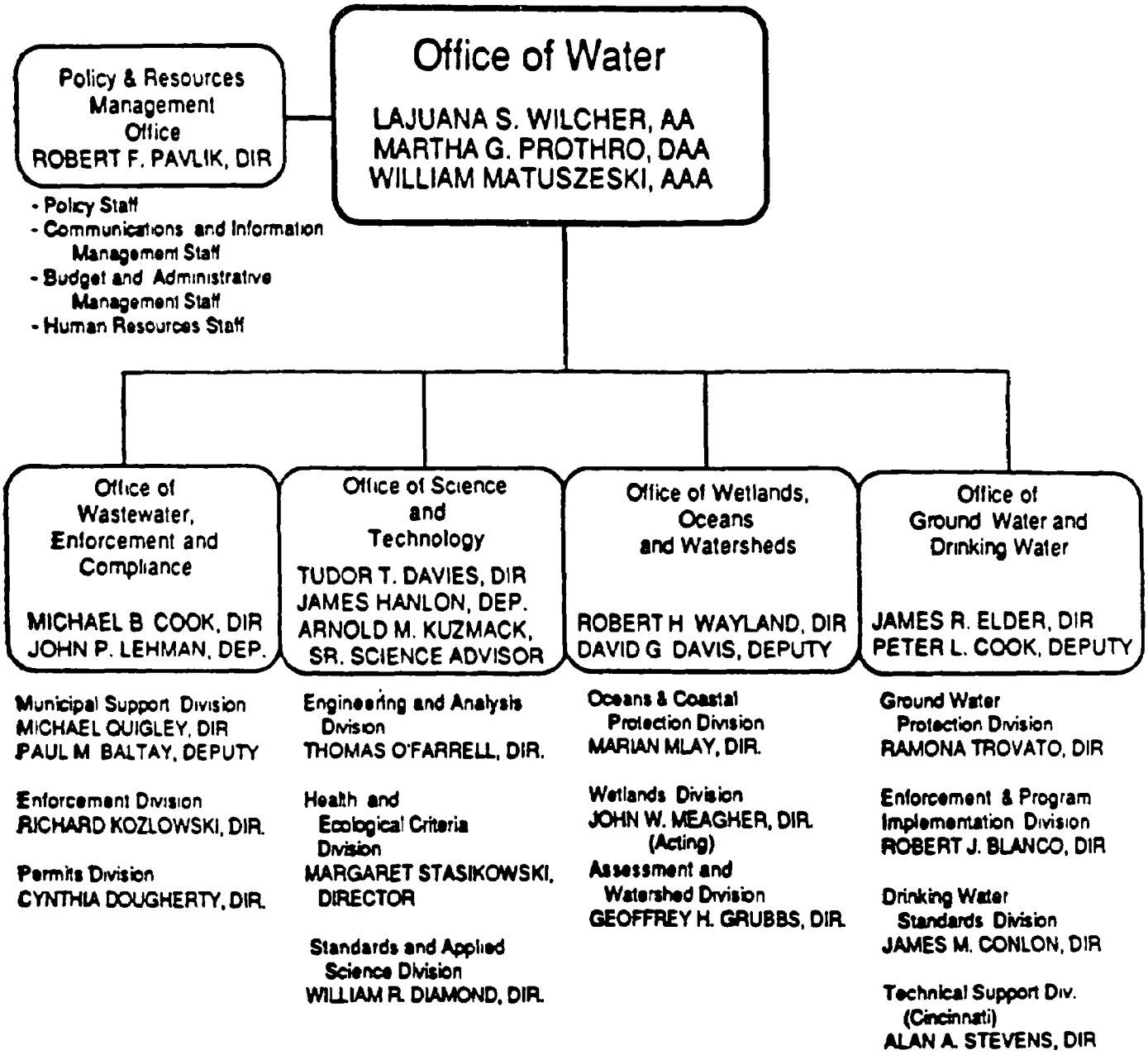
OFFICE OF WATER REORGANIZATION



OFFICE OF WETLANDS, OCEANS, AND WATERSHEDS

Policy & Communications Staff
Louise Wise, Chief
382-7166

Robert H. Wayland, III, Director
David G. Davis, Deputy Director
382-7166

Budget & Program Management Staff
Beth Craig, Chief
475-8580

ASSESSMENT & WATERSHED PROTECTION DIVISION

Geoff Grubbs, Director
Carl Myers, Deputy Director
382-7040

Monitoring Branch

Elizabeth Jester, Chief
382-7074

Monitoring Section
Mary Belefski, Chief

Information Services Section
Robert King, Acting Chief

Watershed Branch

Bruce Newton, Acting Chief
382-7046

Watershed Management Section
Don Brady, Chief

Lakes, Grants, and Outreach Section
Frank Lapensee, Chief

Nonpoint Source Control Branch

Dov Weitman, Chief
382-7100

Urban Sources Section
Rod Frederick, Chief

Rural Sources Section
Steve Dressing, Acting Chief

Program Implementation Section
Stu Teller, Chief

WETLANDS DIVISION

John Meagher, Director
Suzanne Schwartz, Deputy Director
475-7791

Wetlands Strategies & State Programs Branch

Glenn Eugster, Acting Chief
382-5043

Outreach & State Programs Section
Glenn Eugster, Chief

Strategies & Initiatives Section
Dianne Fish, Chief

Wetlands & Aquatic Resources Regulatory Branch

Greg Peck, Acting Chief
475-7799

Enforcement & Regulatory Policy Section
Cliff Rader
Acting Chief

Elevated Cases Section
Will Garvey, Acting Chief

OCEANS & COASTAL PROTECTION DIVISION

Marian Mlay, Director
Craig Vogt, Deputy Director
245-3952

Marine Ecological Assessment Branch

Karen Klima, Chief
475-7130

Marine Permits & Monitoring Branch

John Lishman, Chief
475-8448

Coastal Protection Branch

Mary Lou Soscia, Acting Chief
475-7102

Estuarine Management Branch

Mark Curran, Chief
475-7102

OFFICE OF WETLANDS, OCEANS AND WATERSHEDS

OFFICE OF THE DIRECTOR

Robert H. Wayland, Director	382-7166
David G. Davis, Deputy Director	382-7166
Janice Wingfield, Secretary	382-7166

Policy and Communications Staff

Manages special OWOW projects and initiatives, supports office-wide outreach, coordinates policy and legislative activities that cut across the OWOW divisions, and serves as the general point of contact for congressional staff, state and local governments, and other external groups. Special projects include, for example, the Watershed Protection Initiative (an initiative to promote an holistic approach to addressing targeted Watersheds) and national forum on nonpoint source issues.

Louise Wise, Director	382-7166
John T. Pai, Senior Analyst	475-8076
Betty Moore, Secretary	382-7166
Sally Proctor	382-7166
Joan Warren	475-7796
Sandy Germann	475-7218
Paula Monroe	475-6182
Janet Pawlukiewics	382-7194

Budget and Program Management Staff

Provides overall program coordination on issues involving wetlands, oceans, and watershed activities. Functions also include budget, planning, contract management, human resources management, and administrative services.

Elizabeth Craig, Director	475-8580
Vacant, Secretary	474-8580
Elena Tidwell, AARP	475-8075
Gloria Hamm	475-8077
Mary Hinton	475-7797
Pat Wilkins	475-8580
Bob Brown	382-7194
Mary Hinton	475-7797
Ray Baum	475-9553
Roy Bathbun	382-7193
John W. Meager, Director	382-5043

Suzanne E. Schwartz, Deputy Director	382-5043
Vacant, Secretary	
Geneva Funderburk, Receptionist	382-5043
Renea Davis, Stay-in-School	

Wetlands Strategies and State Programs Branch

Glenn Eugster, Acting Branch Chief	382-5043
Virginia Fickling, Secretary	382-5043
Stanley Franczak, Clerk Typist	382-5043
Curtis Clark (AARP)	245-3903

Outreach and State Programs Section

Develops and implements programs, strategies and activities for 1) assisting State, Tribal, and local governments with wetlands protection including the administration of Headquarters responsibilities for formal delegation of the CWA section 404 program to qualified States or Tribes and State Wetlands program Development Grants; 2) public education, information and outreach on wetlands values, functions and protection alternatives including the Wetlands Hotline; 3) coordination and joint activities with Federal agencies concerning wetlands protection; and 4) supporting various wetlands related international programs and organizations.

Glen Eugster, Chief	382-5043
Lori Williams	382-5084
Majorie Wesley	245-3905
Judy Johnson	245-3907
Cory Giacobbee	382-5043
Jeanne Melanson	382-7073

Strategies and Initiatives Section

Develops strategies, policies, technical or program guidance and conducts activities in the following areas: 1) Assists other EPA programs with the design and implementation of methods to factor consideration of wetland functions and values into actions undertaken, managed, funded, or permitted by the Agency (especially other water programs and Superfund); 2) Initiates and participates in ecosystem initiatives to address problems of wetland loss and degradation which require comprehensive strategies or landscape scale approaches; 3) Develops or improves strategies and approaches to wetlands protection including: state wetland conservation planning, and Section 401 certification, 4) Coordinates non Section 404 legislative activities for Division and 5) Serves as liaison with the Office of Research and Development on research planning wetland research related to water quality and monitoring, and addresses issues of wetlands for wastewater treatment.

Diane Fish, Chief	382-7071
Sherri Field	245-3932
Fran Eargle	
Doreen Robb	245-3906
Martha Stout	475-6745
Bill Sipple	382-5066

Wetlands and Aquatic Resources Regulatory Branch

Greg Peck, Acting Chief	475-7799
Stephanie Noble, Secretary	382-7946

Elevated Cases Section

Provides policy and technical support and assistance to the Regions on the review of activities regulated under Section 10 of the 1899 River and Harbors Act and Section 404 of the Clean Water Act. Analyzes cases elevated to EPA Headquarters, providing programmatic and technical advice for agency decision making on Section 404 actions. Coordinates with the Regions, EPA Headquarters Offices and other Federal agencies in executing these responsibilities.

Will Garvey, Acting Chief	245-3900
Sandy Sieg-Ross	
Joe Davia	245-3902

Enforcement and Regulatory Policy Section

Develops regulations, policies and guidance to provide environmental criteria and regulations for discharge of dredged and fill material in regulated waters under CWA Section 404 (b) (1); to restrict or prohibit the use of a discharge site under CWA Section 404(c); to enforce provisions that address discharges of dredged and fill material under Clean Water Act Sections 301, 309 and 404; to determine the scope of waters regulated; and to determine the implementation of exemptions from regulation. Works with the Regions, the Army Corps of Engineers, other Federal agencies, and external groups in executing these responsibilities.

Cliff Rader, Acting Chief	382-5087
Hazel Groman	475-8798
John Goodin	475-7799
Cliff Rader	382-5087
Mike Fritz	245-3913
Tom Kelsch	475-7799
Menchu Martinez	382-5299

OCEANS AND COASTAL PROTECTION DIVISION

Marian Mlay, Director	245-3952
Craig Vogt, Deputy Director	245-3952
Pearl Smith, Secretary	245-3952
Claire McKenzie	245-3952

Marine Ecosystem Protection Branch

Develops and implements programs for 1) the ocean discharge programs under sections 403 and 301(h) of the Clean Water Act, including marine ecological risk assessment, regulations, information management, technical guidance for the Regions and States, and pollution prevention initiatives; 2) manages the Ocean Survey Vessel, Peter W. Anderson in support of Regional and Headquarter's monitoring surveys, maintains an active public outreach program through OSV Anderson activities; 3) coordinates interagency and international oceans programs and policies including land-based sources.

Karen Klima, Chief	475-7124
Wanda Resper, Secretary	475-7130
Floretta Hanson, AARP	475-7130
Jonathan Amson	475-7125
Barry Burgan	475-7134
Brigitte Farren	475-7530
Ginny Fox-Norse	475-7129
Tim Kasten	475-7181
Dan Olson - (Sea Grant Fellow)	
Kevin Perry	475-7133

Marine Permits and Monitoring Branch

Develops and implements programs and strategies for (1) the regulation of ocean dumping under the Marine Protection, Research, and Sanctuaries Act, including development of regulations and technical guidance, enforcement support and training, ocean dumping monitoring and guidance to Regions; (2) marine debris activities, including public education activities, marine debris monitoring activities, and coordination with other EPA offices and Federal agencies; and (3) technical support and participation in international programs under the London Dumping Convention (ocean dumping) and MARPOL (ship-general wastes).

John Lishman, Chief	475-8448
Bernadette Campbell, Secretary	475-8448
Bertye DeShields, AARP	475-8448
Ellen Delaney	475-9798
Susan Hitch	475-7178

Ed McLean, OCPD	475-7122
(Cent. Regional Lab 8-266-9180)	
David Redford	475-7179

Coastal Protection Branch

Implements policies and provides guidance related to the National Estuary (NEP) and the Near Coastal Waters (NCW) Programs, including: 1) implementation of EPA Marine and Coastal Policy and Federal policy development; 2) coordination of estuarine international issues; 3) work with Regions 2, 3, and 5 and GLNPO on the Great Lakes and Chesapeake Bay (including Comprehensive Conservation Management Plan approval process, Federal consistency, benefits analysis, and bioassessment procedures; and 5) staff support to manage EPA's role in Coastal America.

Mary Lou Soscia, Acting Chief	475-7102
Joanne King, Secretary	475-7102
Delois Jones, AARP	475-7102
Steve Glomb	475-7114
Betsy Tam	245-4366
Ray Hall	475-6145
Diane David	475-9738
Mark Flory	475-7104
Leanne Stahl	475-9799
Sam Pett - (Sea Grant Fellow)	475-7109
Donna Nickerson	245-4364
(Detail from Office of Air)	

Estuarine Management Branch

Implements policies and provides guidance related to the National Estuary Program (NEP) and the Near Coastal Waters Program (NCW), including 1) implementation of the NEP data management policy; 2) coordination of the NEP with Federal and State coastal zone management agencies; 3) implementation of information transfer tools; 4) oversight of the NEP Action Plan Demonstration Program and the NCW Pilot Projects; 5) development and application of NEP guidance on monitoring, estuarine characterization, and action plan financing; and 6) oversight of public outreach and involvement.

Mark Curran, Chief	475-8483
Nadeen Thompson, Secretary	475-7102
Tom Armitage	475-7378
Stephanie Sanzone	475-7137
Lore Hantske	475-7111
Joe Hall	475-8484
Margherita Pryor	475-7176
Susan Jackson	475-7104

ASSESSMENT AND WATERSHED PROTECTION DIVISION

Geoff Grubbs, Director	382-7040
Carl Myers, Deputy Director	382-7040
Barbara Williams, Secretary	382-7040

Monitoring Branch

Responsible for base surface water monitoring programs for the Office of Water and for designing and directing related automated information systems. Prepares biennial reports on the status of the Nation's water quality based upon State Section 305(b) reports, develops water quality indicators, prepares technical guidance for assessing water quality and coordinates OW surface water monitoring programs with related programs elsewhere in EPA and the Federal establishment. Manages and modernizes water quality data and information systems such as STORET, BIDS ODES, and the Waterbody System to increase the availability and usability of water quality information nationwide.

Elizabeth Jester, Chief	382-7046
Paulette Williams, Secretary	382-7046

Information Services Section

Robert (Bob) King, Acting Chief	382-7028
Mary Baechtel - (Tetra Tech)	382-7074
Dora Craig	382-7032
Madeline Green	382-7031
Tom Pandolfi	382-7030

Monitoring Section

Ruth Chemerys, Acting Chief	245-3665
(Mary Belfski, Chief - on detail)	
Herman Baucom	382-7021
Chris Baulkner	382-6228
Jack Clifford	
Nina Harllee	382-7017
Roger Thoma	382-7060
Alice Mayio	382-7018

Watershed Branch

Responsible for developing national watershed-based policies and programs. These include activities related to targeting waterbodies for priority clean up, maintaining and reconciling lists of impaired waterbodies identified by States, and developing watershed-based total maximum daily loads. Focuses on broad nonpoint source-related program issues including grants policies, Clean Lakes program, outreach, technology transfer, and research needs.,

Bruce Newton, Chief	382-7076
Jendayi Oakley-Gordon, Secretary	382-7074
Martin Brossman	382-7023

Watershed Management Section

Don Brady, Chief	382-5368
Irene Suzukida	382-7010
Amy Sosin	382-7060
Sue Laufer - (Tetra Tech)	382-6385
Peggy Michell	382-5378

Lakes, Grants and Outreach Section

Frank Lapensee, Chief	382-7105
Terri Hollingsworth	382-7840
Susan Ratcliffe	382-5404
Don Kunkowski	382-7159
Henry Cooke	382-7159
Paulette Ballard	475-9588
Hal Wise (AARP)	382-7109
Carol Forshee (AARP)	245-3665
Harold Owens (AARP)	245-3666

Nonpoint Source Control Branch

Concentrates efforts on the implementation of State and Federal nonpoint source programs. The highest priority is development and execution of State nonpoint source control programs required by Section 319 of the Clean Water Act and by Section 6217 of the Coastal Zone Management Reauthorization Act of 1990, including the development of technical guidance for best management measures for major categories and classes of nonpoint sources. Responsible for establishing effective nonpoint source control programs in collaboration with major Federal agencies and departments, especially USDA, DOI, DOT, and NOAA.

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Jan Shifflett, Secretary	382-7100
Dov Weitman* - NPS Forum	392-7085

Program Implementation Section

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Lynda Buie, Secretary	382-7085
Ann Beier	382-7108
Ed Richard	475-7314
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Urban Sources Section

Rod Frederick, Chief	382-7056
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Pretreatment And Multi-Media Branch	James D. Taft
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Energy Branch	Marvin B. Rubin
Metals Branch	Ernst P. Hall
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Risk Assessment & Management Branch	Elizabeth Southerland
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RESPONSIBLE OFFICES IN THE REGIONS FOR OWOW PROGRAMS

REGION	Wetlands	NEP/NCW/Oceans	304(l)/305(b)/TMDL NPS/Clean Lakes	Monitoring
1	Water Management Division (WMD) Water Quality Branch (Ron Manfredonia)			Enviro. Svcs. Div. Monitoring/Enviro. Studies Branch (Carol Wood)
2	Water Management Division Marine & Wetlands Protection Branch (Mario Del Vicario)		Water Standards & Planning Branch (Robert Vaughn)	Enviro.Svcs. Div. Surveillance & Monitoring Branch (Richard Spear)
3	Environmental Services Division (ESD) Environmental Assessment Branch (Richard Pepino)		Water Mgmt. Div.[1] Program Support Branch (Victoria Binetti)	Enviro.Svcs. Div. Environmental Monitoring (Robert Kramer)
4	Water Management Division Water Quality Management Branch (Mike McGhee)			
5	Water Division [2] Water Quality Branch (Ken Fenner)			Enviro.Sciences Division Monit./QA Branch (Valerie Jones)
6	Environmental Services Division Federal Activities Branch (Norm Thomas)	Water Management Division[3] Water Quality Management Branch (Richard Hoppers)		Environmental Services Division Surveillance Branch (Jim Steibing)
7	Assistant Regional Administrator for Policy & Mgmt (Susan Gordon) Env. Review Branch (Kerry Herndon)		Water Management Division Water Compliance Branch (Larry Ferguson)	Enviro. Services Division Enviro. Monitoring & Compliance Branch (Thomas Holloway)
8	Water Mgmt. Div. State Program Management Branch (Dale Vodehnal)		Water Management Division State Program Management Branch (Dale Vodehnal)	
9	Water Management Division Wetlands, Oceans and Estuaries Branch (Loretta Barsamian)		Water Quality Branch (Cat Kuhlman)	
10	Water Division [4] Environmental Evaluation Branch (Ron Lee)	Office of Deputy Director (Ron Kreizenbeck)		Enviro. Svcs. Div. Ambient Mon. & Analysis Branch (Bienvenido Eusebio)

1 In Region 3, 304(l) and TMDL are managed by the Permits Enforcement Branch (Joseph T. Piotrowski) of the Water Management Division and 305(b) is managed by the Environmental Monitoring and Surveillance Branch of the Environmental Services Division.
2 In Region 5, 305(b) is managed by the Monitoring and QA Branch of the Environmental Sciences Division.
3 In Region 6, Oceans issues are managed jointly by the Environmental Sciences Division and the Water Management Division.
4 In Region 10, TMDL is managed by the Ambient Monitoring and Analysis Branch of the Environmental Services Division.

REGIONAL CONTACTS FOR THE NATIONAL ESTURARY PROGRAMS

REGION	National Estuary Program	Contact	FTS
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	Casco Bay	Mark Smith	835-9461
	Long Island Sound	Sue Beede	835-3581
	Massachusetts Bay	Matthew Liebman	835-3514
	Narragansett Bay	Katrina Kipp	835-3523
2	Delaware Bay	Eric Stern	264-5283
	Long Island Sound	Mark Tedesco	264-5170
	New York - New Jersey Harbor	Seth Ausubel	264-5170
3	Delaware Bay	Marria O'Malley	301/266-9180
	Delaware Inland Bays	Krista Mendelman	597-3360
4	Albemarle/Pamlico Estuary Study	Ted Bisterfeld	257-4727
	Gulf of Mexico	Lloyd Wise	257-2126
	Indian River Lagoon	Carol Tarras	257-2126
	Sarasota Bay	Rhonda Evans	257-2126
	Tampa Bay	Rhonda Evans	257-2526
5	Great Lakes National Program Office	John Piper	353-8030
6	Barataria - Terrebonne	Barbara Keeler	255-6680
	Galveston Bay	Ken Teague	255-6680
	Gulf of Mexico	Russell Putt	255-6680
7 & 8	No National Estuary Programs		
9	San Francisco Bay	Amy Zimpfer	484-1952
	Santa Monica Bay	Paul Jones	484-1984
10	Puget Sound	Jack Gakstatter	399-0966

REGIONAL CONTACTS FOR OWOW PROGRAMS[1]

PROGRAM / REGION	WETLANDS	NCW	OCEAN DUMPING	MARINE DEBRIS	403(c)	301(h)	304(l)	305(b)	TMDL	NPS	CLEAN LAKES	MONITORING
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2	Dan Montella FTS 264-5170	Janice Rollwagon FTS 264-5170	Bruce Kiselica FTS 264-5692	Paul Molinari FTS 264-2513	Felix Locicero FTS 264-5691	Felix Locicero FTS 264-5691	Rosella O'Conner FTS 264-8479	Pat Pergola FTS 264-5623	Rosella O'Conner FTS 264-8479	Tony Dore FTS 264-2059	Theresa Faber FTS 264-8708	Randy Braun FTS 340-6692
3	Barbara D'Angelo FTS 597-9301	Bill Muir FTS 597-2541	Bill Muir FTS 597-2541	Charles App FTS 597-9589	Bill Muir FTS 597-2541		Thomas Henry FTS 597-8243	Chuck Kanetsky FTS 597-8176	Thomas Henry FTS 597-8243	Hank Zygmunt FTS 597-3429	Hank Zygmunt FTS 597-3429	Chuck Kanetsky FTS 597-8176
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5	Doug Ehorn FTS 886-0243	Janet Causey FTS 353-2079					Jane DeRose-Bannem FTS 353-2105	Wayne Davis FTS 886-6233	Robert Pepin FTS 886-1505	Tom Davenport FTS 886-0209	Tom Davenport FTS 886-0209	Wayne Davis FTS 886-6233
6	Jerry Sanders FTS 255-2263	Russell Putt FTS 255-6680	George Horvath FTS 255-6680	George Horvath FTS 255-6680	Brian Burgess FTS 255-7175		Russell Bowen FTS 255-7140	Carl Young FTS 255-7145	David Neleigh FTS 255-7145	Susan Alexander FTS 255-7140	Mike Bira FTS 255-7140	Charles Hornig FTS 255-2289
7	Diane Hershberger FTS 276-7573						Bob Steiert FTS 276-7443	John Houlihan FTS 276-7432	John Houlihan FTS 276-7432	Julie Elfving FTS 276-7475	Donna Sefton FTS 276-7500	Tom Holloway FTS 276-3881
8	Gene Reetz FTS 330-1570						Bruce Zander FTS 330-1580	Tony Ott FTS 330-1573	Bruce Zander FTS 330-1580	Roger Dean FTS 330-1571	David Rathke FTS 330-1574	David Vana-Miller FTS 330-5061
9	Phil Oshida FTS 484-1971	Suzanne Marr FTS 484-1963	Stephanie Wilson FTS 484-1962	Aaron Setran FTS 484-1967	Stephanie Wilson FTS 484-1962	Janet Hashimoto FTS 484-1962	Tom Johnson FTS 484-2006	Laura Tom FTS 484-2006	Laura Tom FTS 484-2006	Javita Parjarillo FTS 484-2011	Wendell Smith FTS 484-2018	Laura Tom FTS 484-2006
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[1]Contacts for the National Estuary Programs are listed separately.

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MARK D. CURRAN
Chief, Estuarine Management Branch
Oceans and Coastal Protection Division

I was born and raised in Newburyport, Massachusetts, along with the other 240 kids in my High Scool graduating class. Newburyport really set the stage for my choice of careers, living at the mouth of the Merrimack River, working around fishing boats, and spending much of my "recreational time" on the beach at Plum Island. When I told him that I wanted to be a marine biologist when I grew up, my misguided guidance counselor (a big fan of Jacques Cousteau) thought that sounded great, so off I went to the University of Rhode Island. After four years, I left URI with a BS in Zoology, a minor in Marine Affairs, and a wife (not in that order).

After college, I joined a small environmental consulting firm called TAXON, Inc. in (you guessed it) Massachusetts. Our capabilities statement was pretty much limited to benthic monitoring. With a staff of about 10 people, everyone did everything; sample collection, laboratory analysis, data synthesis, report writing, and marketing. About a year after I arrived, the company's owner (a benthic ecologist from New Zealand) succeeded in acquiring enough debt for the company to qualify for Chapter 11. Seeing the hand writing on the wall, I moved on to a larger contractor; Battelle Ocean Sciences in Duxbury, Massachusetts.

I continued with benthic monitoring studies for the first couple of years at Battelle, but gradually began to move out of field and lab work and into marine policy and assessment. In Year 5 of a 7 year stint with Battelle, I became Deputy Program Manager on the technical support contract with EPA's Office of Marine and Estuarine Protection (remember OMEP?). In Year 6 I relocated to Washington, DC to manage Battelle's staff assigned to the contract, with primary responsibility for all work being done in support of the National Estuary Program and Near Coastal Waters Program. This prepared me for a position that opened up in 1989 with the Technical Support Division of OMEP; I applied and was hired. I became Acting Chief of OMEP's Technical Services Branch in January of 1990, and became permanent in October 1990. This Branch, which became the Estuarine Management Branch after the OW reorganization, shares responsibility for the National Estuary Program and the Near Coastal Waters Program with the Coastal Protection Branch.

My wife Donna, three kids (Emma 6, Jessie 4, and Christopher 2, in case you want to send birthday cards), dog, and I live in Fairfax, VA, which is 15 miles and 2 hours from Washington, DC. After living in the Washington area for the last three years, we're starting to unpack the boxes. But not all of them!!

DAVID G. DAVIS
Autobiographical Sketch

I was born and raised in a tiny coal-mining town in the hill country of Southern Illinois. Thanks to the local culture and natural environment and parents interested in nature and conservation, I spent much of my time wandering the fields, woods, and bottomland swamps fishing and hunting. Very early on I became particularly interested in birds and native plants. I followed my dad's footsteps to the University of Illinois where I majored in Microbiology and minored in Biochemistry and fraternity social life (Delta Chi). I got my BS and a U.S. Air Force Commission in 1967. The Air Force allowed me an extra year to get my MS in Microbiology, and in late 1968 I entered active duty. For reasons never made clear to me, the Air Force placed me in the supply services field involving the management of dining halls, commissaries, exchanges, housing, and the like--not very glamorous but good management experience. I spent 3 years in Charleston, South Carolina (where I met and married my first wife), eventually becoming a Captain and Squadron Commander of an almost 500-person squadron. My last year was spent at Udorn in Thailand where I got to participate at a generally safe distance in the war. Upon leaving the Air Force, I went back to school (Harvard Business School) and got an MBA. I then combined by biology and management education with my lifelong interest in conservation, and found a job in the recently-created EPA. Over the course of time, I worked as an economic impact analyst, a general policy analyst, and a manager at various levels and in a variety of program areas including industrial effluent guidelines, sewage sludge management, toxic substances control, environmental impact assessment, federal facilities compliance, Indian activities, and wetlands protection. It has been in the latter area that I have spent the most time (about 13 years) culminating in being chosen to head the Office of Wetlands Protection shortly after its establishment in late 1986, a position I held until the Office of Water reorganization of April 1991. I remarried in 1979 and have two children--Richard (1982) and Lisa (1985). My wife, JoAnn Mills, worked for the U.S. Fish and Wildlife Service until Lisa was born and is now doing volunteer environmental work for Fairfax County, Virginia. We own an old farm in the Appalachians in northwestern Virginia where we spend as much time as possible enjoying the woods, creek, and wetlands. My main pastimes, in addition to hunting and nature study generally, include birding, bicycling, and hiking and reading books on evolutionary biology, paleontology, and history.

Larry B. Ferguson
Chief, Water Compliance Branch
Water Management Division
Region VII
Environmental Protection Agency
Kansas City, Kansas

After giving up on farming, I entered college and graduated from Kansas State University in 1963 with a B.S. in Civil Engineering.

Upon graduation, I immediately embarked upon a career as a federal bureaucrat with the Bureau of Reclamation where I remained until 1971. After "fighting" with EPA on several dam and reservoir projects, I decided to join the environmental movement and in the spring of 1971 began my EPA career working on water resources projects. (The other side of the fence.)

In 1973 I accepted an IPA with the state of Iowa where I had the privilege of developing a growing state program to handle the water quality planning, construction grants, and NPDES requirements of PL 92-500.

In 1977 I returned to EPA in the Construction Grants Program and because Water Quality Planning Branch Chief in 1978 during the 208 Program "glory" days. I moved to Construction Grants as Branch Chief in 1981 and to my current position as Water Compliance Branch Chief in 1983. Our Branch is responsible for most Clean Water Act programs, including water quality planning and standards; nonpoint sources; and NPDES permits, pretreatment, and enforcement.

I enjoy the outdoors and with my wife, Jaci (who is also an engineer and EPA employee), and our two daughters reside on a small acreage where we spend our spare time riding and caring for our horses.

ELIZABETH JESTER

Chief, Monitoring Branch, AWPD, OWOW

My career has spanned (even began before) the "environmental movement" that surfaced in the 70s. In fact, I remember winding up a Vietnam protest on the Boston Common, and watching in amazement as everyone around me begin picking up their trash, and thinking that the environmental was going to be the next big movement. And indeed it was. I got to the field just before everyone else decided to look for jobs in the area. My first was with the Massachusetts Audubon Society, (not just for the birds) involved with banning DDT, inland and coastal wetlands issues, and writing lots of articles for lots of publications. Exciting times, exciting issues, and I was permanently hooked.

Went from there to design and run an Environmental Action Resource Center at a regional museum in Connecticut, working with planning and zoning commissions, again on wetlands, and again writing multiple publications, including one on natural pesticides.

Moved to be the Assistant to the Commissioner of the Connecticut Department of Environmental Protection, working with Conservation Commissions and Planning and Zoning Commissions on wetlands and land use (remember when we could talk about it?) in specific and the totality of State and Federal laws in general.

Moved to Washington to run the citizen participation, and then, thanks to Chuck Spooner, who became my boss, the impact assessment efforts for the 208 plan at the Metropolitan Washington Council of Governments. Was thrilled to hear one of LaJuana's Management Advisory Group members praise 208 and say its major problem was that it was ahead of its time. I can stop leaving it out of my biographies now, which I thought I should do when I saw the EPA reaction to my mentioning 208.

Once the plan was out, took a short "interesting" foray into the Feds, working for President Carter's U.S. Regulatory Council analyzing the major regulations all the Federal agencies put out. My intended six month "I'm in DC so I should get a Federal overview" turned into a multiyear stay which lasted through the Reagan Administration disbanding of the Council. They kept my project, which turned into the Regulatory Information Service Center, funded by a complex action that is still not understandable, but got absorbed into the Office of Management and Budget.

There designed a computer system that collected and analyzed information on all x,000 regulations all Federal agencies issue, and oversaw the analysis.

Finally realized I wanted to come back "home", so quit to take a sabbatical and get back into the environment. Sabbatical lasted three weeks because Rebecca Hanmer offered me a job I felt I couldn't refuse (someday I'll get that sabbatical), so came to EPA to do the State Funding Study looking at the shortfall States faced to implement the 86 and 87 Clean Water Act and Drinking Water Act amendments, and how to get alternative financing to make up the shortfall.

Became the Chief of the Water Policy Team in the Water Policy Office, and now Chief of the Monitoring Branch, which seems to synthesize all the past - information systems, assessment. I love the job, and in between doing it I sing Gilbert and Sullivan, opera, and concert recitals, pat my cats, read, plant and weed, and do anything I can in, on, or around the water or in the woods.

Karen S. Klima
Branch Chief
Marine Ecosystems Assessment Branch
Ocean and Coastal Protection Division

I grew up in middle Georgia but escaped to graduate from high school while traveling with a musical group know as Up With People. A college education in biology and chemistry during the Earth Day heyday led me to a job doing water quality surveys and basin planning for the State of Georgia. I got my graduate degree in environmental engineering, married, and moved to Washington, D.C. where I worked in the EPA construction grants program doing advanced wastewater treatment reviews, needs surveys, CSO modeling, and facility planning. To help implement the Ocean Dumping Ban Act, I moved to the marine and coastal program and stayed as Branch Chief to manage the marine point source program and the Anderson.

I live in Arlington, Virginia with my husband and 2 young sons - soon to begin kindergarten and second grade - and a 70 pound german shepherd. Free time centers around family activities. My husband and I juggle intricate schedules to make enough personal time for exercise, golf, and swimming. I try to stay awake at night long enough to read for fun. As working parents of young children, we find simple joys are the best right now.

JOHN LISHMAN
CHIEF, MARINE PERMITS & MONITORING BRANCH

I was born in 1950 in Washington, DC in 1950 and grew up there. I went to the University of California, San Diego where I got a BA in 1972. After that, I went to law school at American University in Washington, DC where I graduated in 1977. My principal interest in going to law school was to enter a career in environmental law. During law school I worked as a legal intern with the National Wildlife Federation, working on wetlands protection issues, innovative and alternative treatment techniques under the CWA Title II construction grants program, the Endangered Species Act, and the Rivers and Harbors Act of 1899.

After graduating from law school, I spent one year with EPA in the construction grants program as an attorney-advisor working on grantee procurement practices, bid protests, and construction safety issues. After that, I went back to law school for post-graduate work in environmental law with an emphasis on water law. I returned to EPA as an attorney-advisor in 1980 to work on the 301(h) secondary treatment waiver program, helping draft 301(h) decision documents and revisions to the 301(h) regulations. Following the creation of OMEP, I moved to the ocean dumping program.

I am married, with two children, a boy aged 7, and a girl aged 4.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

BIOGRAPHY

ROBERT F. "MIKE" MCGHEE

Mike McGhee has both a BS and Masters Degree in civil and sanitary engineering from North Carolina State University.

He has worked for EPA and its predecessor agencies for 21 years and is a registered Professional Engineer. His work with EPA has been at the Philadelphia and Atlanta regional offices and his assignments have included all aspects of water programs within EPA. Mr. McGhee, as a State employee, directed the water quality assessment and standards-setting program in North Carolina for four years. Mr. McGhee has served for two years in his present position as Chief of the Water Quality Management Branch in EPA's Region 4 office. His primary responsibilities include EPA's review of 404 dredge and fill activities, water quality standards, wasteload allocations and monitoring programs, as well as directing EPA's involvement in activities in estuarine and coastal programs in the Southeast.

John Meagher (pronounced Mah'-har), is the Director of the Wetlands Division in EPA.

The work of the Division includes:

- managing the agency's role in the implementation of Section 404 of the Clean Water Act. Section 404, which is co-administered by the Army Corps of Engineers and EPA, regulates discharges of dredged and fill material into waters of the United States, including most wetlands.

- assisting State, local and foreign governments in wetlands protection efforts,

- providing public information and education,

- promoting environmentally sound approaches in federal programs impacting wetlands, and

- improving the scientific data base for wetlands protection

John joined EPA in 1973 in its Rochester, New York field office doing water quality monitoring of Lake Ontario and its tributaries. In 1975 he moved to EPA Headquarters in Washington, D.C., in the municipal wastewater treatment program, and subsequently worked in the National Environmental Policy Act program before joining the wetlands program in 1981.

He holds an undergraduate degree in civil engineering and a Master's degree in environmental engineering, both from Manhattan College in New York.

MARIAN MLAY

I was born in Pittsburgh, PA, at a very early age. Some of my first recollections are of the environment. It used to turn me and the curtains black with soot requiring us both to be washed at rather frequent intervals. Early local pollution control laws alleviated this situation to my great relief.

Through grade, high school, and my Freshman year of college, I was an aspiring musician--French horn. I concluded, however, the pay was low, and one likelihood was I'd end up as a high school band and chorus director, a fate I felt I didn't deserve. Besides the neighbors were complaining. So I turned to political science and decided to "ask not what my country could do for me" and came to Washington as a Management Intern at the old DHEW.

I worked through a variety of assignments: The Cuban Refugee (Health) Program; Medical Referral Services for Men Rejected from Military Service; Certification of Priorities of Care Under Medicare and Medicaid, ever honing my skills at outwitting personnel and budget offices.

That was about the time I discovered that both blondes--and program officials had more fun and began my grand conversion. I received a fellowship at Princeton's Woodrow Wilson School for a year, served two years as Deputy Director of DHEW in Chicago and then moved to the PHS Policy Office where I learned the health policy game. I also co-authored a rather infamous document for my Assistant Secretary for Health which made such outlandish assertions as the need for National Health Insurance (a spiritual precursor of Groundwater Protection Strategy). I also attended nite law school and obtained a J.D. and *voila* -- a Program Person.

I then moved on to EPA's PED and then the Drinking Water Office. This is where my opportunity of a lifetime came along....it was called **GROUND WATER!!!** A ripe, policy-making plum for the picking, or so I thought. I could do something original. I could make a difference! I could frustrate the blazes out of myself! Ah well, Administrator after Administrator, strategy after strategy, the fledgling program trudged on.

Currently, as I bask by the Ocean near Rehoboth, and gaze out over the porpoises swimming through the waves confident that OCPD and I are there to care for them, I know I am home at last (programmatically speaking)!

In my spare time, I continue to enjoy music--opera and ballet; travel (especially international); food; mysteries (wanna trade?); my two fat cats and my many dear friends.

CARL MYERS

Deputy Director, AWPD/OWOW

"I'm an engineer, but there's still hope (I hope)!"

Entering Johns Hopkins in 1966 as a math major who subsequently gave up on trying to understand n-spaces (3 dimensions plus time is confusing enough), I retreated into engineering science (BES, 1970). Blessed with a high draft lottery number and an FWPCA fellowship, I completed a masters program at Stanford in 1971, emerging as an environmental engineer (the new name for sanitary engineering adopted by the department while I was there).

EPA was formed. For a good reason at the time, I came back East (having grown up in the Washington, DC suburbs) to work for EPA Headquarters, starting in ORD (acid mine drainage research). I quickly transferred to Water Programs to work in basin planning and construction grants (facility planning, not cement). I became a registered Professional Engineer (and proud of it).

In 1976, I left EPA to work for local government (Fairfax County, VA) on water, sewer, and stormwater as part of the then radical PLUS (planning, land use, services) program. (PLUS attempted to tie development and zoning to the phased provision of government services [highways, sewers] with environmental protection as a major objective. PLUS was ultimately stuck down by the Virginia Supreme Court as an unconstitutional taking of private property rights.) I survived numerous public hearings: "Exactly where in my backyard do you intend to put that awful, Communist sewer?"

My L.U. appetite whetted, I rejoined EPA in 1978 to work on the 208 program which was then receiving substantial funding. As 208 evolved, I eventually came to lead EPA's initial NPS program during the mid-1980s (before 319 and $ and CZMA). The first NPS Report to Congress (1984), several Administrator's NPS Task Forces, fun with OMB, regulatory vs. voluntary, and depending on the kindness of strangers (USDA) followed. As part of a major OWRS reorganization in 1989, the NPS group was merged with the old MDSD to form AWPD; I became the Deputy Director of AWPD, retaining that position when AWPD recently joined OWOW.

My wife Tillie (self-employed marketing consultant) and I are paying a mortgage in Arlington, VA, and raising our 5-year old daughter, Sarah. I personally hand-apply best management practices to Little Pimmit Run, a small stream in my backyard needing constant maintenance and dredging to ameliorate NPS loads from upstream. My "spare" time usually involves carpooling Sarah and her friends to swim team practice/meets, ballet lessons, tumbling, etc. Sarah and I participate in the YMCA Indian Guides program for fathers/daughters (my Indian name is Running Water).

BRUCE NEWTON

Chief, Watershed Branch
Assessment and Watershed Protection Division, OWOW

I first got my feet wet (literally) growing up on Long Island Sound where I spent much of my free time mucking about in marshes and messing about in boats. I attended Ohio Wesleyan University in the corn belt (a major change of scenery) and studied ecology, graduating with a B.A. in botany and chemistry. The conventional wisdom at the time was that you couldn't make a living in ecological science so I opted for engineering.

Rutgers University offered me the best deal for graduate study (the Department was fat with several EPA grants in the mid-1970's). Being an old turd herding program dating back to the turn of the century, I got a strong dose of sewage and cement. My research, which gave me as much bench chemistry experince as I could stand for a lifetime, concerned changes in the speciation of metals during sludge composting (and was immediately used by the State in their sludge application rules)

I joined EPA in 1979 working in the Permits Division for Bill Jordan. I worked on a broad range of issues but came to focus primarily on toxics control. I developed the 1984 toxics policy (although Rebecca Hanmer deserves all the credit for getting it out) and wrote the TSD along with Rick Brandes and Betsey Southerland. In 1985 I jumped ship to the RCRA program "where all the action was." I hated it. With the newly gained knowledge that the water program really is the best-working and most interesting program in the Agency, I moved back within one year to head the monitoring program in the old MDSD. I became the Branch Chief in Spring, 1990, and when AWPD reorganized this last Spring took the newly established Watershed Branch.

My wife Wendy (a city planner) and I have a 6 year old daughter, Elissa, and a 4 month old son, Andy (who is still keeping us up at night). In what little spare time we have we enjoy gardening. Although we had to trade-in my boat for the daughter, we still enjoy sailing when we can.

JOHN T. PAI

Who is he?

I was born in Hupei Province in the mainland China as the youngest of six children in the family. (One of my early lessons for survival in a large family was to eat fast because, as they say, time and food wait for no one). My family engaged in what we would now call agri-business. We had a large farm with good soil. People were hardworking. Still, the living was hard. The reason was water, either too much or too little of it. We would have flooding and disease one year and then draught and hunger a couple years later.

I majored in hydraulics and hydrology in college. In graduate school, I chose water resource management and operations research. (I don't want to mention the names of my schools or professors to protect their reputation). Throughout my graduate study and for several years after that, I worked as a Registered Professional Engineer for an environmental engineering consulting firm in Chicago and got involved in the early stages of the Construction Grants Program and the Areawide Waste Management Planning Program. The apex of that career was managing the study and design of the world largest POTWs - Chicago MSD Southwest Sewage Treatment Plant with a design capacity of 1,400 MGD.

I joined EPA in 1975 with the belief that my ground level experience could be helpful to carry out its mission. I started in the Construction Grants Program as the Chief Engineer responsible for troubleshooting in engineering design. Later, I was responsible for user charge, industrial cost recovery and pretreatment. When the Office of Marine and Estuarine Protection was established in 1984, I first served as Chief of the Marine Permits and Monitoring Branch in the Marine Operations Division and later as the Chief of the Technical Services Branch in the Technical Supports Division. In OWOW, I am the senior analyst in the Policy and Communication Staff working on strategic planning related issues such as Watershed Protection Initiatives and Regional liaison (I hope this National Program Meeting will be a huge success).

My wife Susan and I have a 22 year old daughter who just graduated from University of Virginia and will go to law school this fall, and a 20 year old son, a junior in the College of William and Mary. I enjoy almost everything from reading (any subject) to sports, but tend to feel lost in a large and aimless crowd. I also enjoy well-kept gardens in my neighbors' yard.

Rich Pepino
Chief, Environmental Assessment Branch
Region III

I joined EPA as a summer hire in 1976, and again in 1977 working on the Chesapeake Bay Program. When the Bay acquired some additional positions, I officially became a PFT in 1978. Prior to 1976, I taught school for 11 years starting in high school and moving on to college. I have wandered, rather aimlessly, through a variety of programs during my EPA career.

However, my greatest experience has been with NEPA. My present job includes Wetlands, NEPA, Estuaries, Oceans, and Planning. I have been in this position about one year. I followed Randy Pomponio in this job, and walking in his shoes, especially on wetlands issues, is an enormous challenge.

I am very happily married and have three wonderful children. My teenage son is currently up for sale and I'm taking bids at the meeting. I'm a member of the faculty of Drexel University and Cabrini College.

SUZANNE E. SCHWARTZ

Deputy Director, Wetlands Division, OWOW

Yes, I'm a lawyer, and yes I'm from New York . . . yes, the City (and I love it)!

Now that that's out of the way: I went to Queens College in New York. I started out as a biology major, but didn't like cutting up dead things -- I think it was the fetal pig that did me in -- so I became a math major instead. Although I enjoyed mathematics, I couldn't think of anything useful I would want to do with it for the rest of my life. Therefore, I did what any college kid with no idea of what to do would do.

I went to law school. I wanted to become an environmental lawyer. It was a brand new field at the time, and I wasn't exactly sure what environmental lawyers did, but I was sure it was for me. At Columbia University Law School (yep -- still in New York) I was very involved in student body environmental activities, including a Council that was very involved in wetlands issues under the State's tidal wetlands law (this is the start of a pattern).

I meant to stay in New York, but when I graduated law school the Natural Resources Law Institute at Lewis and Clark Law School in Portland, Oregon made me an offer I couldn't refuse. I had to teach one seminar after a year of research into the regulation of wetlands and coastal zones. For that I got paid!

That was only a one-year fellowship, so it was back to New York for me. But it's hard to aim well from 3000 miles away, so I wound up in D.C. instead, with the Environmental Law Institute. They hired me to start up the National Wetlands Newsletter in 1978, and I am proud to say that it is still going strong today. However, in 1979 the Newsletter was losing money, so I was doing contract work as well as putting the Newsletter out.

One of those contracts was for an obscure group in EPA, headed by a not-so-obscure Section Chief, Dave Davis. I took advantage of the revolving door we hear so much about, and in 1980 came to work for EPA on State wetlands programs. Except for a brief stint working on integrating marine waters policies (a good idea that finally seems to have caught on!), I've been with the Section 404/wetlands program at EPA ever since.

I really didn't mean to stay in D.C. this long. But at EPA I met and fell in love with an engineer (I still can't believe it, but then he can't believe he married a lawyer), Robert Crim. With a house in Arlington (with an addition we built), a stepson in the Virginia college system, a dog (a BIG dog), and a couple of cars (okay, BIG cars), I guess we're here to stay. In my little bit of spare time I tutor a woman in basic literacy, ride a tandem bicycle with Robert (the real cyclist in the family), and do some black and white photography (Robert's also the real photographer).

Ref: BIO

BIOGRAPHICAL SKETCH

Name: Dale J. Vodehnal

Education: Bachelor Degree in Civil Engineering
University of Nebraska
1966

Masters Degree in Environmental Engineering
University of Nebraska
1967

Current Job: October 1986 to Present
Chief State Programs Management Branch
U.S. Environmental Protection Agency
Region VIII, Denver, Colorado
(Region VIII includes the States of Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming)

I currently manage a Branch of scientists and engineers responsible for the management and implementation of a variety of environmental protection programs in EPA Region VIII. These include the wetlands protection program, nonpoint source control program, water quality standards program, Clean Lakes program, as well as activities associated with the Colorado River Salinity control program and various International Joint Commission activities.

Affiliations: Water Pollution Control Federation

Society of Wetland Scientists

Licensed Professional Engineer

Birth Place: Ord, Nebraska

Marital Status: Married with three children.

FCD:November 19, 1990:vodehnal/dv/BIODALE

Bio - OWOW Branch Chiefs Meeting

Mary Lou Soscia
Acting Branch Chief, Coastal Protection Branch

Born in Washington D.C., moved to Virginia Beach where I developed my love for the outdoors and the water. I went to Virginia Tech where I majored in Sociology and Geography. Attended Graduate School at the University of Maryland and received a Master's in Geography with a specialty in water resources and environmental policy. While in school I interned for American River Conservation Council and the Environmental Policy Center.

My first job in 1978 was with the Maryland Department of Natural Resources where I developed 208 plans for Maryland watersheds. I has heavily involved in agricultural issues (RWCP) and acid-mine drainage. I then worked in the flood management program and helped communities develop watershed plans, helped industries handling hazardous materials to floodproof their facilities and generally promoted community flood plain management.

From there I went to Wyoming in 1982 to develop a state flood plain management program. While there, I developed a watershed management plan for the Big Horn drainage area, developed a vast number of public information and educational materials, provided technical assistance to Wyoming communities on how to develop flood plain management ordinances (which were often designed to protect wetlands as well), managed a large hydologic study of the Snake River, and was on the Board of Directors of the Association of State Floodplain Managers.

I came to EPA in 1985 and set up the State/EPA Committee in External Affairs. Having done that I moved on to Office of Federal Activities to work on Indian and wetland issues. I came to OMEP in 1986 and was involved in the early development of the NEP and NCW programs.

In my free time I am committed in community recycling efforts and established recycling education programs in pilot middle schools last year. This program won a national award through the Junior League. I am continuing to head up this effort this year. I also garden, sail, take pictures, and have fun with my dog.

Bob Wayland

When oil from Union Platform A washed ashore in Santa Barbara, I really didn't expect that more than 20 years later I would be reporting that it had been a major influence in my career. A few years after the spill, I became Legislative Assistant to Congressman Charles Teague, who represented Santa Barbara. I instituted an environmental newsletter for his constituents, and began closely monitoring issues at EPA, and conferring with the Agency's Legislative Director, leading eventually to my first EPA job. Seven years earlier, I started my first Hill job during my freshman year at George Washington University. I progressed from envelope stuffer to legislative assistant during 5 years with California's Senator George Murphy. When his re-election bid was unsuccessful, I got my first taste of the Executive Branch, at the National Transportation Safety Board. In 1973, I jumped at the chance to try the House side of the Capital, and was really stimulated by the array of environmental issues confronting Mr. Teague's District. Condors, transportation control plans, and, of course, legislation to cancel leases in the Channel were among the recurring topics of our environmental newsletter. Alas, Mr. Teague unexpectedly passed away less than a year after I joined the staff.

So in 1974 I traded the marble hallways of the Longworth Building for Waterside Mall, with its 2 floors of shops and restaurants! My tenure on the Hill, and the 7 years I spent in Congressional Affairs at EPA taught me the importance of coalition building. A key to forming alliances is establishing trust, and that means dealing straightforwardly and honestly with both adversaries and allies.

The best thing about the early '80's, when I moved to the Office of Enforcement and then OSWER -- and about which I should write a book -- was that I took the opportunity to get involved in local government. As a planning commissioner in Falls Church, I got a taste of decisionmaking that directly affected neighbors and the qulaity of life in our community.

When things turned around at EPA, I was really fortunate to find myself working for Lee Thomas, first as OSWER's Policy & Communications Staff director, and then as a Special Assistant when he became Administrator. As an SES candidate, I rotated to an exhilirating stint as chief of Region III's Superfund Branch, and then to OPPE as Acting DAA for JacK Campbell. Linda Fisher asked me to become "permanent" DAA when she was appointed AA. We endeavored to turn OPPE towards a more "customer-oriented" direction, reinforce the value of management with our Office Directors, Division Directors and Branch Chiefs, and to reach out to Regions.

Jimmy Buffett sings, "Mother mother ocean, I have heard your call. I've wanted to sail upon your waters since I was three feet tall." Me too. Summer camp on Bogue Sound in North Carolina was where I first had the chance. Now we take a sailing vacation in even years, and get a day sail in once in a while. My wife Susan and I also snorkle coral reefs whenever we can!

BIOGRAPHY OF DOV WEITMAN

I was born in 1952, and grew up in the "nice" part of New Jersey -- northwestern N.J., in a little community called White Meadow Lake. I grew up across the street from the lake, with woods behind my house (and behind my friends' houses too). Ever since then, I've lived in less environmentally pleasing environments than lovely New Jersey -- how's that for irony!

I graduated Yeshiva University with a B.A. in mathematics in 1973; Harvard Law School in 1976; and worked for a law firm in Newark, N.J. for two years. I hated private practice, came to work for EPA in 1978, and have happily been with EPA ever since.

I began at EPA in the Permits Division, working for Leonard Miller (and alongside such staffers as Geoff Grubbs and Bill Diamond) on the NPDES program during 1978-80. I then joined OGC, where I remained for nine years (1980-89). At OGC, I authored many of the original RCRA regulations on hazardous waste treatment and land disposal; worked on Superfund programs; and did a lot of pretreatment work (including lots of litigation). I also did a lot of wetlands work in the last two years there. But I take most pride in the work I did to help write the effluent guidelines regulation for the organic chemicals, plastics and synthetic fibers industry and then successfully defend it in the U.S. Court for the Fifth Circuit against the largest onslaught EPA has ever faced in such an appellate litigation (30 industry petitioners and NRDC filed 750 pages of briefs; EPA filed a 450-page brief in response, not counting any of the attachments).

Since November 1989, I have been Chief of the Nonpoint Source Control Branch.

Outside of work, I have two main sets of interests. First is my wife Alice, who is a CNM (certified nurse-midwife) specializing in home birth, and my two stepchildren, Jennifir (20) and Ben (17).

Second, I play a lot of music of different sorts on guitar, mandolin, recorder, fiddle, dobro, bass, etc. I perform with various groups and individuals in the Washington area and sometimes out of town (e.g., Seattle and Philadelphia). My music ranges from folk to rock and blues to jazz. Most of my performing consists of Jewish music (klezmer, Yiddish, Israeli), Spanish dance music, and other traditional music. Some years back, I was a member of a country music trio consisting of me, an NRDC attorney, and the Chief of the Justice Department's Environmental Defense Section; we called ourselves Sagebrush Rebellion!

Louise P. Wise
Director
Policy and Communications Staff

I was born in Jackson, Mississippi where I spent most of my childhood riding my 20-year old horse in the swamps (I mean wetlands) or fighting with my twin brother. We "twins" were the youngest of five children, and of those five, the three who did not know what to do when they grew up became lawyers (was this because our father, all of our grandfathers, and all of our uncles were lawyers? Notice none of our aunts were lawyers).

In the late 60s, I attended Vanderbilt University in Nashville, Tenn. (which was considered to be "the North" by my family) where I studied French and English (evidence that I still didn't know what I wanted to do when I grew up). I then went to Georgetown University Law Center for law school in Washington, D.C., and hence my move to D.C. where I've been ever since.

After law school, I went to work for a judge as a law clerk, met my husband who was an assistant U.S. Attorney at the time, and married him. I then went to work for a law firm that specialized in keeping pesticides like Chlorodane on the market. I essentially spent the next five years on FIFRA section 3(c)(1)(D), a very lucrative provision for big chemical companies.

Finally, I got wise (get it?), and decided to join EPA. I began in the Office of General Counsel working on RCRA and Superfund issues. After two years there, I joined the AA for OSWER's staff to work on groundwater issues and LUST (that's what we called it, Win Porter was the one who wanted it changed to UST). After about a year, I actually joined the UST office as a Division Director, and had the pleasure of ushering the UST rules through the "system." (We did it in record time considering that we received about 5000 comments). I then took a job as special assistant to Jim Barnes and Lee Thomas on RCRA/Superfund issues. Then, when it was time for Lee and Jim to leave, It was Jim Barnes who advised me to talk to Tudor Davies about becoming his Deputy, which I did, and voila, ended up in the Fairchild building with a nice view of the Capitol.

All during this time, I was having three Irish kids (Liam - 8 yrs., Terence - 5 yrs., and Conor - 2 yrs) and singing in the church choir.

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Office of Wetlands, Oceans and Watersheds
National Branch Chiefs Meeting

July 28 - August 1, 1991
Charlottesville, Virginia

Customer Survey Results

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Appendix 1: Office of Wetlands, Oceans and Watersheds Customer Survey

Regional Participants

Region I

Ron Manfredonia

Region II

Mario Del Vicario
Bruce Kiselica
Dan Montello
Janice Rollwagon
Richard Spear
Robert Vaughn

Region III

Charles App
Victoria Binetti
Chuck Kanetsky
Robert Kramer
Richard Pepino

Chesapeake Bay Program

Charles Spooner

Region IV

Wesley "Beau" Crum
Mike McGhee

Region VI

Russ Bowen
Richard Hoppers
George Horvath

Gulf of Mexico Program

Doug Lipka
William Whitson

Region VII

Larry Ferguson
Kerry Herndon
John Houlihan

Region VIII

Dale Vodenahl

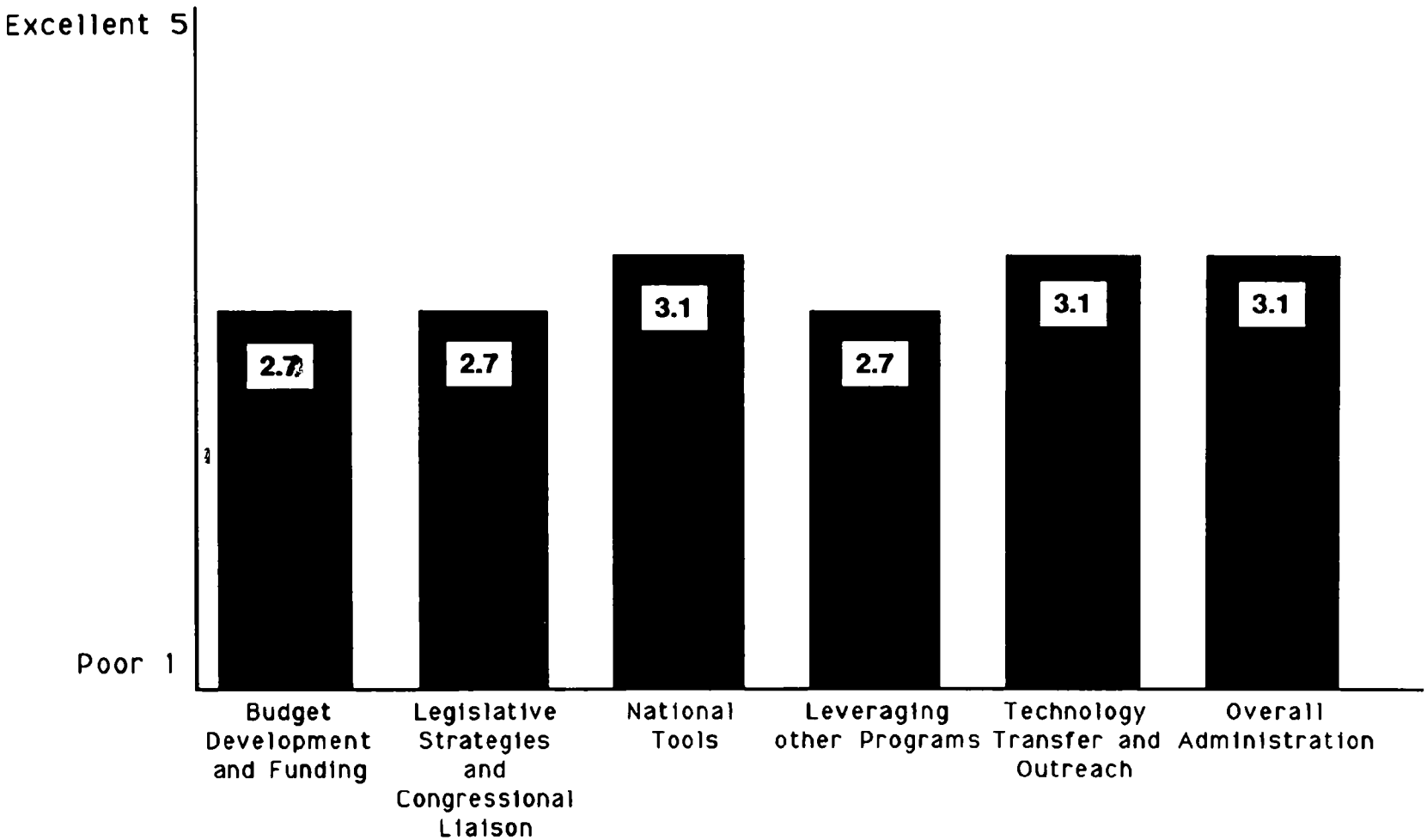
Region IX

Loretta Barsamian
Catherine Kuhlman

Region X

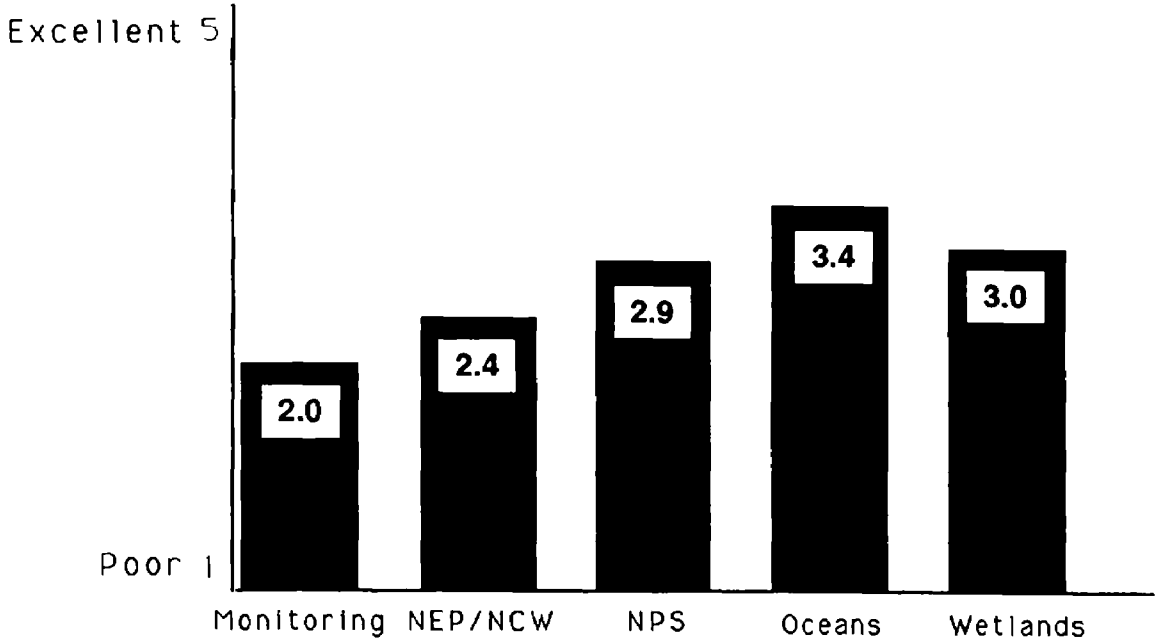
Ron Kreizenbeck
Ron Lee

OWOW-Wide Average Rankings by Service



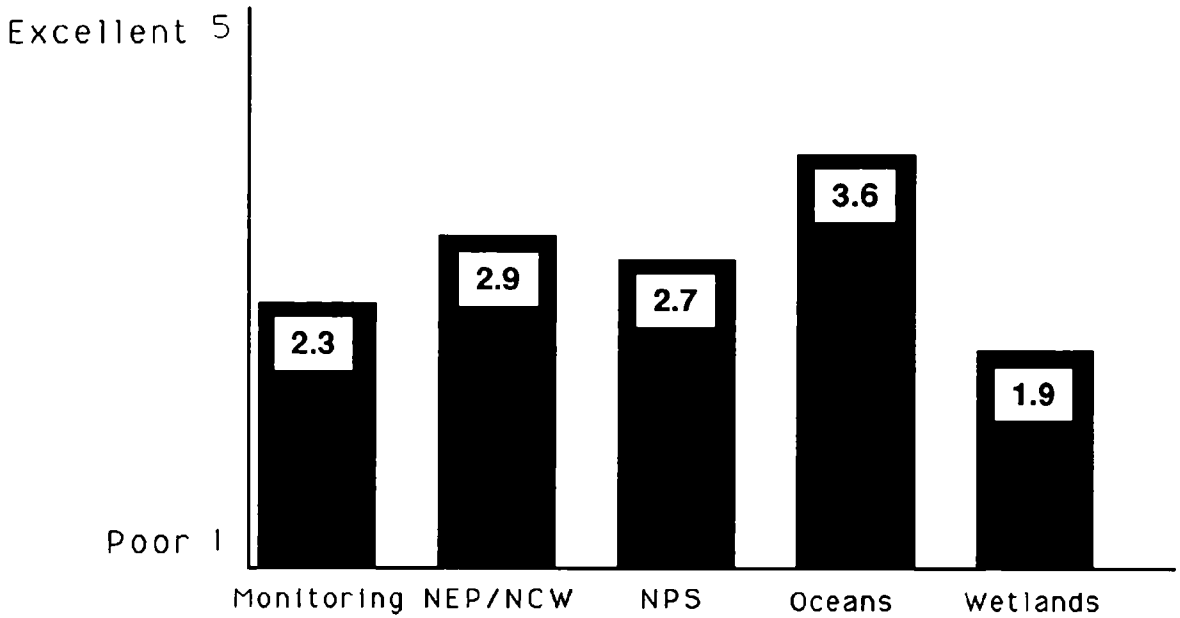
Program Specific Rankings by Service

Budget Development and Funding



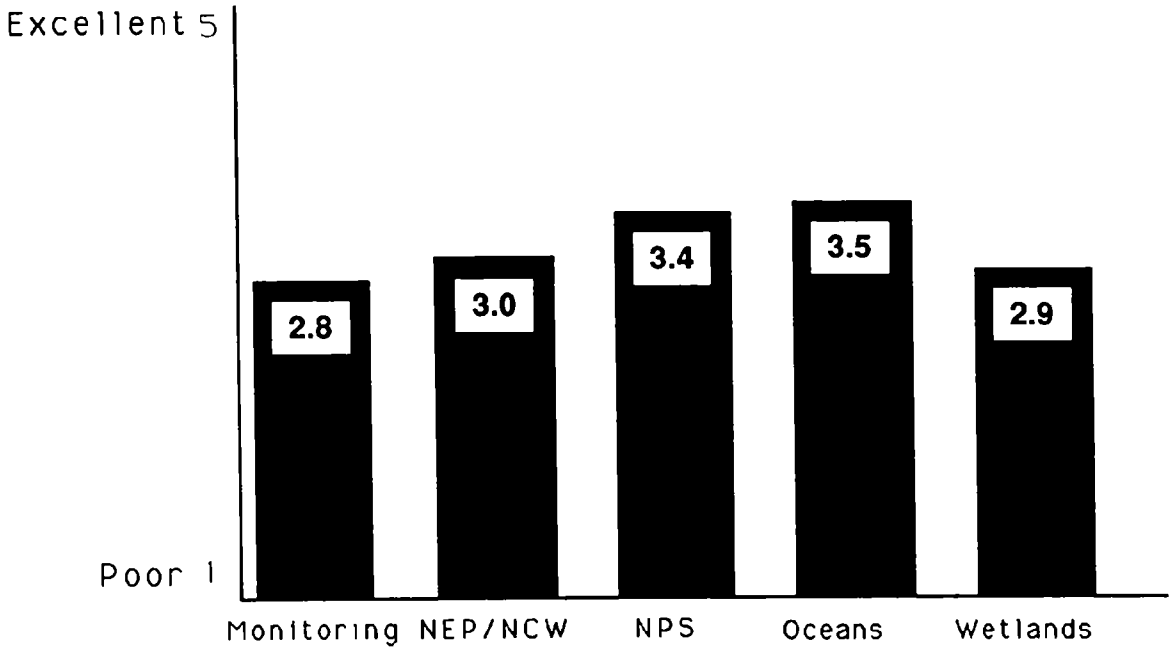
Monitoring	NEP/NCW	NPS	Oceans	Wetlands
■ – mystery – no involvement by Regions ■ Losses of FTE every year ■ Need dedicated state resources	■ Development process good but implementation weak ■ NEP 5 year plan provided but funds delayed – again, puts $ in jeopardy ■ NEP workplan comments late ■ Confusion about NCW pilot eligibility ■ Inappropriate for HQ to pick NCW/Action Plan priorities ■ Need to notify Regions when $ being transferred	■ Heroic efforts to convert $ to FTE ■ Competition for support $ time consuming and ineffective ■ Allocation formula not focused enough on problems ■ Need to streamline process for getting $ to Regions ■ Good support to certain geographic programs	■ Better -- no particular problems	■ Seriously underfunded – HQ must be more aggressive in budget development ■ Excellent sharing of resources with Regions ■ HQ must assume stronger role in resource allocation to Regions – current process time consuming, ineffective

Legislative Strategies and Congressional Liaison



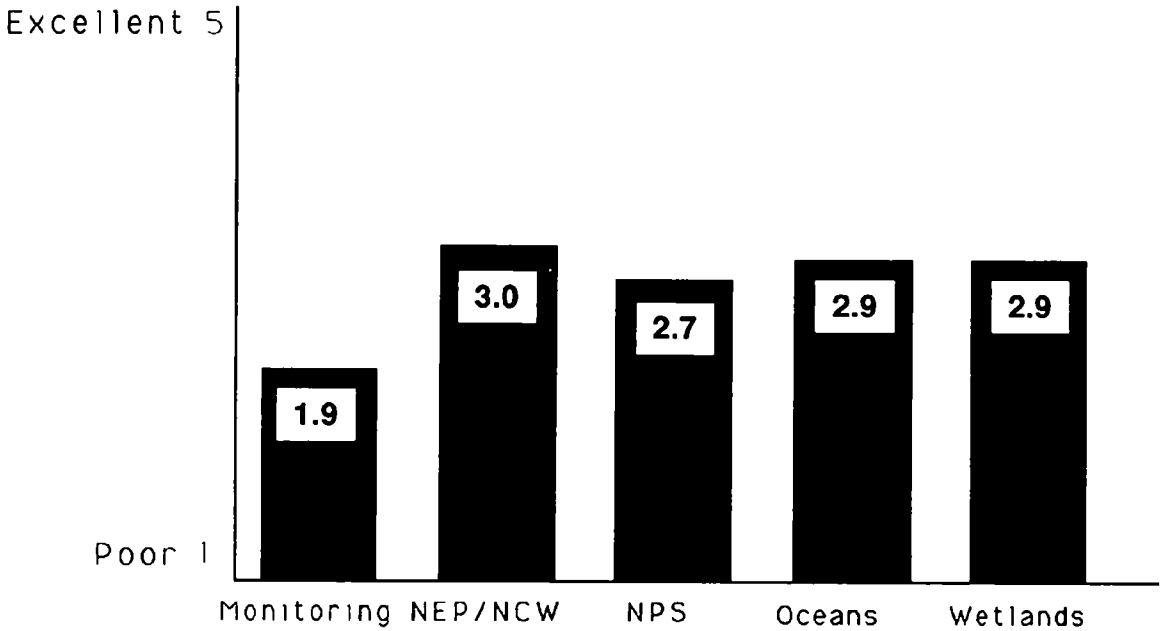
Monitoring	NEP/NCW	NPS	Oceans	Wetlands
■ Liaison statement very important to CWA – no strategy currently ■ Should have interacted more on HSS-HAOWA studies	■ Unclear who is driving CWA process ■ Not well coordinated with Regions	■ Good liaison with Congress, but not aware of any overall strategy ■ Unclear where headed or who is driving ■ Need to get on top of agriculture and mining issues	■ No significant problems	■ Responsive to congressional questions but no overall strategy ■ Must be much more aggressive, less reactive ■ Poor job communicating with outside interests ■ Less of a team spirit with Regions than in the past

National Tools



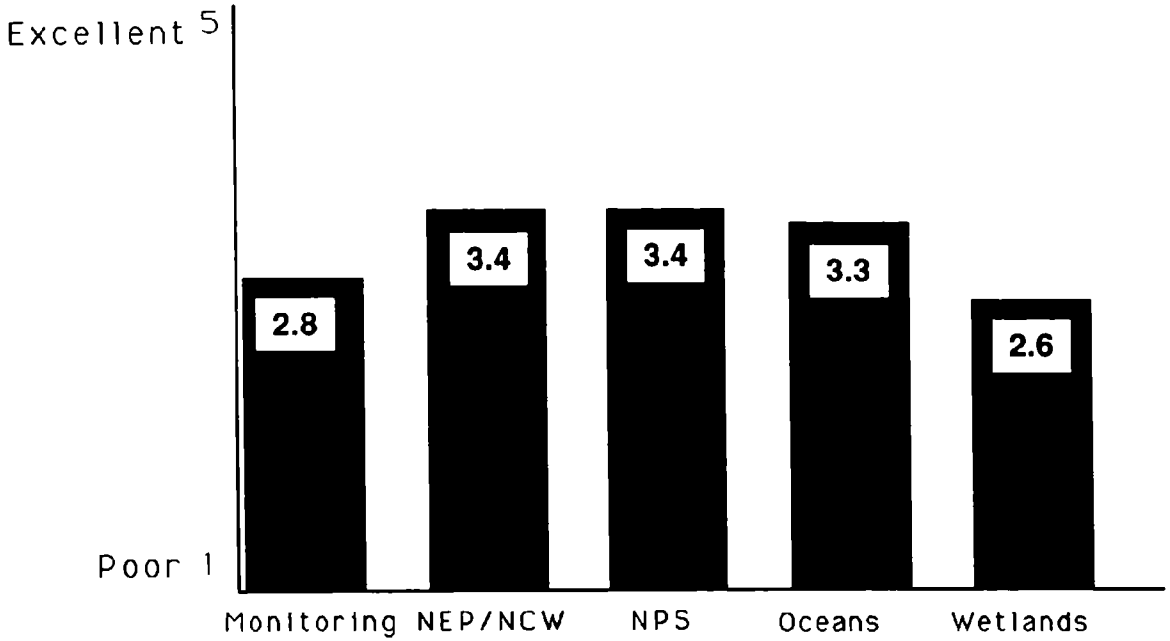
Monitoring	NEP/NCW	NPS	Oceans	Wetlands
■ What happened to needs identified in Framework for Change document? ■ TMDL guidance good ■ Water Body tracking system well received ■ Training needs STORET, water body tracking system, use of assessment tools	■ OK for most part, but still missing NCW guidance	■ Newsletter great ■ Excellent support, responsive to regional questions ■ Pleased with guidance, now need to focus on priorities ■ Good job in meeting CZM deadlines ■ Still need national grants tracking info system	■ ODBA support very good ■ 301(h) guidance great ■ Slow on regulation revisions, Green Book ■ Need secondary equivalency guidance, COE MOU revisions, more on ocean dumping enforcement	■ Problem with delineation manual--input was tolerant-uncharacteristic ■ Mitigation banking needs strengthening ■ Some unresolved regulatory issues with COE ■ Agriculture strategy never materialized ■ Still need 404 enforcement training

Leveraging Other Programs



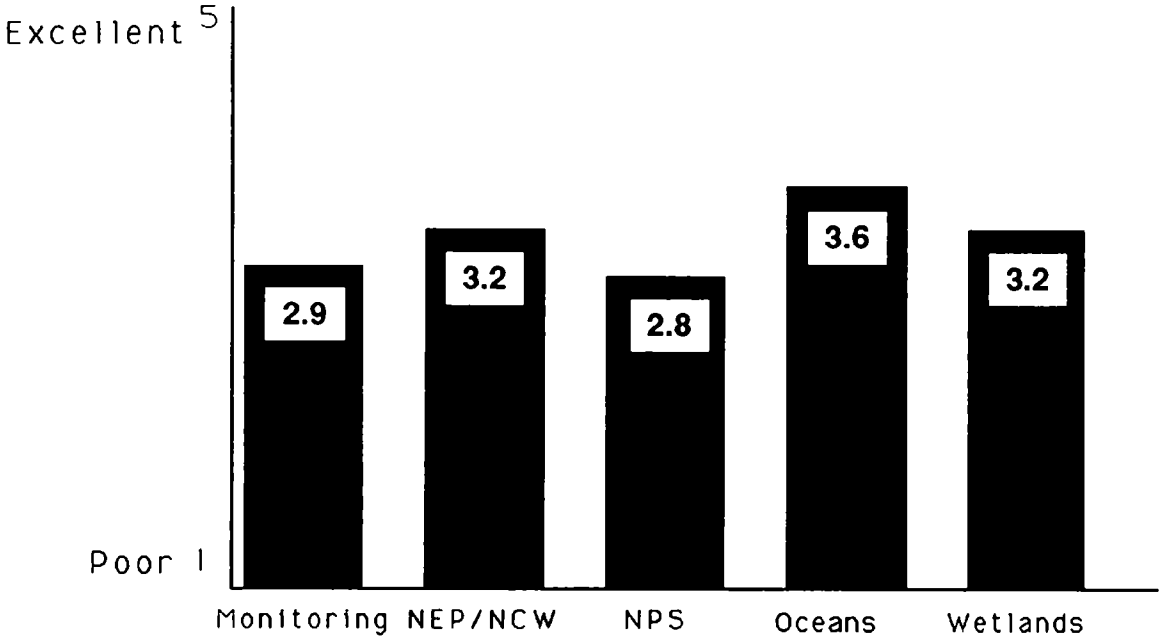
Monitoring	NEP/NCW	NPS	Oceans	Wetlands
■ Serious problems within Agency - both HQ and Regions ■ Operates in a separate world - don't use data/ assessments to drive decisions ■ Need to work better with OST on biocriteria ■ Need information on BI [illegible]	■ Progress -- A for effort ■ Credible job in a tough area ■ Good work with permits ■ Don't drop the ball on post-CCMP activities ■ Need more coordination with enforcement activities ■ Could use geographic programs more effectively	■ Positive signs with other agencies ■ Effective in leveraging SRF programs in States ■ Needs continuing work with NOAA on CZM, integrated guidance with groundwater, better coordination with OPPE, more attention to USDA ■ Everyone else trying to leverage nonpoint program - could be a problem!	■ No significant issues	■ Improvements, but could do better ■ Pretty effective in working with standards and nonpoint source ■ Needs work with superfund, sediment strategy, enforcement - judicial referrals, farming community

Technology Transfer and Outreach



Monitoring	NEP/NCW	NPS	Oceans	Wetlands
■ Responsive to training requests ■ Greater needs than resources	■ Good support ■ Do more to communicate Regional approaches / innovations ■ Some confusion over which are most important meetings	■ Excellent newsletter ■ Huge improvement ■ Items of interest sent to Regions periodically	■ No comment	■ Need to actively market value of program - to help defend Agency from attack ■ Outreach to Regions on delineation manual unpleasant experience ■ More work needed with private sector, farming community

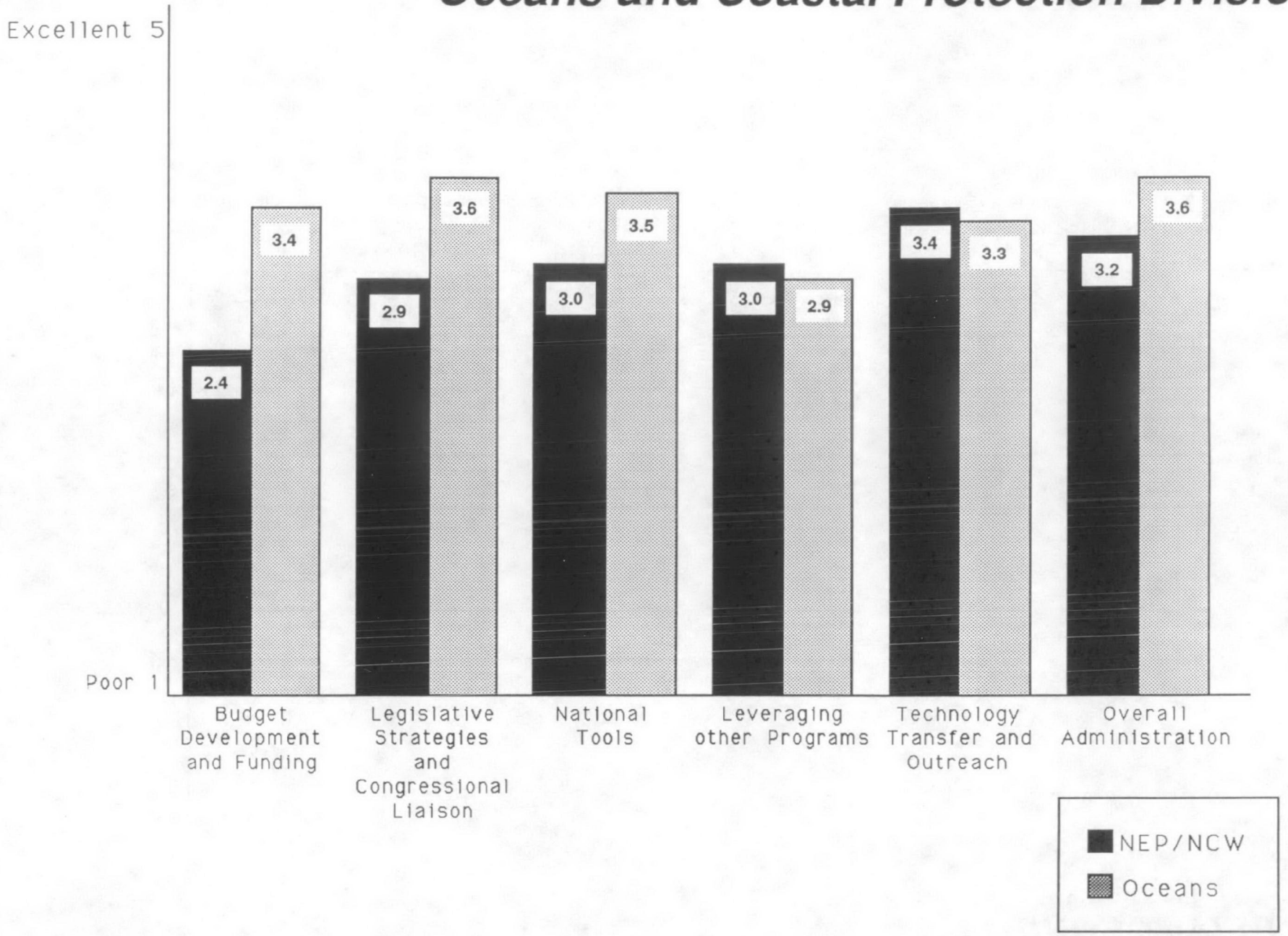
Overall Administration



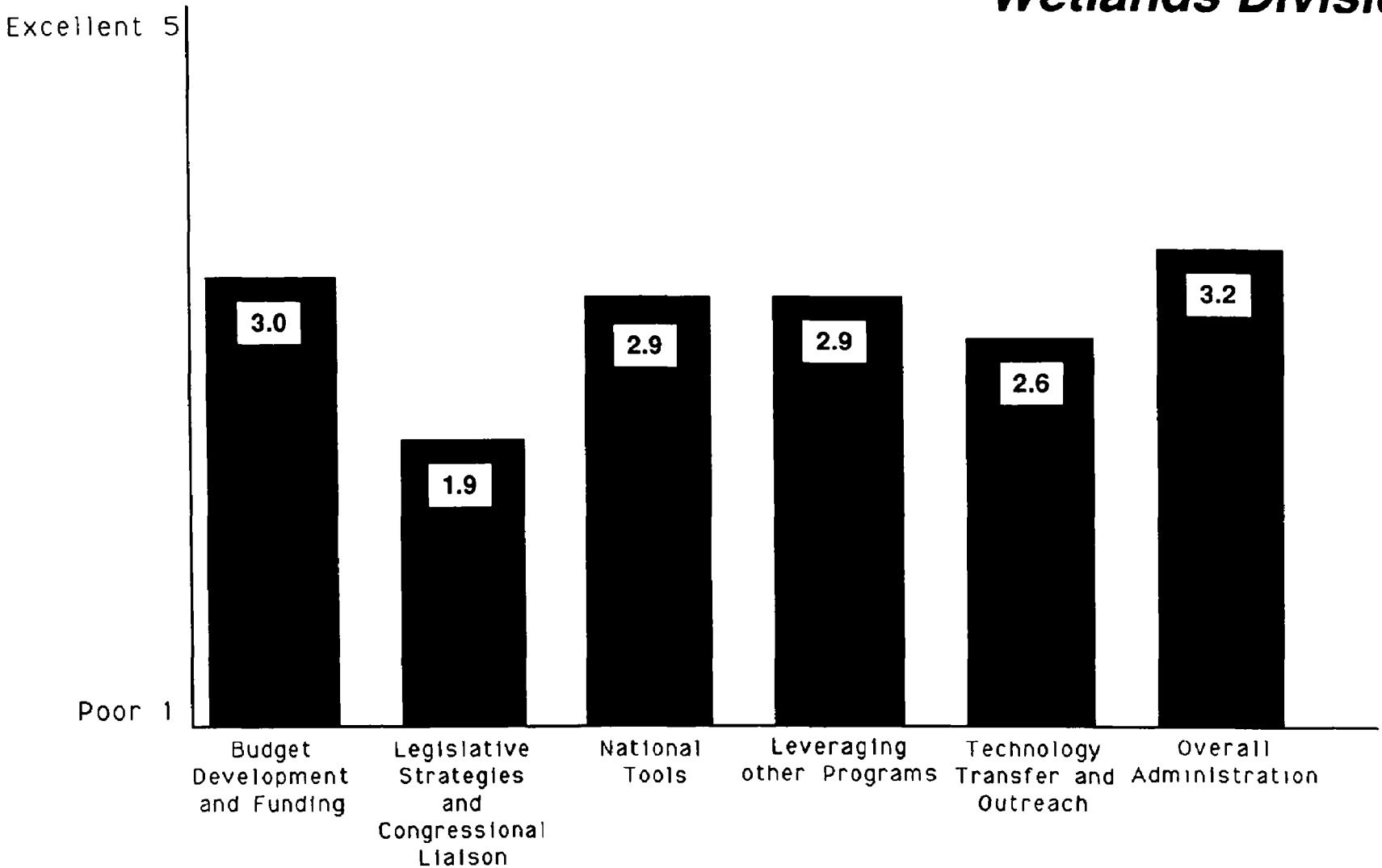
Monitoring	NEP/NCW	NPS	Oceans	Wetlands
■ Real positive signs last 6 months in interaction with Regions ■ Need to develop a shared vision and focus ■ Just think through what's really important to states	■ Good - generally responsive to resolving policy issues ■ Some direct communications with estuary programs without letting Regions know	■ Staff has been very responsive ■ Tendency to micromanage - too focused on details ■ Need to get overall policy defined - involved Regions more in policy development ■ Some lack of understanding of western problems	■ Good job with so few people ■ Need to focus on priorities and get products out	■ Generally good partnership spirit with Regions and good service ■ Could make better use of Regional expertise ■ Some problems with keeping Regions up to speed ■ Need new list of contact points

Division Rankings by Service

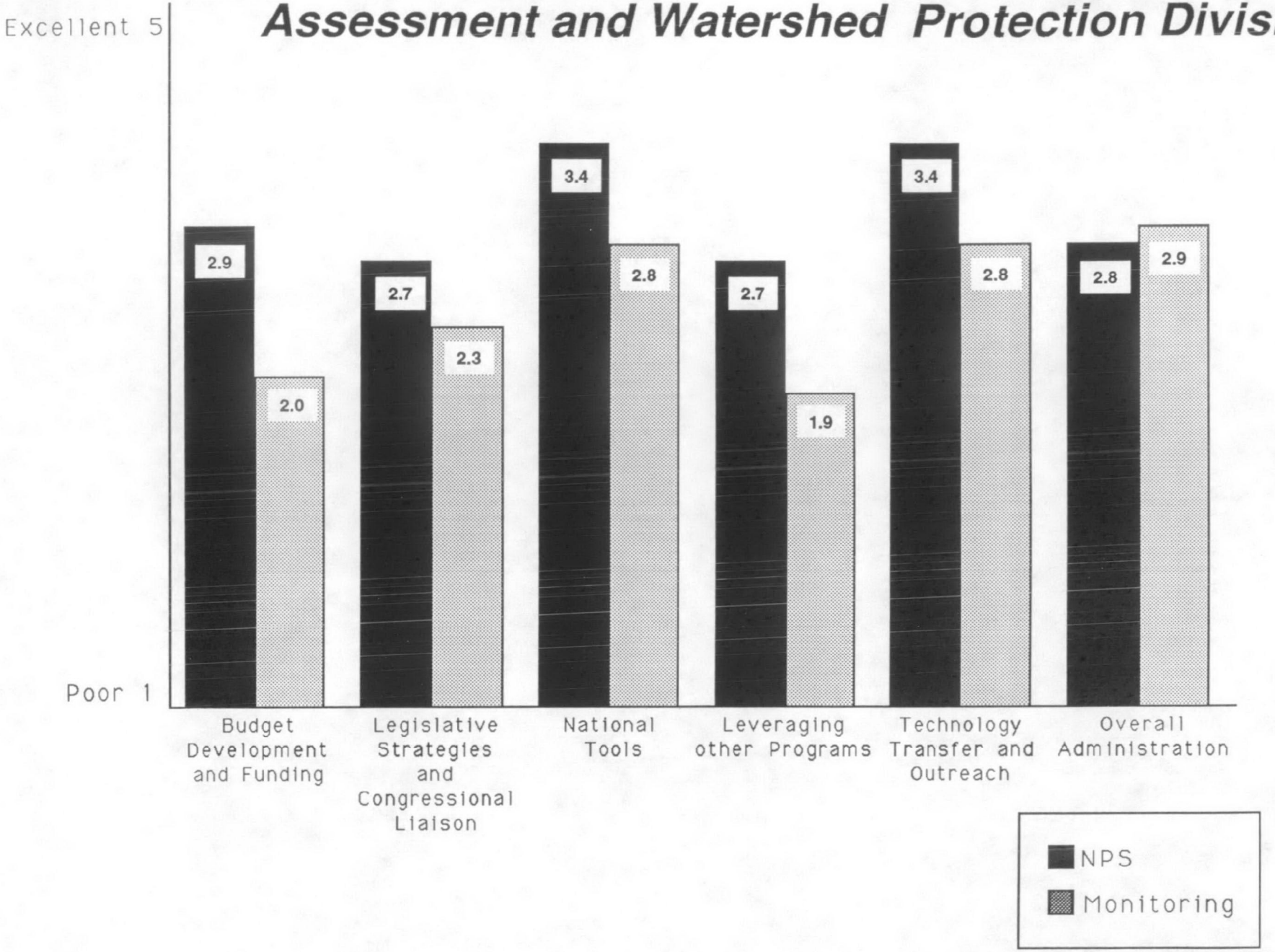
Oceans and Coastal Protection Division



Wetlands Division



Assessment and Watershed Protection Division



OFFICE OF WETLANDS, OCEANS AND WATERSHEDS
RESULTS OF CUSTOMER SURVEY
July 1991

REGIONAL SUGGESTIONS --- IMPROVING OVERALL OWOW SUPPORT

PLANNING AND BUDGETING: Provide more leadership. Set clear national direction and priorities. Need a more integrated OWOW budget -- particularly for overlapping programs, such as NCW, WPI -- currently too many diverse pots of money. Need travel increases to support additional positions. Provide more attention to Administrator priorities of strategic planning and Total Quality Management.

RESOURCE ALLOCATION: Explain the process used to allocate and distribute funds and how regional input is used. Be more timely in getting resources out to the Regions. Need stronger HQ role in workload models -- should arbitrate disputes over allocation issues and make decisions on some rational basis. Lead region concept does not work effectively on resource allocation issues -- one Region devoted approximately a year's worth of effort to the wetlands workload model this year.

PROGRAM AGENDA: Staff are working extremely hard on existing activities. Finish the current agenda before adding any new initiatives. For any future initiatives, discuss with Regions what might already be in place in the field to address the issue.

LEGISLATION: Be more aggressive, especially in wetlands -- have been too vulnerable to Congressional attacks.

LEVERAGING OTHER PROGRAMS: Facilitate other agency and other office participation in OWOW programs. This involvement will be the difference between success and failure of OWOW programs.
Perhaps a HQ communication strategy for each agency/office would be a useful tool.

NATIONAL MEETINGS: Plan these meetings well ahead of time and be cognizant of regional constraints in making decisions about concurrent programs, travel and site location.

REGIONAL INVOLVEMENT IN POLICY: Seek more opportunities to use Regional expertise. Make better use of regional short term details to work on specific issues, such as the regional details to HQ to work on a nationwide wetlands permit.

REGIONAL SUGGESTIONS --- IMPROVING COMMUNICATIONS BETWEEN OWOW AND THE REGIONS

NATIONAL MEETINGS:

- Use the customer survey to identify issues so that the upcoming national meeting can be focused on issue resolution Get beyond the dialogue. Each program should pick one or two issue areas for discussion at the national meeting and develop action plans to address them. Meetings should also be used to develop consensus for the program agenda.

- OWOW sponsors many national meetings -- need to support Regions with travel and look for other ways to ease costs of participation.

- Conduct a national OWOW-wide meeting each fall and continue having Division specific meetings each spring. Important to continue separate forums for resolution of Division issues.

- Include Monitoring Branch Chiefs in appropriate meetings.

- Include Office of Science and Technology issues on agendas and invite appropriate staff.

- All meetings should be well planned and facilitated. Meeting objectives should be clear, action items should be developed during the meeting and followup tracking of actions should occur. Oceans meetings have been good as models.

- Other vehicles for communications are also important. Conducting a meeting every 6 months will not be sufficient.

CONFERENCE CALLS:

- Monthly conference calls should be used by Divisions to review "hot" items, as recently conducted by Wetlands. Important to keep these calls open and frank. Calls should also be used to solicit input on HQ projects.

- Office Director should also conduct periodic conference calls with the Branch Chiefs.

INFORMATIONAL MATERIALS:

- Build on the positives of the Divisions. Nonpoint Source newsletter is excellent. Office-wide Updates are good as well.

- Branch Chiefs need monthly highlights to identify key areas for attention. There is a materials overload and it's hard to determine what's important to OWOW.

- Continue the practice of sending OWOW information packages to multiple levels in the Regions -- helps shore up regional communication problems.

- A new key contacts list is needed.

- An annual calendar of events would be helpful -- developed and circulated by each Region, geographic office and OWOW.

REGIONAL REVIEWS:

- Reinstitute HQ visits to the Regions for mid-year reviews. Include other Regions in these visits.

REQUESTS FOR COMMENT:

- Regions should always have 5 days to respond to HQ requests. -- after allowing time for receipt.

- OWOW Divisions tend to use the same Regions over and over again for input. All Regions are interested. If time prevents a comprehensive review, requests for input should be rotated among the Regions or a key contacts list should be used -- based on Regional expertise.

- Regions need feedback when their views have been solicited.

- Include Regions on workgroups for policy input -- the Monitoring Division has begun doing this effectively.

PERSONNEL DETAILS:

- Explore more short term personnel details between HQ and Regions -- look for creative solutions to the travel issue.

OTHER:

- In general staff to staff communication has been good. There has been less communication with Branch Chiefs across the programs.

- HQ reviews of Regional workplans, etc. have been time consuming and not value-added.

- Regions need to receive annual Operating Guidance by April of each year.

- HQ should inform Regions, as a courtesy, when communications have occurred between HQ and NEP programs -- or to verify feedback received from other sources.

- HQ should continue to explore ways to share Regional expertise across the Regions and to teambuild between OWOW and the Regions.

- Communications within OCPD have been confusing -- NEP responsibilities cross both Branches.

- In addressing communications issues, be careful not to lose strengths of individual programs -- i.e. strong wetlands network, camaraderie among Regions.

REGIONAL COMMENTS --- DEVELOPING A COMMON VISION

APPROPRIATE GOALS

- OWOW functions are supported by the SAB Reducing Risk report, Water Planet 2, Wetlands Forum, etc. -- thus the long term strategy has been set by experts, citizens.

- Currently goals and objectives appear to be in a state of flux -- i.e. wetlands "no net loss". Need to get out front with wetlands in particular.

- OWOW should build a common vision among its programs, one that builds on the strategic themes and geographic initiatives. The vision should articulate how the Office will move the Agency forward, identify what is needed from other federal agencies, how the Watershed Protection Initiative can be used to advance the vision and how success will be measured.

- Any overlaps among initiatives, such as Coastal America and WPI should be addressed.

- The vision should be realistic in terms of funds availability at both the federal and state levels, should be sensitive to the issue of political will, and assure that real needs can be met in addition to the implementation of mandatory functions.

- Need to emphasize waters of the U. S. -- both inland and coastal -- HQ is currently somewhat fixated on estuarine areas.

- OWOW should provide leadership in communicating the vision and expand outreach capabilities.

- Use the Clean Water Act reauthorization process to reinforce the vision.

- Specific recommendations for programmatic goals:

  -- tighten the nonpoint source program to deal with the most serious problems,

  -- increase wetlands and nonpoint source resource base,

  -- increase enforcement authority for both CWA and MPRSA,

  -- accelerate reuse of dredged material for resource enhancement,

  -- implement CCMPs,

  -- evaluate CZMA state enforceable policies for effectiveness,

  -- integrate resource monitoring with ocean and ground water monitoring -- look at the aquatic resource as a whole,

-- conduct short term demos for TMDL's in complex watersheds, and

-- increase S & E base for OWOW programs.

PROGRAM INTEGRATORS

WATERSHED PROTECTION INITIATIVE has potential -- exactly the way we should be *doing business in the 90's. Solid approach by OWOW thus far -- 6 month phase-in* needed. Still too focused on coastal areas. AA must communicate importance of this initiative to get other offices on board -- permits, enforcement, groundwater. Potential handicap is the political fallout of picking areas. Important for Regions and States to see HQ incentives. A few Regions claim to still be out of the loop.

NATIONAL ESTUARY PROGRAM is also an important integrator -- OWOW should not let WPI diminish its importance -- must commit to what we have underway now.

INTEGRATED GUIDANCE should be required -- wetlands/nonpoint source and *wetlands/water quality standards have been good products.*

Votes were also cast for the nonpoint source, wetlands, near coastal waters, and stormwater programs and the use of TMDLs as important program integrators.

Targeted programs still suffer from turf problems within the Regions. Must recognize that Regional and State infrastructures are not necessarily conducive to these initiatives. Also have been subject to resource cuts at HQ and Regions.

OPPORTUNITIES/BARRIERS FOR OFFICE DIRECTOR ATTENTION

MONITORING

- Monitoring programs at EPA operate in another world -- must do a better job of using data and assessments to drive other program decisions. Needs a focus and shared vision. Monitoring mission statement very important.

- Rapid bioassessment/biocriteria offer promise -- need to expand to riparian areas/ecoregions for NPS.

NATIONAL ESTUARY PROGRAM/NEAR COASTAL WATERS

- A continuing federal role in the NEP, post-CCMP, is very important to watershed success. If OWOW walks away, will have trouble selling other targeted approaches. NEP programs are opportunities -- at a minimum EPA should continue the identity and coordinate activities.

- Need a rational process for selecting/targeting NEP and WPI areas.

- NCW lacks definition and an identity -- provides a good opportunity for leveraging others, focusing resources.

- Coastal America process is very cumbersome -- too much scrutinizing of projects after consensus has been built at the Regional level.

NONPOINT SOURCE

- Keep up the good work with Department of Agriculture -- needed for continued progress in NPS. Need overall policy focused on pollution prevention (with OPPE, OGWP, OPTS). Perception, based on attendance at workshops, that Agriculture taking the program more seriously than EPA.

- NPS implementation -- need to work with States to focus attention. Continue to work with NOAA on CZMA program guidance.

OCEANS

- Corps of Engineers site designation activities and acceptance of management and monitoring plans -- revision of MOU.

WETLANDS

- Must get out of reactive mode. Be aggressive in championing fixes to real problems.

- Wetlands delineation manual -- need to agree on message we're trying to communicate. Need to work closer with local governments -- need material.

CROSS MEDIA

- CWA Reauthorization -- needs concerted effort, particularly provisions for wetlands, ambient monitoring and status and trends, agriculture and mining, other land use issues.

- Habitat issues -- should decision-map which agencies are making decisions on living resources and habitats -- and move in.

- Beach nourishment issues relative to State Coastal Zone Management requirements.

- Dredge material disposal, given new criteria.

- Endangered Species Act -- Fish and Wildlife pushing for formal consultation on many EPA programs and influence over EPA resources.

- Lack of standards, i.e. sediment.

- OWOW should develop better understanding of the differences between east and west (arid climates).

- Should capitalize on TQM and Pollution Prevention.

- Must understand and show sensitivity to the overall economic situation of States.

- Look for better ways to achieve buy-ins of other programs -- NPDES, standards, groundwater. Program integration of goals and agendas.

REGIONAL/HQ ROLES

- Roles in OWOW somewhat unclear at this point -- Office Director and Deputy split of responsibilities, Division Director authorities.
- Some overlapping functions even within Divisions -- i.e. NEP responsibility in two Branches.
- OWOW role in legislation unclear -- appears that OW is leading and OWOW sometimes out of the loop.
- Need to sort out enforcement role.
- Avoid micro-management of Regions.
- OWOW could use thumbnail sketches of how other agencies have evolved -- COE, NOAA, FWS, USDA -- to help define EPA OWOW role; also look at evolving State interests.

REGIONAL COMMENTS -- DIVISION PROGRAM AGENDAS

OCEAN AND COASTAL PROTECTION DIVISION

- NEP CCMP support and life after CCMP.
- NCW strategy -- what is it -- need better understanding of how related to Coastal America.
- Ocean dumping enforcement.
- COE acceptance of management and monitoring plans for ocean disposal sites.
- Sediments strategy -- dredged material disposal, given more stringent criteria.
- Funding new NEPs.
- Budget process improvements.

WETLANDS DIVISION

- Legislative strategy.
- Objectives for "no net loss".
- Wetlands regulatory jurisdiction issues with the Corps of Engineers.
- Materials on wetlands value for the public. Providing a clearinghouse for Regionally produced materials.
- 404 enforcement training. Mixed signals on judicial referrals with Justice Department.
- Training on delineation.
- Outreach to farming community.
- Mitigation banking guidance.
- Budget process improvements.

ASSESSMENT AND WATERSHED PROTECTION DIVISION

- NPS mining and agriculture issues.
- Linkages between NPS and ORD -- both basic and applied research. Needs for rapid bioassessment to assess problems and progress.

- NPS national grants tracking system.
- NPS grants management and audit training -- must be prepared to deal with IG.
- Continuing planning process requirements for NPS -- needs immediate attention for resource implications.
- National strategy for integrating stormwater program with NPS.
- Requiring States to identify priority waterbodies for NPS to leverage USDA resources and 319 resources.
- Continued work with CZMA on NPS guidance.
- NPS allocation formula.
- Monitoring mission statement -- very important.
- Work with OST and ORD on monitoring guidance.
- Requiring standard 305(b) formats for States.
- Training on STORET, waterbody tracking system, using assessment tools.
- USGS NAQWA related to 305(b) and EMAP.
- Dedicated State monitoring resources for bioassays, biomonitoring, intensive surveys.
- TMDLs -- responsibilities between OWOW and OST.

OFFICE OF WETLANDS, OCEANS AND WATERSHEDS
CUSTOMER SURVEY

Introduction

The Office of Wetlands, Oceans and Watersheds (OWOW) has the opportunity to build an effective and efficient team, providing quality and timely products and services to its primary client, EPA Regional Offices. In developing this team, OWOW should build on the successes and expertise of its programs. OWOW should also seek observations and ideas from the Regions, as well as guidance from the Regions on their needs. This survey is planned as one way to solicit this Regional input.

I. Improving Services to the Regions:

1. Please rank from 5 (excellent) to 1 (poor) the following OWOW services in each major program areas: budget development and funding, legislative strategies and Congressional liaison, national tools, leveraging other programs, technology transfer and outreach, administration, other?

   The major program areas are wetlands, NEP/NCW, oceans, NPS and data and assessment.

2. What other services are important to you?

3. Do you have any suggestions for improving OWOW support in any of these areas?

4. Should any current OWOW activities be stopped or reoriented?

5. In general, how can communications be improved between OWOW and the Regions?

II. Developing a Common Vision:

6. What are appropriate short and long term goals?

7. Which programmatic functions can serve as integrators across the Regional and/or Headquarters offices? Which of these are most important to you?

8. What opportunities and/or barriers exist that should be addressed?

9. What are the most appropriate Regional/HQ roles to meet the goals?

10. Which roles need to be changed and how?

III. OWOW Program Agenda

11. What specific issues, within each program area, are affecting environmental progress in your Region?

12. Do you have any suggestions for resolving the issue(s)?

13. What new activities, in each program area, should be initiated in FY92?

14. What activities should be emphasized, stopped or redirected?

4

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

JUN 14 1991

OFFICE OF WATER

MEMORANDUM

SUBJECT: Draft Goal Statement and Process for the Watershed Protection Initiative

FROM: Robert H. Wayland III, Director
Office of Wetlands, Oceans and Watersheds

TO: Office Directors, Office of Water
Regional Water Management Division Directors
Regional Environmental Services Division Directors
Assistant Regional Administrator
for Policy and Management, Region VII

During the February Water Management Division Directors' meeting in Washington, we briefly introduced the Watershed Protection Initiative (WPI). Since then, we have been working with the Lead and Sub-lead Regions and other offices and have held two meetings with Regional representatives to further define this initiative. By now, you should have received the background materials and summaries of those two meetings.

At its core, the watershed approach begins with a focus on the condition of and threat to a watershed, rather than on any specific pollutants or sources as the starting point. A project manager, or "champion", for the watershed would enlist the participation of staff across the water programs, as well as other stakeholders, in developing an assessment of the watershed and an action plan to address impairments or threats. The workgroup concluded that this approach would be an appropriate and effective way to address threats to water quality, habitats, and ecosystems in a holistic and integrated manner. While the WPI is not a new program in itself, it provides an opportunity for the Regions to work with States, local governments, citizen groups, and other Federal agencies to develop watershed-specific action plans that address both traditional and non-traditional sources of pollution. Further, the action plans for watershed projects will help focus available resources, and aid in the development of technical and programmatic tools to successfully carry out the projects.

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The workgroup concluded that action plans in some selected watersheds are ready to be implemented at this time, and it will be valuable to gain experience in demonstrating and evaluating the value of this approach for FY91 and FY92. At the same time, we agreed that development of Region-wide, risk-based assessments of each Region's watersheds would provide an appropriate basis for future targeting. This assessment can be conducted by making systematic use of available information on water quality and the living resources dependent on waters and threats to these resources.

Therefore, the workgroup recommended implementing the WPI in two stages. First, for the short term, the Regions will propose, by August 1991, Initial Regional Implementation Plans for watershed protection activities. These initial plans should include a list of watersheds selected for targeted activities, and a description of an appropriate action plan for each of these watersheds for implementation in FY91 and FY92. Regions participating in the workgroup felt that 3-5 watersheds per Region would be about the right pace of implementation for FY91 and FY92. For each watershed, the Region would designate a "champion" who would work across water programs and enlist other stakeholders to formulate an assessment of problems and an action plan. Second, for the long term, the Regions will develop, by October 1992, Comprehensive Regional Frameworks to guide their long term activities for the WPI. Starting in FY93, the Regions will use these framework documents to target high priority watersheds. As part of the long term goals, EPA and the Regions will work toward permanent institutional changes that will empower States and other agencies to operate their programs in a manner that will achieve the WPI goals.

The workgroup also recommended that Headquarters develop a goal statement, a schedule and process for the short and long term plans, and an outline for the initial and comprehensive Regional framework documents. In accordance with these recommendations, we have enclosed a draft goal statement, schedule, process and outline for your use in developing the initial implementation plan due August 1991. We welcome your comments or suggestions and will revise this draft accordingly for your use in developing the comprehensive Regional framework documents.

OWOW's role in this process is to facilitate the development and implementation of the Watershed Protection Initiative. I have asked Louise Wise to be responsible for policy and management of this initiative. Bruce Newton, Chief of the Watershed Branch, will be responsible for providing technical support. Please provide your comments or suggestions, and the contact person in your Region for this initiative to John Pai of Louise's staff at 475-8076.

We are enthusiastic about the WPI and feel that it will significantly advance the water program by providing an ecologically sound way for States to approach water quality problems and to develop and implement holistic solutions. I hope you will give this initiative your full support. Please let me or Louise know how we can serve or assist you. We can be reached at 382-7166.

Enclosures

cc:

Martha Prothro, OW
Bob Pavlick, OW
Martha Kirkpatrick, OW
Art Koines, OPPE
Norb Jaworski, ORD-NERL
Cynthia Dougherty, OWEC
Ed Kramer, OWEC
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Fred Leutner, OST
Ramona Trovato, OGW/DW
Betsy LaRoe, DAO
Vivian Daub, OW/WPO

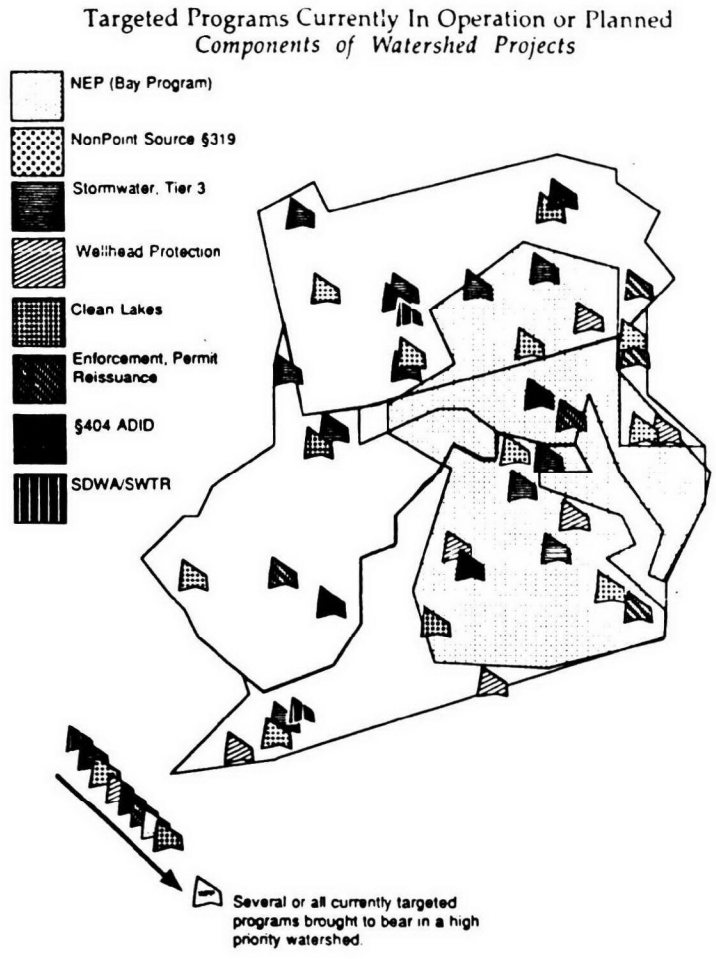
The Watershed Protection Initiative:

Toward Holistic Resource Protection

Office of Water
U.S. EPA

THE WATERSHED PROTECTION INITIATIVE

Targeted Programs Currently In Operation or Planned
Components of Watershed Projects



THE WATERSHED PROTECTION INITIATIVE

Activities Since the FY92 Budget Proposal

In the FY92 Watershed Protection Budget Initiative, we described a two-prong geographic targeting approach to achieve the above goals.

- ❑ Formed workgroup comprised of five Regions, OW offices, OPPE, and ORD
- ❑ Held two workgroup meetings (February and March)
- ❑ Developed proposed list of short- and long-term actions
- ❑ Drafted "Framework" to guide HQ and regional activities

THE WATERSHED PROTECTION INITIATIVE

Recommended Goal and Objectives of the WPI

To re-orient EPA and state programs to address watershed protection in a holistic, integrated manner

1. **To promote a risk-based, geographically targeted approach so that federal, state, local and private decisionmakers* can:**

   - **focus resources on highest priorities**
   - **tailor efforts to the needs**
   - **coordinate and engage other stakeholders**
   - **address all problems, including non-chemical stressors and habitat modifications**

* Also involves other decisionmakers; e.g., federal and private landowners such as the Nature Conservancy

THE WATERSHED PROTECTION INITIATIVE

Recommended Goal and Objectives of the WPI (cont.)

To re-orient EPA and state programs to address watershed protection in a holistic, integrated manner

2. **To identify gaps in our national ecological protection "tools" and promoting their development and transfer to local decisionmakers**

3. **To create a broad understanding at all levels of the watershed protection approach**

THE WATERSHED PROTECTION INITIATIVE

Workgroup Recommendations

- We should take a "regional " approach to selecting targeted watersheds
- Regions should be allowed to tailor their approaches to the needs of particular watersheds as long as their approaches satisfy the WPI criteria of:
  - making risk-based selections
  - engaging the stakeholders
  - addressing the watersheds in an integrated, holistic manner

Workgroup Recommendations

(cont.)

- Integration should begin at home (within the water programs)
- Regions should encourage and guide state and local decisionmakers to routinely address watersheds"holistically"

THE WATERSHED PROTECTION INITIATIVE

Two-Prong Action Plan

1. Short-Term Action Plan: *Initiation of Regional Watershed Projects*

   The purpose of the initial regional projects will be to practice the approach, develop credible case studies and lead by example.

2. Long-Term Action Plan: *Institutional Changes*

   Our longer-term action plan includes institutional changes to promote the watershed protection approach, including comprehensive regional planning and realigning existing priorities and accountability measures as needed.

THE WATERSHED PROTECTION INITIATIVE

I. Short-Term Action Plan: *Initiation of Regional Watershed Projects*

Headquarters Action Items:

- ❑ Develop framework and schedule (May 91)
- ❑ Identify barriers and incentives (July 91)
- ❑ Develop inventory of data bases and sources of other information/assistance (July 91)

THE WATERSHED PROTECTION INITIATIVE

I. Short-Term Action Plan: *Initiation of Regional Watershed Projects*

Regional Action Items:

- ❑ Develop initial framework for FY91/92 and list initial projects (summer 1991)
- ❑ Continue ongoing activities in previously targeted areas
- ❑ Build state/local/public support

THE WATERSHED PROTECTION INITIATIVE

II. Long-Term Action Plan: *Institutional Changes*

Headquarters Action Items:

- Develop technical tools (e.g., inventory of data sources, models, indicators, NPS-oriented criteria, monitoring methods, BMP effectiveness data, etc.)
- Harmonize priority setting and targeting criteria of currently operating base programs
- Provide flexibility to devote resources to watershed projects
- Support outreach and tech transfer among regions
- Promote holistic, integrated watershed management through a public information campaign

THE WATERSHED PROTECTION INITIATIVE

II. Long-Term Action Plan: *Institutional Changes*

Regional Action Items:

- ❑ Synthesize existing information on highly valued, threatened and degraded watersheds
- ❑ Develop region-wide comprehensive framework documents that establish milestones and provide a plan for measuring progress (September 1992)
- ❑ Develop and implement action plans -- including measurable indicators of progress for selected watersheds based on comprehensive framework (October 1992 and beyond)
- ❑ Report on measurable indicators of progress (annually)

THE WATERSHED PROTECTION INITIATIVE

Region IV Watershed Protection Initiative Activities

Set a goal:

- ❑ Reduce ecological and human health risks in critical watersheds

Activities Completed:

- ❑ Established criteria for targeting watersheds
- ❑ Developed a process for developing and implementing action plans in targeted watersheds
- ❑ Established management structures for each watershed protection project:

  - ✔ A Region IV coordinator and an EPA team with members from relevant base programs
  - ✔ An external coordinating committee with members from key federal, state, regional, and local agencies, industries and citizen groups

THE WATERSHED PROTECTION INITIATIVE

Region IV Watershed Protection Initiative Activities (cont'd)

Action underway:

- Identification of waterbodies at greatest risk using 303(d) lists, 305(b) report, 304(l) list, state 319 assessment and management reports, NEP, NCW and Region IV's comparative risk analysis

Potential resources available for FY91/92:

- NCW, the Coastal America initiative, refocusing of state water quality monitoring, NPS grants, Clean Lakes Program grants, Region IV discretionary funds and funds from other non-EPA sources

THE WATERSHED PROTECTION INITIATIVE

Relationship of WPI to Existing Programs

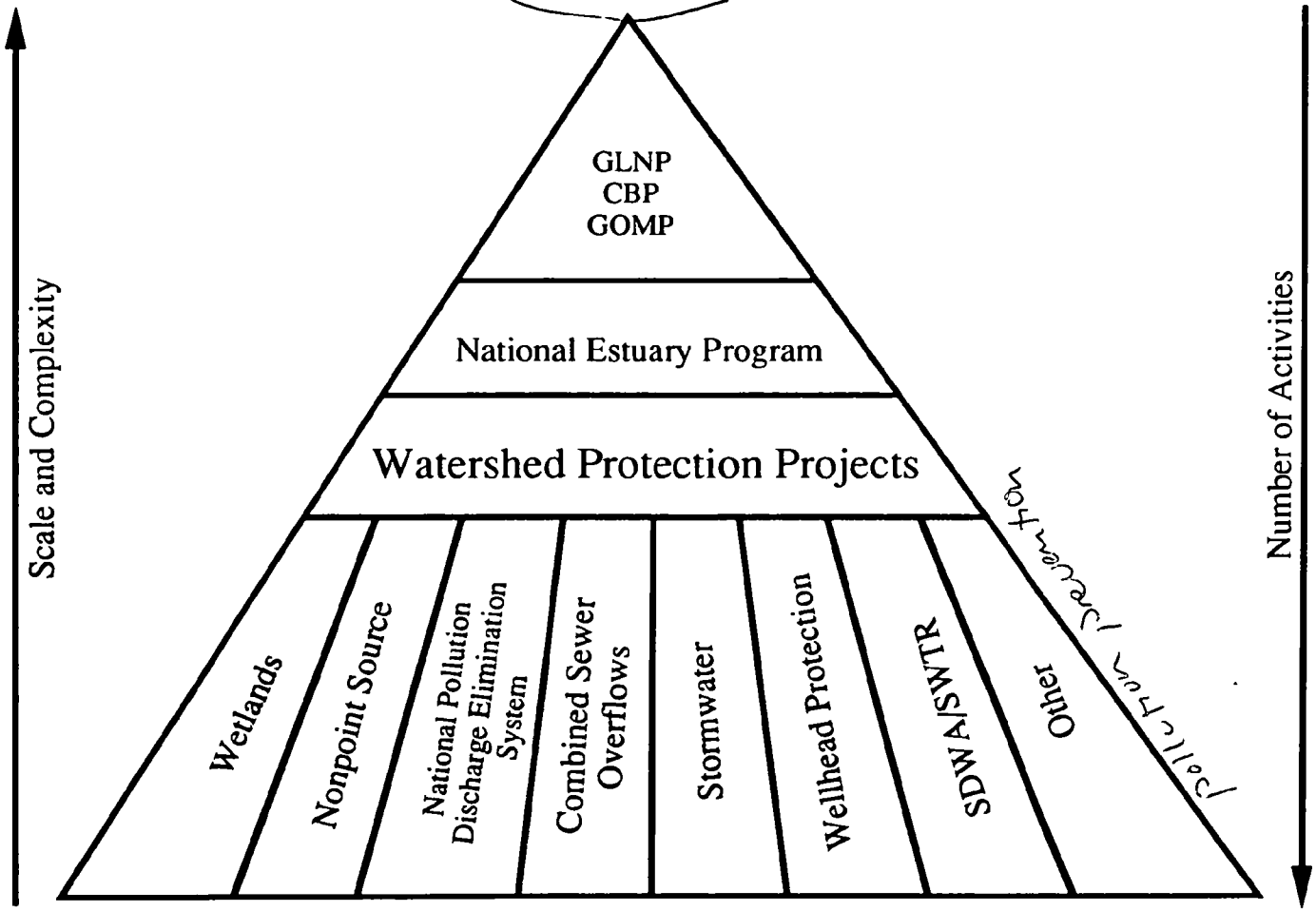
- Not a new program, but an effort to re-orient how existing programs operate
- Will be implemented in FY92 by redirecting base resources and applying portions of any FY92 increases
- Will complement and build on other targeting programs (Great Water Bodies Initiative, Coastal America, and NEP)
- Will be promoted and managed by OWOW but, to be successful, must be a water program-wide initiative (all OW and regional water program functions)

Relationship of WPI to Existing Programs (cont.)

- Within OWOW, PCS will provide general policy and program direction
- AWPD/Watershed Branch will provide technical support
- Other OWOW Divisions will participate in context of their program or functional responsibilities (as well as other appropriate non-OWOW organizations)

THE WATERSHED PROTECTION INITIATIVE

Relationship of the Watershed Protection Initiative to Other Water Programs



Appendix

THE WATERSHED PROTECTION INITIATIVE

Canaan Valley - A Region III Watershed Protection Project

Background:

- National Natural Landmark, fragile wetlands complex with unique ecosystem, migration areas for American Woodcock, streams for public water supplies and brown trout

Stressors:

- NPS, development, mining, offroad racing, water demand, septic tanks and acid precipitation

Goals:

- Long term environmental preservation and sustainable economic growth

THE WATERSHED PROTECTION INITIATIVE

Canaan Valley - A Region III Watershed Protection Project (cont'd)

Process:

- Formation of Canaan Valley Task Force - EPA, FWS, COE, State DNR, county and local commissions, public, environmental and industrial groups
- Refine, prioritize, and pursue Reg III RA's initial proposal
- Develop and implement action plan

Accomplishments to date:

- Suspended COE wetlands permits in the Valley. Permit applications now must be subject to review and approval

THE WATERSHED PROTECTION INITIATIVE

Canaan Valley - A Region III Watershed Protection Project (cont'd)

Actions Underway:

- ❑ Surveillance and enforcement program on wetlands, public outreach, Advanced ID and trend analysis
- ❑ Proposing National Wildlife Refuge and Countywide master plan

In summary, the Canaan Valley Watershed Protection Project is:

- ✔ Geographically focused
- ✔ Holistic and integrated approach
- ✔ Building on federal state, local and private partnerships

THE WATERSHED PROTECTION INITIATIVE

Savannah River - A Region IV Watershed Protection Project

Background:

Identified different stressors and impacts for each of the four segments of the River

- Hydropower plant releases in riverine segment upstream from Augusta
- Municipal and pulp and paper mill discharges in riverine segment with tidal influence
- Salinity intrusion, municipal and industrial discharges, COE Tide gate in Savannah estuary
- Potential harbor dredging impacts in near coastal area

THE WATERSHED PROTECTION INITIATIVE

Savannah River - A Region IV Watershed Protection Project (cont'd)

Goals:

- Develop action plan, with full federal, state, and local support, to correct water quality standards violations and restore the designated use

Ongoing Activities:

- Designated project coordinator, formed EPA coordinating committee, identified information/data sources, and identified potential external committee members
- Developing DO based or toxicity based WLA/TMDL for segments of the River with states of Georgia and South Carolina
- Studying salinity intrusion and wetlands evaluation with COE
- *The key to success is concentrating existing resources and sharing available resources from other programs.*

THE WATERSHED PROTECTION INITIATIVE

Ten Reasons Why WPI is not §208

1. WPI provides for a comprehensive approach , including planning, implementation and monitoring of results - not hampered by planning limitation of §208
2. Emphasis of WPI is "action" - not "planning"
3. WPI focuses on ecological units - not political units
4. WPI uses existing institutional infrastructure - does not create new one
5. WPI will reorient base resources; will not depend on separate, independent grant source
6. WPI initial stages depend on strong regional leadership; will not rely totally on state buy in

THE WATERSHED PROTECTION INITIATIVE

Ten Reasons Why WPI is not §208 (cont'd)

7. WPI has 15 years of additional tools, information, and experience to draw from (e.g., NEP, 319, 314, well-head programs, etc.) and established regulatory and other pollution control programs to build on (e.g., NPDES, 404, construction grants, water quality standards, 305(b)

8. WPI is consistent with approaches now being taken by other federal and state land management agencies

9. WPI does not have to compete with the initiation of massive new water programs - 208 competed with initiation of the NPDES permit program and the construction grants program 15 years ago

10. Major stakeholders (states, locals, other Federal agencies, private constituencies, etc.) see the need and are ready to be engaged

DRAFT

WATERSHED PROTECTION INITIATIVE

1. THE WATERSHED PROTECTION INITIATIVE (WPI)

A. The water program has made great progress over the past two decades in identifying and controlling water pollution.

B. While current efforts have been successful, they have concentrated on point sources and the chemical integrity of the Nation's waters. The current program approach has:

i. created "gaps" which have failed to address overall ecological and habitat health;

ii. in many cases, not considered the cumulative effects of different types of pollution from different sources of pollution; and

iii. not taken advantage of opportunities to involve local decision-makers and other responsible parties in cooperative efforts to improve the ecological health of specific waterbodies.

C. Water protection programs evolve as our technical understanding of the environment changes and as our social values and political institutions change. The WPI is intended to be a vehicle to promote incremental improvements in the way we approach the task of protecting watersheds.

2. GOALS OF THE WPI

A. The goal of the WPI is to reorient EPA and other Federal agency, State, and local programs to address watershed protection in a holistic manner. Specific goals are to encourage State and local governments to target watersheds based on ecological risk; to encourage the development of site-specific watershed protection measures based on a holistic, integrated approach to address both traditional and non-traditional sources; to establish processes in which all decision-makers at all levels of government, different agencies, and other stakeholders work together to implement solutions; and to establish effective programs to measure success and continuous improvements.

B. The WPI will be comprehensive in scope and seeks to change incrementally the approach to watershed protection within all levels of government.

i. EPA has responsibilities to promote coordination within the family of Federal agencies, develop technical tools, serve as a point of coordination at the EPA Region level, and, where necessary, provide examples of integrated, holistic watershed protection.

ii. The States and Indian Tribes have responsibilities for State- and reservation-wide planning and targeting, managing water quality programs, integrating State agencies, and supporting local levels of government. The State-wide level is also a critical level for integrating information and coordinating the activities of many State, Federal, and other agencies.

iii. Local governments (e.g., counties, municipalities, area planning agencies) and other organizations (e.g., Conservation Districts, Lake Associations, business-related groups, public interest groups) in many cases are the decision-makers responsible for actions that affect the environmental quality of watersheds.

C. The WPI approach uses an integrated and holistic approach for watershed protection. As such, the WPI provides a framework which:

i. empowers Federal, State, Indian Tribes, and local agencies to implement watershed-specific plans that prevent, reduce or abate environmental degradation and risks to ecological systems and public health from all stressors and from all sources in the watershed;

ii. encourages consideration of the cumulative chemical, physical, and biological effects throughout the watershed;

iii. enhances coordination among all interested parties, including State, local, Federal agencies, Indian Tribes, and, most importantly, the public; and

iv. enables States and EPA to assess progress and successfully develop and improve tools and programmatic methodologies.

3. RELATIONSHIP OF THE WPI TO OTHER WATER PROGRAMS

Several current water programs incorporate geographic targeting to some degree, including the Nonpoint Source Program, the National Estuary Program, Coastal America, the Clean Lakes Program, and Advanced Identification or Special Area Management Plans in the Wetlands Program. Regions are also undertaking geographically

targeted, multi-media enforcement initiatives. In the near term, the Watershed Protection Initiative would not change the degree to which existing programs are carried out or are targeted.

The WPI approach is not intended to replace existing targeting programs, but rather to integrate and build on these targeting efforts on a watershed basis. Under the Watershed Protection Initiative, we would look to make several of these targeted efforts coincide in the same watershed and thereby strengthen and broaden our efforts. This approach will encourage stakeholders to view all targeting efforts in a holistic fashion, in the context of the specific watershed. A "champion" for the watershed would work to tie the programs together. Figure 1 illustrates the relationship of the WPI to other water programs.

Finally, there are important traditional tools (permitting, standard setting, etc.) which are generally applied uniformly nationwide and which are responsible for much of the progress realized this far in preventing or controlling pollution. Continued, or enhanced, use of these traditional tools is a vital building block for better efforts - within targeted watersheds and more broadly.

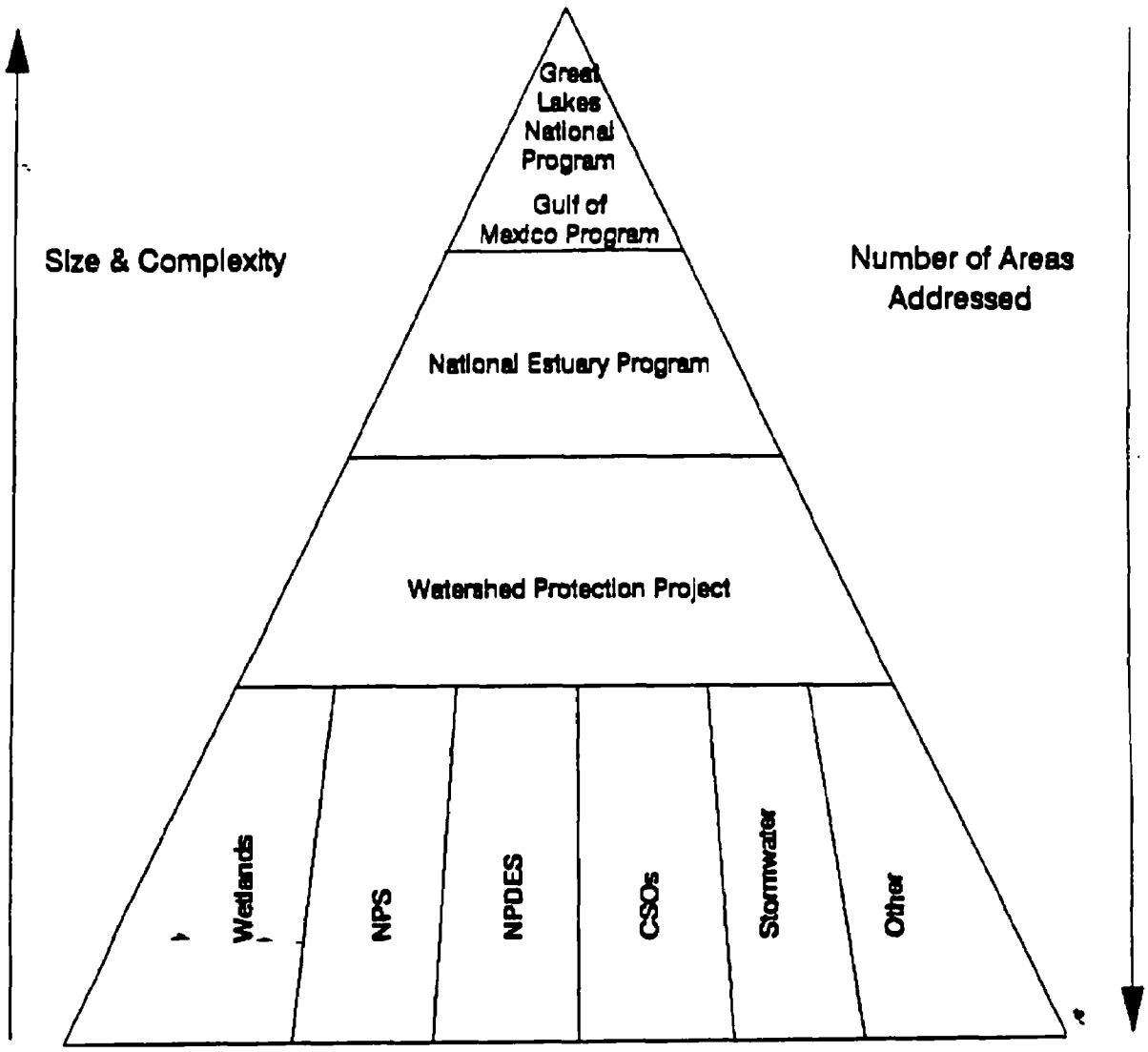
4. IMPLEMENTATION OF THE WPI

A. Implementation of the WPI will be through a two-pronged approach:

i. Regional watershed projects (short term goal) - Projects will be initiated by the Regions and managed by EPA. Projects will be selected through risk-based targeting and involve integrated, holistic watershed protection solutions (see Appendices A and D for a definition of a Watershed Protection Project and examples of Regional watershed projects). The purpose of the Regional projects is to develop methods and tools, develop credible case studies, and lead by example. The key ingredient in these projects is the designation of a "champion" for the selected watersheds who will actively involve, with management support, the broad scope of Water Management Division staff and programs in the formation and execution of action plans to protect or enhance the watershed.

ii. Institutional changes (long term goal) - EPA HQ and Regions will undertake specific activities to encourage States and other agencies to move toward integrated, focused, holistic water quality programs. This is a mid- to long-term proposition, and includes:

Figure 1: Relationship of the WPI to Other Water Programs



a. enhancing Statewide assessment and geographic targeting programs;

b. bringing all relevant Federal and State agencies' focus to bear on addressing targeted watersheds in an integrated manner;

c. involving local governments and the public in developing comprehensive watershed protection measures; and

d. involving Federal, State, Indian Tribal, and local agencies and the public in developing appropriate educational programs.

B. Scope of Watershed Protection Projects - Appendix A provides a definition of a watershed protection project (WPP). Figure 2 illustrates the scope of WPPs. All WPPs should be broad in terms of the scope of the environmental issues examined. Projects that may be appropriate to initiate under the WPI include projects that focus on pollution prevention and controlling pollution from dispersed, non-traditional sources (e.g., urban and rural nonpoint source discharge of nutrients and toxics, stormwater, CSO dischargers, habitat destruction). These non-traditional sources constitute, in aggregate, a significant threat to the integrity of the ecosystems in our watersheds.

The scope and complexity of WPPs will be determined by the Regions and States on a case-by-case basis and should reflect available resources, technical feasibility, and public support. WPPs should focus on geographical areas where existing resources and activities can be integrated and brought together to demonstrate success within a reasonable period of time. While WPPs will vary in size and scope, most projects will not address the entire geographic reach of very large watersheds or estuaries.

C. Results measurement - Each aspect of the WPI must have measurable endpoints. Tracking results will be a priority in implementing the WPI. Examples of measures that will be tracked as part of WPI include measurable water quality improvements, and measurable program institutional changes.

D. The WPI will be implemented in FY91 by redirecting base resources. For FY92, the WPI will be implemented by redirecting base resources and by applying portions of any FY92 increases.

E. EPA HQ will provide flexibility in certain existing programs to support implementing the WPI (see Appendix E).

Figure 2: Scope of Watershed Protection Projects

Selection Level

	National	Regional	State	Local
Multi-Media Multi-program	Great Lakes Coastal America	Appalachicola National Estuarine Sanctuary, FL	Maine Lakes Assessment	Batterkill, VT Watershed Plan
Mixed	National Estuary Program	Merrimack River, NH	Pacific Northwest Rivers Study Projected Areas OR, ID, WA, MN	Lackawanna River, PA Mgt. Plan Southern CA Wildlife Plan
Single-media Single-program	Lake Champlain Water Quality Plan	Canaan Valley, WV Rainwater Basin Advance Identification	319 Program Delaware State Wetlands Cons. Plan Section 604(b) Section 106	Pilgrim Creek Watershed Mgt. Plan, CA West Eugene, OR Local Wetlands Mgt. Plan

5. EPA HQ AND REGIONAL COMMITMENTS

A. Headquarters Commitments include:

i. Developing technical tools for geographic targeting and watershed protection (e.g., models, NPS-oriented criteria, monitoring methods, BMP effectiveness data, geographic targeting methods);

ii. Harmonizing the priority setting and targeting criteria of currently operating base programs;

iii. Providing flexibility to grant resources for watershed protection projects;

iv. Supporting coordination and technical transfer pathways between the Regions; and

v. Setting up necessary workshops, visiting project sites, and evaluating progress.

B. Regional Commitments include:

i. Ultimate responsibility for the management of watershed projects and other related activities (e.g., project identification, staff dedication);

ii. Preparation of descriptions of planned activities and resources devoted to projects; and

iii. Reporting on measurable indicators of progress.

6. SCHEDULE FOR IMPLEMENTATION

A. By August, 1991, Initial Framework and Projects would be submitted to EPA HQ. These Initial Regional Plans would, at a minimum, include: (See Appendix B for a more detailed description.)

i. A description of Regional watershed projects the Region anticipates working on in FY 92 and FY 93.

ii. Initial thoughts on a Comprehensive Regional Framework.

B. By September, 1992, Regional offices would submit a Comprehensive Regional Framework for Action. The Comprehensive Regional Framework should explain how the Regional offices will work to encourage Federal, state, and local agencies to implement program changes to achieve the WPI

goals. It should include: (See Appendix C for a more detailed description.)

i. An update of ongoing watershed projects;

ii. —A description of the Region-wide watershed assessment and geographic targeting capability that should be completed by September, 1992;

iii. A strategy for institutional changes including measurable results, milestones, and regular progress reports; and

iv. A plan for transferring lessons learned from the Regional watershed projects and program initiatives within the Region.

C. In FY 1993 national workshops on integrated watershed protection will be conducted.

D. In FY 1995 national progress to date will be assessed.

7. **APPENDICES**

A. Definition of a Watershed Protection Project

B. Detailed Description of August 1991 Initial Framework and Projects

C. Detailed Description of September 1992 Comprehensive Regional Watershed Framework

D. Example Regional Approaches to Watershed Protection

E. Program Flexibility to Implement the WPI

APPENDIX A: Definition of a Watershed Protection Project

For the purposes of the Watershed Protection Initiative (WPI), we can define a Watershed Protection Project (WPP) as a discrete, integrated set of activities with the following characteristics:

- identified as a discrete project through a planning process by an EPA Region, a State, or other authoritative organization(s) with environmental management authorities/responsibilites;

- encompasses all or most of the landscape (normally a watershed) or other identifiable ecological or physiographic unit (e.g., an embayment, a mountain valley, or an ecoregion);

- based on well-defined, risk-based environmental goals for maintenance, improvement, and/or restoration of environmental quality;

- involves an integrated multi-program approach to achieving well-defined, risk-based environmental goals and objectives for the watershed, including:

    - chemical water quality
    - physical water quality (temperature, flow, circulation, fresh-salt water mixing, etc.)
    - habitat quality (channel morphology, riparion vegetation, substrate composition, wetlands, mud/sand flats, SAV, and other community composition and "health")
    - biodiversity;

- provides for broad-based participation of appropriate Federal, State, tribal, county, municipal and other government agencies, private landowners and other interested parties, and the general public.

The purpose of this definition is not to be restrictive or to force conformity to a single model. Rather, the general criteria are designed to provide maximum flexibility within some limits established to ensure some comparability across watersheds for purposes of reporting, accountability, and resources management.

APPENDIX B: August 1991 Initial Framework and Projects

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1. **LIST OF PROJECTS THE REGION ANTICIPATES WORKING ON IN FY 92 AND FY 93** -

The list should include:

- a description of each watershed project based on existing information and the targeting approach used in initially selecting the project;

- the purpose of each project in terms of measurable qualitative and quantitative results;

- a description of institutional and public support, including the kinds of institutional changes expected to result from the project, e.g., local zoning or finance revisions, consistent watershed permit expiration dates, establishment of formal watershed workgroup or coordinator; and

- a description of integrated approaches (technical and programmatic) to be used for each watershed project, and a description of resource needs, potential sources and the means to secure them.

2. **INITIAL EVALUATION AND PRELIMINARY IDEAS FOR LONG-TERM ACTIONS TO IMPLEMENT THE WPI** -

- Evaluate current programs operated by State, Federal, and to the extent practicable, local agencies or organizations in terms of the following objectives of the WPI:

  - geographic targeting

  - coordination among agencies

- degree of involvement of local agencies and public organizations

- degree that non-chemical stressors and non-traditional sources are addressed

- Describe Regional plans for developing a Region-wide risk-based targeting capability by September 1992.

- Describe initial Regional thoughts for promoting a reorientation of Federal, state and local programs to meet the objectives of the WPI. Describe initial thoughts on how institutional changes will be measured and reported.

- Describe intitial thoughts on how information will be transfered within the Region.

APPENDIX C: September 1992 Comprehensive Regional Watershed Protection Framework for Action

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The Comprehensive Regional Framework should be consistent with the Regions' Strategic Planning and the overall goals of the Watershed Protection Initiative. The Comprehensive Regional Framework should include the following:

1. **AN UPDATE OF ONGOING WATERSHED PROJECTS** - The update should include progress reports on ongoing watershed projects.

2. **A DESCRIPTION OF THE REGION-WIDE WATERSHED ASSESSMENT AND GEOGRAPHIC TARGETING CAPABILITY IN RELATION TO THE OVERALL GOALS OF THE WPI** - This description should include:

   - **An assessment of the conditions of watersheds and major environmental concerns and causes** - The focus of this assessment is on existing information and knowledge. The problems and causes should be identified on the basis of risk.

   - **Targeting** - The above descriptions and assessments of watersheds should provide the Regions with the basis for targeting methods. The Region will make a preliminary identification of watersheds it considers high priority. Preliminary targeting will help to focus the States on specific watershed projects. The targeting process involves two major criteria. One deals with physical conditions and values of the watersheds. The other deals with the opportunity for success. The opportunity for success depends on institutional and public support, and the availability of technical and scientific tools.

3. **A STRATEGY FOR PROMOTING INSTITUTIONAL CHANGES IN WATERSHED PROTECTION** - For the long-term, Regions should discuss approaches and activities to support building State and local infrastructure to ultimately empower States and local governments to target watersheds and manage water quality with a holistic integrated approach, and to do so routinely. This section should include discussion of the following, including measurable results, milestones, and regular progress reports for each element:

- **Assessment of current programs**

- **Additional Regional watershed projects**

  - purposes, objectives

  - selection process

  - operation (including resources, technical approach and schedule)

- **Geographic targeting** - The Regions should:

  - Take steps to encourage States to adopt State-wide targeting programs;

  - Take measures to ensure that all State agencies commit resources and cooperate in developing mitigation measures in targeted waters; and

  - Make efforts to ensure that States seek to involve the public in watershed management decisions.

- **Program integration and cooperation** (including the public)

- **Holistic protection**

  - Ensure that all stressors and risks are addressed.

- **Measurable results** - The Regions should select actions and propose measurements to demonstrate the effectiveness of the watershed approach. Measurable results, specific milestones, and regular progress reports are necessary to demonstrate the effectiveness of the integrated watershed approach.

4. **IDENTIFICATION OF TECHNICAL AND PROGRAMMATIC LIMITATIONS** - The Regions should establish procedures for assessing and evaluating watershed projects. Successes and failures of technical tools and programmatic methodologies should be identified and shared.

5. **A PLAN FOR TRANSFERRING LESSONS LEARNED TO OTHER PROJECTS WITHIN THE REGION** - This section should include discussion on how the Regions will facilitate coordination between the States for sharing tools and information. In addition, the Regions should address inter-Regional cooperation.

APPENDIX D: Example Regional Approaches to Watershed Protection

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- Canaan Valley, West Virginia
  Region III

- Savannah River, Georgia
  Region IV

CANAAN VALLEY: AN EARLY WATERSHED PROTECTION INITIATIVE

Canaan Valley, located in Tucker County, West Virginia, contains natural resources that are considered unique and irreplaceable on a national basis. Designated as a National Natural Landmark in 1975, the Valley encompasses an extremely diverse but fragile wetlands complex containing a unique relict northern boreal ecosystem. Some of the plant species, listed as rare in the State, are at their southernmost known occurrence in the Valley. Canaan Valley also contains the largest unprotected migration concentration area for the American Woodcock in the United States. Moreover, the Blackwater River, the headwaters of which are formed by the wetlands at the Valley's southern end, is an important source of public water supply and is the largest stream complex in the State containing a self-sustaining brown trout population.

The Valley is subject to numerous threats, all of which are capable of undermining the integrity of the Valley's ecosystem. These threats encompass, among others, nonpoint source pollution, development, mining, off-road vehicle use, and water demands, which result in impacts to water quality of surface and ground water, wetlands, wildlife habitat, and the unique vegetational community.

Water quality is a key concern given the accelerating development in the Valley. Such development, and consequently potential sources of impact, include second home construction, establishment of new businesses, and development of additional golf courses and ski slopes. No central sewage treatment system exists in the Valley; all septic systems are on site, which leads to concern of waste loading in the Blackwater River. Water quantity demands, particularly during snow-making events and peak use at the Valley's state park, are resulting in a dropping water table. This reduction in water quantity will tend to exacerbate any effects of pollutants introduced into the system. Moreover, the low buffering capacity of the Blackwater River makes the Valley particularly vulnerable to adverse effects from acid precipitation and mine drainage.

Recognizing that these mounting threats could irrevocably harm the Valley's natural resources complex, the Administrator of Region III EPA moved to coalesce the various elements having involvement in the Valley into a group capable of developing and implementing a protection strategy that should ensure long term environmental preservation, while permitting reasonable sustainable economic growth. The group was organized as the Canaan Valley Task Force and charged with developing and

implementing a comprehensive Canaan Valley management strategy by drawing upon its collective experiences, perspectives, resources, authorities, and investigations. The task force is comprised of representatives of the Environmental Protection Agency, the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, the West Virginia Division of Natural Resources, Tucker County Commission, Tucker County Development Authority, Tucker County Chamber of Commerce, landowner associations, environmental interest groups, development interests, and the public at large.

Among the first tasks addressed by the task force were refining, prioritizing, and pursuing the initiatives developed by the Regional Administrator. The initiatives are broad based, encompassing a trends analysis and advanced identification of wetlands; suspension of Nationwide permits for surface mining, minor road crossings, and headwater/isolated wetlands; surveillance and enforcement; public outreach; a wastewater assimilation study of the Blackwater River; a study of impacts from off-road vehicles; a study of the economic impacts of the proposed National Wildlife Refuge; and an assessment of the headwater wetlands of the Valley. Congressman Mollohan, representing the First District of West Virginia, secured a Congressional appropriation of $250,000 to fund the initiatives.

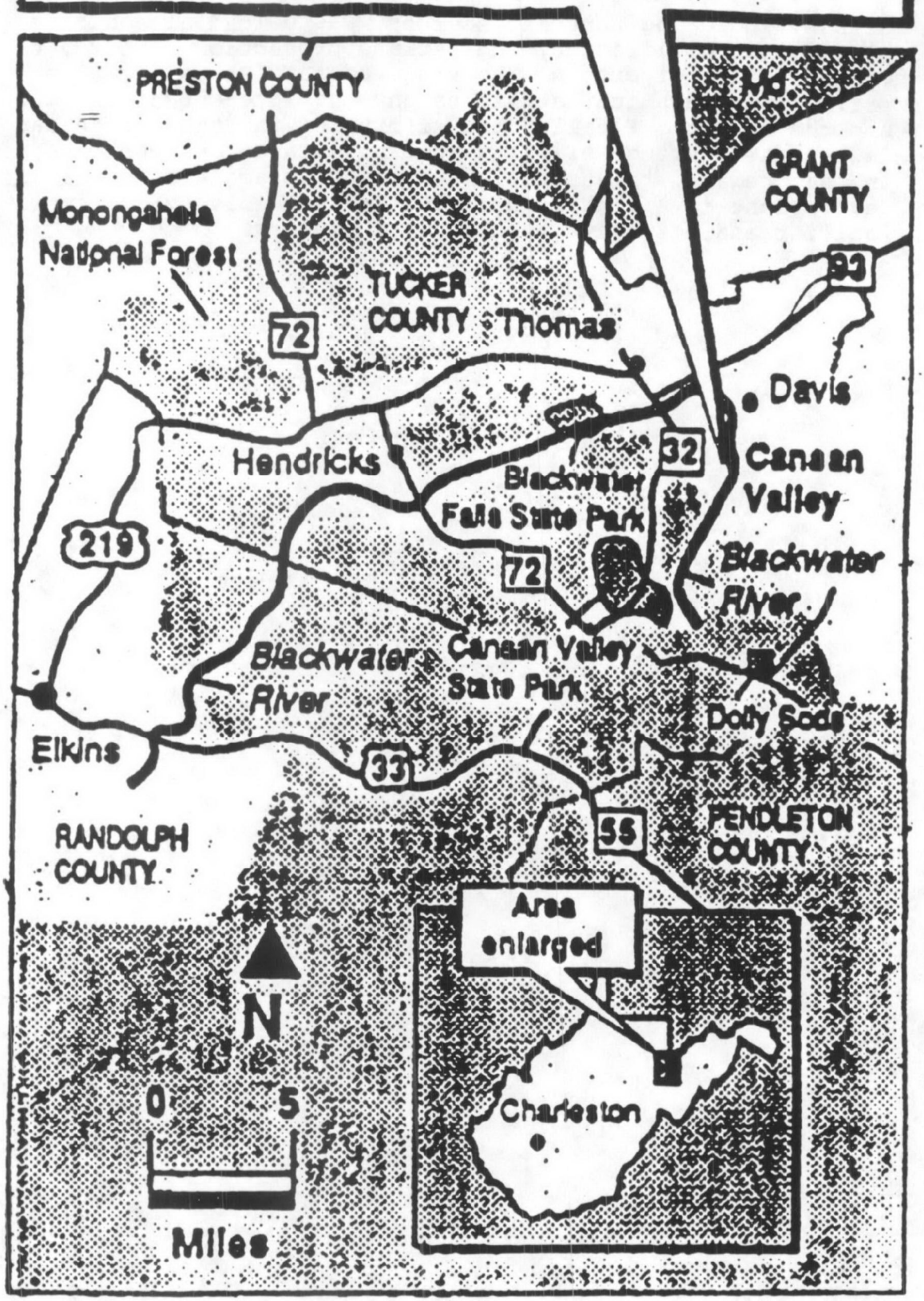
One of the first accomplishments of the task force and specifically the U.S. Army Corps of Engineers, is the suspension of the Nationwide Permits in the Valley. These permits had allowed filling of wetlands in headwaters or isolated situations and fillings in conjunction with certain activities related to road crossings and mining activities with little or no prior notification and review. With the permit suspensions, proposals for these activities must now undergo thorough review and approval. In addition, work has begun on the surveillance and enforcement (wetlands) program, public outreach, and Advanced ID and trends analysis; funds are being disbursed for the remaining initiatives.

In pursuing the initiatives, the task force is serving to address several other issues. Two key ones are the proposed National Wildlife Refuge and the Tucker County Commission's master plan. Both are controversial and sensitive issues involving habitat protection, economic growth, and property rights. Both, however, present opportunities as vehicles for implementing the management strategy for the Valley.

The activities of the Canaan Valley Task Force are characteristic of what would be considered a watershed protection project under the Watershed Protection Initiative. First, the task force is geographically focused. Second, it is multi-programmatic in that it seeks to solve water problems in several

arenas, including nonpoint sources, waste load allocations, groundwater utilization, and wetland protection. Third, the Canaan Valley effort is a working Federal, State, local and private partnership that has caught the interest of the Congress and the nation. Finally, the efforts of the task force can be implemented through existing Federal, state, and local vehicles. In that regard, they represent a means to achieve sustainable development in a highly sensitive and valuable ecosystem within a familiar and effective regulatory framework.

Canaan Valley



REGION IV WATERSHED INITIATIVE PROCESS

The goal of the Watershed Initiative is to reduce ecological and human health risks in critical watersheds. This will be accomplished by:

1. Identification of watersheds by Region IV and States based on known problems and use impairments;
2. Clear definition of the problems, causes, and sources in the watershed;
3. Development of potential control strategies for pollutant loads and sources including determination of total maximum daily loads (TMDLs) where appropriate;
4. Aggressive implementation of point and nonpoint source controls;
5. Development of scientifically valid, practical indicators to identify and assess improvements made or ecological risks that threaten the waters;
6. Development of ecological criteria that States can use in adopting standards for ecology-based pollution prevention and control.

The Regional Administrator or designee will consider the following criteria in designating priority watersheds:

- human health and ecological risk;
- possibility of additional environmental degradation;
- likelihood of achieving demonstrable environmental results;
- implementability;
- extent of alliances with other Federal agencies and States to coordinate resources and actions;
- value of the watershed to the public;
- resource needs; and
- use of existing and/or development of new assessment information.

Significant work has already been done through a variety of efforts to identify Region IV water bodies at greatest risk such as State 303(d) lists, 305(b) reports, 304(l) lists, State 319 assessment and management reports, NEP assessments and action plans and the Region IV Near Coastal Waters Program. The Region IV comparative risk portion of the Strategic Plan describes the primary stressors and impacts to Southeastern waters.

A watershed initiative will draw from a menu of activities to support Region IV, State and local environmental protection and restoration efforts. The selection of activities will vary

among the watershed projects, and may cross program offices. Watershed initiatives will be structure for particular watershed issues. They will vary in scope from Region IV teams assembled specifically to implement provisions of a National Estuary Program Comprehensive Conservation and Management Plans to extensive external coordinating committees formed to address areas without previous planning and with multiagency involvement.

The following is a sequence of activities to initiate and conduct a Region IV watershed initiative. The listed activities are based on recent Headquarters guidance concerning the administration of watershed initiative. The activities also include elements of the approaches used in ongoing Region IV watershed projects such as the NEP projects and the Perdido Bay Cooperative Management Project. This approach can be applied to a variety of watershed initiatives but will need to be tailored to meet the specific needs of a particular project. this sequence of actions follows the selection of a watershed for an initiative.

1. Designate a Region IV coordinator for each watershed project.

2. Formulate a brief description of the watershed and include a preliminary list of environmental problems based on available information.

3. Clearly delineate the preliminary scope and goals of the initiative.

4. Form an EPA watershed team. This is an extremely important element of the initiative and should be made an official part of an employee's duties. The team should consist of staff representatives of each Region IV program that has an active role in environmental issues in the watershed. The team will coordinate EPA base programs relevant to the project.

5. Assemble and evaluate available information on the sources, causes and extent of waterbody use impairment and the ecological and/or human health risks.

6. Form an external watershed coordinating committee. The process of data assembly described above will indicate the need for and potential membership of the committee. The coordinating committee members could consist of technical and management representatives of key state, regional and local agencies, industries and citizen group representatives. External committees would have different compositions depending on the scope and goals identified in

item 2. The coordinating committee will facilitate communication among agencies and groups operating in the watershed and participate in the implementation of basin environmental protection actions.

7. Conduct regular meetings of the watershed team and coordinating committee to maintain communication and to build consensus on issues and obtain commitments for solutions.

8. Identify all activities and key participants, both EPA and those of other agencies, that have bearing on environmental problems in the watershed. Also identify major milestones for each agency's program affecting the watershed.

9. Develop a watershed management strategy, the purpose of which will be to:

   - Form consensus on which issues are the highest priorities,
   - Develop TMDLs and water based control strategies,
   - Describe specific plans of action to address problems,
   - Identify those problems that need additional data,
   - Identify opportunities for cooperative efforts,
   - Leverage resources, and
   - Set base program priorities.

10. As resources allow or are pooled from other sources, support the further characterization of watershed problems or the development of potential solutions.

11. Consistent with the watershed plan, implement action plans to resolve environmental issues. Implementation should be accompanied by development of environmental indicators that, through monitoring, will be used to gauge the success of the corrective actions.

A watershed initiative will need resources. Region IV will provide resources through the dedication of full or partial FTEs to the watershed coordinator and team member positions. Other agencies will provide support through active participation on the coordinating committee. Support for watershed initiative actions could come from the Region IV Near Coastal Water Program, the Coastal America initiative, refocusing of State water quality monitoring, nonpoint source grants, Clean Lakes Program grants, Region IV discretionary funds, and funds from other Federal and State agencies.

SAVANNAH RIVER WATERSHED APPROACH
CLARK HILL DAM TO OCEAN

REGION IV SAVANNAH RIVER WATERSHED COORDINATOR:

DESCRIPTION OF SAVANNAH RIVER WATERSHED AREAS OF CONCERN:

The Savannah River Watershed can be divided into four segments or areas of concern:

- Clark Hill Dam (CHD) to City of Augusta - a 50 mile riverine segment influenced by hydropower releases from CHD.
- City of Augusta to Highway 27 just upstream of Savannah - a 150 mile riverine segment with the last 20 miles tidally affected, influenced by municipal and pulp and paper mill wastewater dischargers.
- Savannah Estuary/Harbor - the tidal saline estuarine portion influenced by Savannah WTP, pulp and paper mills and a chemical wastewater facility, and the flow is influenced and regulated by Army COE Tide Gate.
- Oceanic Portion - this segment may be influenced by harbor dredging operations.

Existing or Potential Water Quality Violations or Use Impairments

- CHD to Augusta segment:
  - measured low summer and fall dissolved oxygen (DO) values downstream of dam caused by low DO water being released from lower layer of CHD Reservoir. DO levels are recovered when River reaches Augusta.
  - Possible NPS problems (siltation and sediment) due to agriculture and construction runoff.
- Augusta to Savannah segment:
  - Dioxin and PCBs have been detected in fish. Potential human health problem that needs to be better defined.

- Potential summer DO water quality standards violations near Highway 431, 80-100 miles below Augusta. DO violations caused by a combination of Augusta's municipal and industrial discharges, low flows from CHD and river temperature increase due to Savannah River plant.

- Possible acute toxicity problems below wastewater dischargers.

- Possible instream tritium problems due to Savannah River plant.

• Estuarine/Harbor segment:

- Dioxin and PCBs have been detected in fish. Potential human health problem that needs to be better defined.

- Summer DO water quality standards violations influenced by wastewater discharges, upstream wastewater discharges, Army COE Tide Gate operation, COE dredging operations and possible NPS contributions.

- Endangered species concern: the shortnose sturgeon - by National Marine Fisheries because of low DO levels.

- Loss of striped bass fishery due to increased upstream salinity caused by Tide Gate operation (U.S. Fish & Wildlife).

- Toxicity problems both below the chemical discharge and in the tide gate sediment path.

- Possible lower DO levels, increased salinity and interference of aquatic life species migration due to proposed COE Harbor dredging and deepening project.

- Possible loss of freshwater supply due to greater upstream movement of salt water as a result of the tide gate operations and deepening projects.

• Ocean Portion

- Disposal of dredged materials some of which may be toxic.

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SCOPE AND GOALS OF SAVANNAH INITIATIVE:

Development of an action plan, involving all appropriate State, local and Federal agencies, that will reduce the environmental and human health risks in the Savannah River Watershed; correct the water quality standards violations; and restore the designated uses. This action plan will pull together all of the areas of concern, such as low DO levels, salt water intrusion, lack of fisheries resources, etc., that are being presently dealt with on an individual basis.

EPA REGION IV WATERSHED TEAM REPRESENTATIVES:

- Water Management Division:
  - Coastal Unit Rep.
  - WQS/WLA Unit Rep.
  - Wetlands Unit Rep.
  - Planning & Monitoring Unit Rep.
  - NPDES Permitting and/or Compliance Section Rep.
  - Groundwater Branch Rep.
  - Drinking Water Rep.
- OPM - Federal Activities Rep.
- NEPA - EIS Rep.
- Superfund Rep.
- Environmental Service Division Reps.

ONGOING SAVANNAH RIVER WATERSHED PROJECTS AND AVAILABLE INFORMATION:

- EPA, Georgia, & South Carolina's joint intensive river survey and WLA/TMDL development for Augusta-Savannah portion.
- EPA and Georgia Savannah Harbor DO water quality standards and modeling activities.
- COE Savannah Harbor Environmental study examining the effects of Tide Gate operations.
- COE Savannah Harbor EIS concerning the proposed deepening project.
- Striped bass restocking program - U.S. Fish & Wildlife.
- Shortnose sturgeon restocking program - National Marine Fisheries.

- U.S. Fish & Wildlife operation of Federal Wildlife Sanctuary.

- Identification of wetlands conversion from freshwater to saltwater marshes - COE project with University of Georgia.

POTENTIAL LOCAL, STATE AND FEDERAL PARTICIPANTS:

- EPA
  - Water Quality Management Branch, WQS/WLA, Coastal Programs, and Wetlands
  - EIS
- U.S. Fish & Wildlife
- U.S. Army Corps of Engineers
- National Marine Fisheries
- Georgia EPD, DNR, Water Resources, Fish &Wildlife, & Ports Authority
- South Carolina DHEC, Water Resources Commission, Coastal Council
- 5 local environmental groups
- Savannah Area Harbor Discharge Group
- City of Savannah or Chattam County representatives

ONGOING WATER QUALITY MANAGEMENT STRATEGIES AND ACTIVITIES:

- Development of a DO-based WLA/TMDL for Upper, Middle & Estuary/Harbor portions of the Savannah Watershed. The upper, and middle segments WLA/TMDLs are being developed through a joint EPA, Georgia DNR, and South Carolina DHEC water quality data collection and modeling study.

- Savannah Harbor Tide Gate and Deepening EIS/Study being conducted by COE.

- Salinity intrusion calculation for Estuary/Harbor - water quality modeling being conducted through a COE contract.

- Toxicity WLA/TMDL for middle and Estuary/Harbor portion.

- Wetlands evaluation being conducted by COE through contract with University of Georgia.

APPENDIX E: Program Flexibility to Implement the Watershed Protection Initiative

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NATIONAL ESTUARY PROGRAM

Section 320 of the Clean Water Act authorizes up to $12 million per year (through FY92) for activities related to the development of Comprehensive Conservation and Management Plans (CCMP) under the National Estuary Program (NEP). Up to 10 percent of these funds can be used by EPA Headquarters for national program activities. A minimum of 90 percent of the total authorization is transferred annually from EPA Headquarters to the Regions, where the Regional Administrators have authority to award funds to support CCMP development. Funding decisions by the Regional Administrators are based on annual workplans developed by the NEP Management Conferences. These workplans specify the types of projects that will be supported to achieve the purposes of a Management Conference and complete a CCMP. Under the mandate of section 320, these funds are only authorized for use in estuaries designated under the NEP (currently 17), and only for CCMP development activities. As was noted, the use of these funds is directed by the NEP Management Conferences. Therefore, although activities under the NEP could generally be discussed in terms of the Watershed Protection Initiative, there is no flexibility for using any of the NEP funds for use either (1) outside of the NEP estuaries or (2) within the NEP estuaries without the direct consent of the NEP Management Conferences.

NEAR COASTAL WATERS PROGRAM

The Near Coastal Waters (NCW) Program was established as an Agency initiative in 1986 to maintain and where possible enhance the quality of near coastal waters. Regional NCW Strategies are a critical aspect of the NCW Program. The purpose of these strategies is to focus EPA Regional efforts on correcting problems in coastal areas, as well as to integrate these activities with programs being implemented at the Federal, State, and local level. The strategies assess coastal problems, and identify which of these problems will receive priority attention by the Region. The strategies also identify geographic areas that will be targeted, as well as priority actions that will be taken in these areas by EPA in coordination with Federal, State

and local agencies. Funds available under the NCW Program are used for implementation of Regional strategies, and are directed to projects at the discretion of the Region. This degree of flexibility makes these resources available for use under the Watershed Protection Initiative, providing their use is also consistent with meeting the goals and objectives of the Regional NCW Strategy.

MONITORING PROGRAM

The State-wide assessment and geographic targeting objectives of the WPI are consistent with monitoring program guidance and guidance issued pursuant to sections 305(b) and 303(d). Monitoring activities may need to be reviewed and redirected, however, in order to support specific watershed projects. Regions and States should work to assure that watershed projects have the assessment and data analysis support necessary to determine needed prevention, reduction and abatement activities and to measure and document the ongoing success of watershed initiative projects. Beginning in FY92, Regions should ensure that State workplans for sections 106 and 604(b) identify the monitoring activities and resources to support individual watershed initiative projects.

GRANTS

Section 106

Section 106 funds have very broad eligibilities and can be used to support a wide array of water quality activities. Beginning in FY92, Regions should ensure that State section 106 workplans identify which activities and resources are supporting specific watershed projects.

Section 314

Section 314 funds are used to provide financial assistance to States and eligible Indian Tribes for lake monitoring, study, restoration, and protection. Since lakes are a reflection of their watershed, the Clean Lakes Program (Section 314) requires a watershed approach for funding Phase I, Phase II, and to some extent Phase III projects described below. Therefore, Section 314 funds are supportive of WPI projects in which the watershed

includes a lake(s).

The Clean Lakes Program awards the following four types of cooperative agreements:

(1) Lake Water Quality Assessment - to perform a statewide assessment of lake water quality, provide a list of threatened and impaired lakes, and enhance their 305(b) reporting capabilities. These cooperative agreements require a 50/50 Federal/non-Federal cost share and are limited to no more than $30,000 per year in Federal funds for any State or Tribe.

(2) Phase I Diagnostic/Feasibility Study - to perform a comprehensive study of a specific lake to determine the causes and extent of pollution, to evaluate possible solutions, and recommend the most feasible and cost-effective method for restoring and protecting water quality. These cooperative agreements require a 70/30 Federal/non-Federal cost share and are limited to not more than $100,000 in Federal funds per study.

(3) Phase II Restoration/Protection Implementation - to implement the recommendations of a Phase I-type study and may include actual in-lake restoration work as well as watershed management practices to reduce pollution and protect the lake. These cooperative agreements require a 50/50 Federal/Nonfederal cost share with no limit on the Federal funds per project.

(4) Phase III Post-Restoration Implementation Monitoring - to determine the longevity and effectiveness of various restoration and protection techniques. These projects require a comprehensive knowledge of the lake system and its watershed prior to and during implementation in order to form a basis for comparing post-implementation data. Projects in which implementation has been completed for at least 5 years are given priority consideration for funding. These cooperative agreements require a 70/30 Federal/non-Federal cost share and are limited to $125,000 in Federal funds per study.

Section 319

Section 319 funds are used to implement nonpoint source management programs. When watershed projects are consistent with 319(b) management plans, section 319 funds can be used to support specific watershed activities. It is EPA policy that 319 funds should not be used for planning that is not closely associated

with an implementation project. However, 319 funds can be used to assess problems and develop load allocations and other management measures when these activities are part of a project that will also include implementation of controls within the watershed. Beginning in FY92, section 319 workplans should identify activities and resources supporting individual watershed initiative projects. If a state has shifted funds for nonpoint source purposes under section 201(g)(1)(B) (the Governor's one percent discretionary authority), these funds are eligible to be used for the same activities as section 319 funds.

Section 604(b)

Section 604(b) funds are used to support water quality management planning activities. These funds are a primary source of support as States assess potential watershed projects and develop plans for specific watersheds. Beginning in FY92, Regions should ensure that State section 604(b) workplans identify activities related to assessing potential projects and supporting specific projects.

VARIOUS SETASIDE AUTHORITIES WITHIN STATE REVOLVING FUNDS (SRF)

The wastewater construction grants program has been implemented through Title II of the Clean Water Act (CWA). The 1987 Amendments to the CWA established Title VI, State Revolving Funds (SRFs), to replace construction grants. SRFs may provide loans, refinance existing debt, and provide loan guarantees or bond insurance; however, SRFs may not make grants.

The 1981 Amendments added section 201(g)(1) which authorized States to spend up to 20 percent of their section 207 allotments on projects otherwise ineligible for funding from the construction grants program under section 212. Funding through section 201(g)(1) is referred to as the Governor's Discretionary Fund. The 1987 Amendments included sub-section 201(g)(1)(B) which allows for the use of funds for activities that are grant eligible under sections 319 (NPS) and 320 (NEP program). States may therefore use their SRFs for watershed projects, as long as the projects include activities appropriate to sections 319 or 320.

However, before a State can use its SRF to fund 319 or 320 activities, it must demonstrate that it has met the "first use" requirement established by section 602(b)(5), or will meet the requirement during the first year covered by its Intended Use

Plan (IUP). A State can satisfy the "first use" requirement by certifying that all National Municipal Plan (NMP) projects in the State are: 1) in compliance, 2) on enforceable schedules, 3) have enforcement actions filed, or 4) have funding commitments during or prior to the first year covered by the IUP.

PERMITS (NPDES) PROGRAM

The Permits Program provides one of the most effective tools for controlling pollution from point sources, stormwater runoff, and CSOs. The flexibility of the program exists in its major/minor classification, permit backlog priority setting and inspection priorities. In Region 5, both Michigan and Ohio are targeting permits on a basinwide basis. Region 1 is using criteria in setting priorities for permit reissuance that takes environmental need into account. OWEC has recently expressed an interest in other proposals that would allow for a basinwide or watershed targeting approach. Region 2 has recently prepared an issue paper on measures for tracking progress in reissuing permits. The issue paper recommends the development of a state-specific strategy to prioritize permit issuance and establishes an expectation that 20% of the permit universe should be addressed each year to ensure reissuance of all permits over a five year cycle. And finally, OWEC in its FY92 Operating Guidance will allow the Regions to inspect 80%, instead of 100%, of the majors and focus the resources for the remaining 20% on targeted areas.

GROUNDWATER PROGRAM - SECTION 106

Section 106 ground water grant funds are used to implement comprehensive State Ground Water Protection Programs (SGWPP). When watershed projects are consistent with SGWPP priorities, section 106 ground water grants can be used by the States to support specific watershed activities. These funds can be used to assess problems and develop management measures when these activities are part of SGWPP within the watershed. Beginning in FY92, section 106 ground water grant workplans should identify activities and resources supporting individual watershed initiative projects.

COASTAL AMERICA

A total of $23 million has been requested for the President's Coastal America initiative in 1992. These funds are divided up between four agencies as follows:

EPA	$ 6 million
Corps of Engineers	$ 7 million
NOAA	$ 5 million
Department of Interior	$ 5 million
	$23 million

The four agencies have developed a process for distributing the $23 million to regional action projects. Projects must be: 1) action-oriented; 2) involve three or more federal agencies; 3) focus on one of the three problem areas of habitat degradation, nonpoint source pollution, and contaminated sediments; and 4) must show a benefit to coastal living resources. For purposes of the initiative, seven coastal regions have been delineated: Northeast (Regions I and II), Southeast (Regions III & IV), Gulf of Mexico (Regions IV & VI), Great Lakes (Regions II, III, & V), Southwest (Region IX), Northwest (Region X), and Alaska (Region X). Within each of these coastal regions priorities will be established jointly and specific projects selected by Regional Implementation Teams (RIT) composed of Federal agency representatives from the coastal regional and field offices, and representatives from the coastal states. Under the current plans, these regional teams are beginning their nomination process now with the final list of projects to be submitted to the Coastal America National Implementation Team (NIT) in Washington by September 16, 1991. Any regions wishing to receive funding from Coastal America must work through their RIT to get proposals nominated.

WETLANDS PROTECTION PROGRAM

State/Local/Tribal Support Programs

- **State Wetlands Conservation Plans (SWCP):** SWCPs are a concept put forward by the Wetlands Forum. SWCPs would demonstrate how a State could achieve a goal of no net loss of wetlands. EPA is supporting efforts by the Conservation Foundation to further develop the Forum's model and identify States' technical information needs to develop SWCPs. A reference document is being developed to highlight successful approaches and provide techniques which States can use in developing such a plan. Every State has already

(1987) prepared wetland planning documents as part of the SCORP (Statewide Comprehensive Outdoor Recreation Plan) process. Many of these contain information of State inventories, foundation and values, distribution and acquisition priority.

- **State Grant Program:** The EPA grant program supports the development of new State wetlands programs or enhancement of existing programs. The reaction to the first year of the grant program was encouraging (over 30 States applied). Examples of State program development funded include State wetland conservation plans, developing various aspects of wetland water quality standards and wetland applications under CWA Section 401 certification, and program information and GIS data systems.

Planning

- **Advance Identification (ADID):** Under the CWA Section 404(b)(1) Guidelines, EPA and the Section 404 permitting authority (either the Corps of Engineers or an approved State agency), act jointly to identify wetlands and other waters of the United States as possible future disposal sites and areas generally unsuitable for disposal site specification for all or certain types of discharges. ADID allows EPA, the permitting authority, and/or the State to collect information on the natural values of wetlands. The results of ADID studies are published and made available to the public and regulated community and should provide an indication of whether a Section 404 permit will likely be received. There is a significant demand from State and local governments to conduct future ADID efforts.

NORTH CAROLINA'S WHOLE BASIN APPROACH TO WATER QUALITY MANAGEMENT: PROGRAM DESCRIPTION

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EXECUTIVE SUMMARY

North Carolina's Whole Basin Approach to Water Quality Management: Program Description

The North Carolina Division of Environmental Management (NCDEM) Water Quality Section has initiated a whole basin approach to water quality management. In the future, activities within the NCDEM Water Quality Program, including permitting, monitoring, modeling, nonpoint source assessments, and planning, will be coordinated and integrated by basin, for each of the 17 major river basins within the state. Water quality and aquatic resources will be assessed simultaneously throughout an entire river basin, leading to the development of basinwide water quality management plans and strategies.

The benefits of whole basin planning and management fall into three major categories: (1) improved efficiency, (2) increased effectiveness, and (3) consistency and equitability. By reducing the area of the state covered each year, monitoring, modeling, and permitting efforts can be focused; as a result, more can be achieved for a given level of funding and resource allocation. The whole basin approach is consistent with basic ecological principles of watershed management, leading to more effective water quality assessment and management. Linkages between aquatic and terrestrial systems are addressed (e.g., contributions from nonpoint sources) and all inputs to aquatic systems, and potential interactive effects, are considered. Whole basin management will facilitate the incorporation of nonpoint source pollution assessment and controls, since these diffuse pollutant sources extend to the watershed boundaries and accumulate from a basin's headwaters to its mouth. The whole basin plans will provide a focus for management decisions. By clearly defining the program's long-term goals and approaches, these plans will encourage consistent decision-making. Consistency, together with greater attention to long-range planning, in turn will promote a more equitable distribution of assimilative capacity, explicitly addressing the trade-offs among pollutant sources (point and nonpoint) and allowances for future growth.

The long-term objectives of North Carolina's Basinwide Water Quality Management Initiative are as follows:

- Implement a fully integrated approach to water quality assessment and management, that incorporates (1) chemical-specific monitoring and regulations, (2) biocriteria, bioassessments, and biosurveys, (3) water quality modeling, and (4) whole effluent toxicity testing.

- Coordinate Water Quality Section staff activities to make efficient use of available resources and to improve program effectiveness and consistency in management decision-making.

- Identify priority problem areas and sources (both point and nonpoint) that merit particular pollutant control and enforcement efforts/resources.

- Determine the optimal water quality management strategy and distribution of assimilative capacity for each of the 17 major river basins within the state.

- Produce comprehensive basinwide management plans that communicate to policy makers and the general public NCDEM's rationale, approaches, and long-term strategies for each basin.

- Implement innovative management approaches that both protect North Carolina's surface water quality and allow for sound economic growth and planning, and also encourage the equitable distribution of assimilative capacity.

- Increased assessment, through monitoring and modeling, of the interactions among pollutants and pollutant sources from a basin's headwaters to the river's mouth.

- Address more explicitly contributions from nonpoint sources, interactions between point and nonpoint sources, and options for nonpoint source pollutant reduction and controls.

- Establish basinwide total maximum daily loads, and avoid overallocation of the basin's assimilative capacity.

- Fulfill the requirements of the federal Clean Water Act and U.S. Environmental Protection Agency regulations in the most efficient and effective manner, by consolidating survey and reporting activities into an integrated whole basin management plan.

The implementation of whole basin planning and management will occur in phases. Permitting activities and associated routine support activities (field sampling, modeling, wasteload allocation calculations, etc.) have already been rescheduled by basin. All National Pollution Discharge Elimination System (NPDES) permit renewals within a basin will occur simultaneously, and be

repeated at five year intervals. The NPDES permit renewal schedule drives the schedule for developing and updating the whole basin management plans. The management plan for a given basin must be available (and approved) preceding the scheduled date for permit renewals, to serve as the basis for the permit renewal process and decisions. The earliest basin plans prepared in the mid-1990s may not achieve all of the long-term objectives for whole basin management outlined above. However, subsequent updates of the plans, every 5 years, will incorporate additional data and new assessment tools (e.g., basinwide water quality modeling) and management strategies (e.g., for reducing nonpoint source contributions) as they become available.

Each whole basin management plan will include eight major sections or components: (1) an introduction, describing the purpose and format of the plan; (2) a general basin description; (3) an assessment of the current status of water quality and biological communities in the basin; (4) an overview of existing pollutant sources and loads; (5) identification of the major water quality concerns and priority issues in the basin; (6) the long-range management goals and general management strategy; (7) the recommended total maximum daily loads, wasteload allocations (for point sources), load allocations (for nonpoint sources), and management actions; and (8) implementation, enforcement, and monitoring plans. The primary target audience for these plans includes policy makers, the general public, and the regulated community (e.g., local governments and industries). Thus, the document will be written in a manner and level of detail that is easily understood and appreciated by both technical and nontechnical audiences.

Fifteen major steps have been identified to develop, produce, and implement each whole basin management plan. Although the basic structure and major responsibilities within the Water Quality Section will remain unchanged, implementation of a whole basin approach to water quality management will require increased information exchange and coordination, as well as more complex water quality modeling, data interpretation, and data base management than are currently employed. In particular, the ability to link water quality data and model projections for the multiple stream reaches within a basin, and to overlay and analyze other relevant types of information, such as land use, is a critical aspect and will be a primary benefit of whole basin planning. Thus, as part of the transition to whole basin planning, the Water Quality Section will initiate centralized data base management and more direct interactions and a closer working

relationship with the Center for Geographic Information Analysis, to take advantage of their Geographic Information System (GIS) capabilities.

North Carolina's commitment to whole basin planning and management is consistent with the goals and guidance of the federal Clean Water Act. Several sections of the Clean Water Act require or provide general support for the whole basin approach, including sections 201(c), 208, 303(d), 303(e), and 319. North Carolina has interpreted these sections to mean that management plans, addressing both point and nonpoint sources of pollution, should be developed and promulgated for each of the 17 major river basins within the state. Although research and resource needs remain, the NCDEM Water Quality Section is preceding, therefore, with the development and implementation of basinwide management strategies and whole basin management plans.

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1. INTRODUCTION

In 1990, the North Carolina Division of Environmental Management (NCDEM) Water Quality Section initiated plans for a whole basin approach to water quality management. Activities within the North Carolina Water Quality Program, including permitting, modeling and wasteload allocations, nonpoint source assessments, monitoring, special intensive studies, and planning, are to be coordinated and integrated for each of the 17 major river basins in the state. Water quality and aquatic resources will be assessed simultaneously throughout an entire river basin, leading to the development of basinwide water quality management plans and strategies. The overall goal is to develop consistent and effective long range management strategies that both protect the quality and intended use of North Carolina's surface waters and allow for sound economic planning.

This report provides a description of the proposed whole basin approach to water quality management in North Carolina. By documenting the program's objectives, major components, procedures, and schedule, it is intended to assist the NCDEM Water Quality Section with program implementation and to communicate North Carolina's rationale and approach to the U.S. Environmental Protection Agency (USEPA), other states, and other interested parties.

Activities and changes have been ongoing for several years within the NCDEM, which are not described in this document, to lay the foundation for whole basin planning and management. The Water Quality Section staff has been strengthened in key areas to provide the appropriate balance of skills and expertise needed to effectively implement whole basin management. Staff responsibilities and duties also have been reorganized to be consistent with the planned distribution of responsibilities for the whole basin planning initiative. Data base management and computational capabilities within the Water Quality Section have been enhanced, by supplying staff with personal computers or workstations, computer networking, improved software, and increased utilization of the Geographic Information System (GIS) technology. The writing of National Pollutant Discharge Elimination System (NPDES) permits has been automated, to minimize the backlog during the transition period, when shorter-term permits may be required. Finally, the advantages of a whole basin approach to water quality management have been broadly discussed within the NCDEM and also with the regulated community, to influence administrative philosophy and also generate support for the concept and program.

The remainder of this section provides further detail on (1) the specific objectives of the North Carolina Basinwide Water Quality Management Initiative, (2) the rationale for and benefits of whole basin management, and (3) the congressional mandate for whole basin planning. Subsequent sections describe the major components of a whole basin management plan (Section 2); the steps and tasks required to develop basinwide management plans (Section 3); the organization of the NCDEM Water Quality Section and specific responsibilities for developing and implementing whole basin plans (Section 4); schedules for program implementation (Section 5); data management approaches and needs (Section 6); and a summary of the critical remaining technical and policy issues and outside research and resource needs (Section 7).

1.1 OBJECTIVES OF WHOLE BASIN MANAGEMENT

The long-term objectives of North Carolina's Basinwide Water Quality Management Initiative are as follows:

- Implement a fully integrated approach to water quality assessment and management, incorporating (1) chemical-specific monitoring and regulations, (2) biocriteria, bioassessments, and biosurveys, (3) water quality modeling, (4) whole effluent toxicity permitting and testing, and (5) compliance and enforcement activities.
- Coordinate Water Quality Section staff activities to make efficient use of available resources and to improve program effectiveness and consistency in management decision-making.
- Identify priority problem areas and sources (both point and nonpoint) that merit particular pollutant control and enforcement efforts/resources, and regulation/statute modifications.
- Determine the optimal water quality management strategy and distribution of assimilative capacity[1] for each of the 17 major river basins within the state.
- Produce comprehensive basinwide management plans that communicate to policy makers and the general public NCDEM's rationale, approaches, and long-term management strategies for each basin.

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[1] Assimilative capacity is defined as the amount of pollutant(s) that a waterbody can receive (assimilate), from both point and nonpoint sources, and still maintain the corresponding water quality standards established to protect the best use of those waters.

- Implement innovative management approaches that both protect North Carolina's surface water quality and allow for sound economic planning and growth, and also encourage the equitable distribution of assimilative capacity.

- Increased assessment, through monitoring and modeling, of the interactions among pollutants and pollutant sources from a basin's headwaters to the river's mouth.

- Address more explicitly contributions from nonpoint sources, interactions between point and nonpoint sources, and options for nonpoint source pollutant reduction and controls.

- Establish basinwide total maximum daily loads[2] and avoid overallocation of assimilative capacity.

- Fulfill the requirements of the federal Clean Water Act and USEPA regulations in the most efficient and effective manner, by consolidating survey and reporting activities into an integrated whole basin management plan.

1.2 RATIONALE FOR WHOLE BASIN MANAGEMENT

The benefits of whole basin planning and management fall into three major categories: (1) improved efficiency, (2) increased effectiveness, and (3) consistency and equitability.

Efficiency: The whole basin approach is administratively efficient; staff activities are focused on a series of defined geographic areas in a scheduled manner. By focusing areas of the state covered in a specific year, travel and field sampling efforts are concentrated within particular basin(s), allowing for expanded station and parameter coverage and enhanced spatial and/or temporal resolution. Public notices and public hearings can be aggregated within each basin, increasing public awareness of and participation in the planning process. NPDES permit reissuance will be balanced so that approximately the same number of permits are issued each year; also wasteload allocation analyses can be conducted more efficiently if multiple dischargers within a given river basin or reach are considered simultaneously. As a direct result of increased

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[2] Total maximum daily load (TMDL) is defined as the sum of the individual wasteload allocations (i.e., that portion of a water's loading capacity allocated to one of its existing or future point sources of pollution) and load allocations for nonpoint sources and natural background. TMDLs can be expressed in terms of mass per time, toxicity, or other appropriate measure that relates to a State's water quality standard. Thus, the TMDL process provides for nonpoint source control tradeoffs.

efficiency, more may be achieved for a given level of funding and resource allocation, resulting in greater monitoring coverage and/or more sophisticated water quality assessments. In addition, as part of the transition to whole basin management, plans call for improved procedures for information transfer and data base management (see Section 6), which also will contribute to increased staff efficiency. Finally, the basinwide management plans that will result from these efforts are expected to consolidate many of the redundant survey and reporting requirements specified by the federal Clean Water Act (Figure 1).

Effectiveness: The whole basin approach is also more consistent with basic ecological principles of watershed management. Linkages between aquatic and terrestrial systems are addressed (e.g., contributions from nonpoint sources) and multiple inputs to aquatic systems, and potential interactive effects, are considered. Whole basin management will facilitate the incorporation of nonpoint source pollution assessment and controls, since these diffuse pollutant sources extend to the watershed boundaries and accumulate from a basin's headwaters. It also will encourage the integration of existing program components (chemical-specific monitoring and regulations; whole effluent toxicity testing and permitting; biocriteria, bioassessments, and biosurveys; water quality modeling; and compliance and enforcement activities) into a comprehensive, balanced water quality management program, taking full advantage of each type of information and approach. Finally, the development of basinwide strategies will formalize the process of long-range planning and add several new and innovative approaches to water quality assessment and management, including the following:

- development and application of basinwide surface water quality models that explicitly address the potential interactive effects of multiple pollutants and dischargers,
- evaluation of basinwide trends in water quality and biological indicators,
- periodic re-evaluation of use designations and correction of misclassifications,
- establishment of basinwide total maximum daily loads,
- development of basinwide management plans that jointly address point and nonpoint pollutant sources, and
- implementation of innovative management strategies, such as "agency banking" of assimilative capacity in anticipation of future growth, pollution trading, and industrial recruitment mapping.

Section of CWA	General Guidance	Reporting	Prioritizing	Monitoring	Modeling	Planning	Control	Comments
201 (c)	●							
208 (a-j)	●	●	●	●		●	●	208 is currently inactive, NPS controls generally voluntary
209	●		●			●	●	209 focus is on national plan and large river basins, most states did not participate
210		●		●				Annual survey to determine efficiency of operation and maintenance of treatment works
302	●						●	. . alternative effluent control strategies to control point sources for the restoration of water quality to the desired level.
303 (d)	●	●	●		●	●	●	. states are to establish TMDLS for a priority list of nonattainment waters for each pollutant that the Administrator identifies as suitable . .
303 (e)	●		●		●	●	●	Explicitly calls for areawide planning process that includes consideration of both point and nonpoint source pollutants.
304		●	●			●	●	
305 (b)		●				●		Water Quality Inventory Biennial reporting on the use support, status of surface waters and the achievements of the regulatory program and general assessment guidelines
314(a)		●				●		Clean Lakes Bienneal reporting on the nutrient (eutrophication) status of lakes
319 (a)	●	●	●			●	●	State Management Plans for identification, priority setting of waters impacted by nonpoint source pollution
319 (b)	●	●	●			●	●	This section also includes guidance on the development and implementation of control programs

Figure 1. Survey and reporting requirements of the federal Clean Water Act that can be satisfied through whole basin management and basinwide management plans.

Consistency and Equitability: The whole basin management plans will provide a focus for management decisions. By clearly defining the program's long-term goals and approaches to water quality protection, these plans will facilitate consistent decision-making, not only within a given basin but also statewide. Consistency, together with greater attention to long-range planning, in turn, will promote a more equitable distribution of assimilative capacity, explicitly addressing potential trade-offs among pollutant sources (point and nonpoint) and allowances for future growth. In addition, the availability of basin plans, presented in a consistent format, will allow policy makers and the general public to more easily understand and evaluate the background, methods, and rationale for management decisions, thereby creating a more stable foundation for future planning.

1.3 CONGRESSIONAL MANDATE FOR WHOLE BASIN PLANNING

The whole basin approach to water quality management derives its congressional support from several sections of the federal Clean Water Act (Table 1). The most explicit of these sections is 303(e), requiring each state to develop an areawide planning process for all navigable waters in the state, to address a broad range of water quality issues. Two other sections implicitly require or provide general support for the whole basin approach: Sections 303(d) and 319. Section 303(d) requires states to define total maximum daily loads, and associated wasteload allocations for point sources and load allocations for nonpoint sources, to ensure the attainment of water quality standards within all surface waters. Section 319 (Nonpoint Source Management Program), like Section 303(e), directly calls for a watershed by watershed management program. North Carolina has interpreted these sections of the Clean Water Act to mean that management plans, addressing both point and nonpoint sources of pollution, should be developed and promulgated for each major river basin in the state.

Other sections of the Clean Water Act provide less direct yet tangible support for the whole basin planning approach. Section 201 includes general recommendations for conducting waste treatment management on an areawide basis, and many such areawide planning programs were started through Section 208. Since the earlier planning efforts for Section 208, the North Carolina water quality program has developed many of the organizational structures, assessment methods,

Table 1. Sections of the Federal Clean Water Act that Require or Encourage Whole Basin Planning and the Development of Whole Basin Management Plans.

Section	Congressional Mandate
201(c)	To the extent practicable, waste treatment management shall be on an areawide basis and provide control or treatment of all point and nonpoint sources of pollution including in place or accumulated pollution sources
208	Several clauses of this section call for areawide planning, reporting, and control of point and nonpoint sources The two clauses cited below are presented as examples only and are not intended to represent the entire scope of this section.
208(a)	Encourage and facilitate the development and implementation of areawide waste treatment management plans.
208(b)	Section 1 - Not later than one year after the date of designation, the organization shall have in operation a continuing areawide waste treatment management planning process consistent with section 201
303(d)	Subsection 1A - Each state shall identify those waters within its boundaries for which the effluent limits required by 301(b)(1) A and B are not stringent enough to complement any water quality standards applicable to such waters. The state shall establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters
303(d)	Subsection 1C - For each water identified in paragraph 1A, the state shall establish the total maximum daily load, for each pollutant that the Administrator identifies as suitable for such a calculation Such loads shall be established at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limits and water quality.
303(e)	Subsection 3 A-H The administrator shall approve any continuing planning process....which will result in plans for all navigable waters within such state, which include but are not limited to A - effluent limits and schedules of compliance at least as stringent as those required by 301(b), 306, and 307; B - the incorporation of all elements of any applicable areawide waste management plans under section 208 and applicable basin plans under section 209; C - total maximum daily loads for pollutants per 303(d); D - procedures for revision;

(continued)

Table 1. Sections of the Federal Clean Water Act that Require or Encourage Whole Basin Planning and the Development of Whole Basin Management Plans. (Continued)

Section	Congressional Mandate
303(e) cont.	E - adequate authority for intergovernmental cooperation, F - adequate implementation including schedules for compliance, G - controls over the disposition of all residual waste; and H - an inventory and ranking, in order of priority, of needs for construction of waste treatment works
319(a)	Nonpoint Source Management Program, State Assessment Reports - The Governor of each state shall submit a report which (a) identifies waters which require control of nonpoint sources to attain water quality standards, (b) identifies those categories of nonpoint sources (or specific sources) which add significant pollution to each portion of waters identified in a, (c) describes the process for identifying best management practices and measures to control each category, and (d) identifies and describes state and local programs for controlling nonpoint sources.
319(b)	State Management Plans - The Governor of each state shall submit a management program. Each management program shall include (a) identification of the best management practices which will be undertaken, (b) identification of programs (both regulatory and nonregulatory) to achieve implementation of best management practices by categories, (c) a schedule of annual milestones for implementation, (d) a certificate from the State Attorney General that the laws of the state provide adequate authority to enforce b, or schedule to seek additional authority, and (e) sources of federal or other assistance and funding.
319(b)	Section 4 - A state shall, to the maximum extent practicable, develop and implement a management program under the subsection on a watershed by watershed basis.

modeling techniques, and regulations necessary to enable the effective implementation of areawide planning and management.

North Carolina's commitment to whole basin management and planning is consistent, therefore, with the stated goals, objectives, and guidance of the federal Clean Water Act. In addition, whole basin management is expected to further the objectives of other sections of the Clean Water Act (Table 2), which do not require, but would benefit from, the whole basin planning process and approach as envisioned by the NCDEM Water Quality Section.

Table 2. Sections of the Federal Clean Water Act that Would Be More Completely and Efficiently Implemented Through Whole Basin Management and Planning.

Section	Congressional Mandate
209(a)	The President, acting through the Water Resources Council, shall as soon as practicable prepare a Level B plan under the Water Resources Planning Act for all basins in the United States Priority should be given to areas designated under 208(a) paragraphs 2,3, and 4 as water quality problem areas This section was intended to establish a national planning framework, different in scale and concept from state sponsored whole basin planning. This section demonstrates that Congress recognizes the importance and utility of the basin as a basic planning unit.
210	Annual Survey - The administrator shall annually make a survey to determine the efficiency of operations and maintenance of treatment works conducted under this Act. The survey of treatment plants is an important step in determining the true wasteload discharges in a given basin, which may differ from the wasteload allocations because of noncompliance This information is critical in determining the remaining assimilative capacity. This would be a routine part of the five year basin plan updates.
214	Public Information - The Administrator shall develop and operate within one year a continuing program of public information and education on recycling and reuse of wastewater. The public education sections of the planning document and the public hearings held for each draft basin plan provide an excellent forum for public education and information concerning water quality issues, including recycling and reuse of wastewater
302	Water Quality Related Effluent Limitations - This section provides to the administrator or delegated program the authority to develop water quality-based effluent limitations when the technology-based effluent limits are not sufficient to maintain water quality. The section also provides the authority for using alternative effluent control strategies to restore water quality to the desired level The alternative effluent control strategies could include such basin management tools as assimilative capacity "banking."
304(l)	Impaired Waters - This subsection has several requirements including the development of lists of waters that fall into various categories of nonattainment and which need additional pollution control (point source and nonpoint source), identification of offending point sources; and development of a control strategy for each point source in order to achieve the water quality standard as soon as possible. Whole basin planning would include a comprehensive analysis of the inputs to each basin that may cause water quality degradation This approach allows for more objective priority setting and determination of management strategies.
305(b)	Water Quality Inventory - Each state will submit biennially a report including the following:
	A - a description of the water quality of all navigable waters;

(continued)

Table 2. Sections of the Federal Clean Water Act that Would Be More Completely and Efficiently Implemented Through Whole Basin Management and Planning. (Continued)

Section	Congressional Mandate
305(b) cont.	B - an analysis of the extent to which all navigable waters provide for the protection and propagation of a balanced population of shellfish, fish, and wildlife, and allow recreational activities in and on the water, C - an analysis of the extent to which elimination of pollutant discharges and desired levels of water quality have been or will be achieved and recommendations for additional action, D - an estimate of (i) the environmental impact, (ii) economic and social costs needed to achieve the objectives of the act, (iii) the economic and social benefits of such achievements, and (iv) estimated date of achievement, and E - description of the nature and extent of nonpoint sources, and recommended programs.
314(a)	Clean Lakes - Each state shall submit biennially the following: A - an identification and classification according to eutrophic condition of all publicly owned lakes, B - a description of procedures, processes, and methods (including land use requirements) to control sources of pollution of such lakes; C - a description of methods to restore the quality of such lakes, D - a description of methods to mitigate harmful effects of high acidity and removing toxic materials, E - a list of publicly owned lakes for which uses are known to be impaired; and F - an assessment of the status and trends in lake water quality and the nature and extent of pollution loading from point and nonpoint sources.

Sections 305(b) and 314 of the Clean Water Act both consist primarily of reporting requirements on the status of surface waters within the state. Each whole basin plan will include a comprehensive assessment of the current condition of waters in the basin, although these plans will be updated on a five-year cycle rather than biennially Each year, however, updated reports will be available for one or more basins (see Section 5).

2. MAJOR COMPONENTS OF A WHOLE BASIN MANAGEMENT PLAN

Each whole basin management plan will contain eight major sections or components: (1) an introduction, describing the purpose and format of the plan, (2) a general basin description, (3) an assessment of the current status of water quality and biological communities in the basin, (4) an overview of existing pollutant sources, (5) a discussion of the major water quality concerns and priority issues in the basin, (6) the long-range management goals and general management strategy, (7) the recommended total maximum daily loads and management actions, and (8) implementation, enforcement, and monitoring plans. A generalized outline for a whole basin management plan is presented in Table 3. Brief descriptions of each component are provided in the subsections that follow.

The primary target audience for basin plans includes policy makers, the general public, and the regulated community (e.g., local governments and industries). Thus, the document must be written in a manner and level of detail that is easily understood and appreciated by both non-technical and technical audiences. Ample use will be made of maps (using a Geographic Information System; see Section 6) and other illustrations. Detailed technical material and supporting documentation will be provided in appendices.

The whole basin management plans are also intended to satisfy many of the Clean Water Act and USEPA reporting requirements (see Figure 1). The relationship between these reporting requirements and the proposed basin plan format is illustrated in Figure 2. To facilitate the use of these basin plans by USEPA personnel, a "crosswalk" table will be provided at the beginning of each plan, identifying the section(s) and page numbers of the report that apply to sections of the federal Clean Water Act.

All basin management plans will conform to the same basic format and outline, to streamline plan preparation and facilitate among-basin comparisons. Specific procedures for document preparation, including formats for figures and tables, are currently under development, in conjunction with the development and refinement of procedures for data analysis and management (see Section 6).

Table 3. General Outline for A Basinwide Management Plan

Executive Summary

1. Introduction

1.1 Purpose of Plan
1.2 Guide to the Management Plan

2. General Basin Description

2 1 Physical and Geographical Features
- o Map of boundaries within state
- o General data surface area of drainage basin; stream miles; acres of lakes, estuaries, and wetlands
- o Ecoregions and subbasins (maps and descriptions)

2.2 Land and Water Uses and Overview of Pollutant Sources
- o General land-use patterns, cities, population distribution, location and type of industry and agriculture (including animal and silvaculture operations)
- o Major uses of surface waters (classifications)
- o Numbers of dischargers and major categories, number of nondischarge permits

3. Current Status of Water Quality and Biological Communities

3.1 Sources of Water Quality Data
- o NCDEM chemical and biological data (benthos, weeds, algal, etc), numbers of stations and special studies (map of sites by subbasin)
- o NCDEM toxicity testing (map)
- o Facility compliance data
- o Data and reports from other agencies

3.2 Methods to Interpret Water Quality Data

3.2 1 Use Support Designations
- o Water quality standards and designated uses
- o Use support status definitions
- o Interpretation of water quality data to determine use support status

3.2 2 Statistical Summary of Water Quality Data
- o Description of statistical interpretation methods

3 3 Results of Subbasin Water Quality Data Analyses

3.3 1 Use Support
- o For each subbasin, discussion of use support status and pollutants impacting nonattainment in water-quality limited areas
- o Map of use support and graphics

3.3.2 Statistical Summary
- o Statistical summary of major parameters for appropriate stations and discussion of areas of concern

(continued)

Table 3. General Outline for A Basinwide Management Plan (Continued)

4. Existing Pollutant Sources and Loads

- 4.1 Major Categories and Types of Pollutants
  - 4.1.1 Point Sources
  - 4.2.2 Nonpoint Sources
- 4.2 Data Sources and Assessment Methods
  - o NPDES data
  - o Nonpoint Source Assessment Report
  - o Landuse/erosion analysis
  - o Remote sensing/aerial photography
  - o Pollutant loading analysis
- 4 3 Subbasin Summaries
  - o Identify and discuss major sources of point source pollutants
  - o Identify and discuss major sources of nonpoint source pollutants
- 4.4 Pollutant Loading Analysis
  - 4.4.1 Oxygen consuming waste (BOD)
  - 4.4.2 Nutrient budgets
  - 4 4.3 Toxics

5. Major Water Quality Concerns and Priority Issues

- 5 1 Parameters and Issues of Concern
  - o Highly valued water resources
  - o Sensitive or impaired biological resources
  - o Problem pollutants
- 5 2 Geographic Areas in Need of Targeting (maps)

6. Long-Range Management Goals and General Management Strategy

- 6.1 Projected Trends in Basin Development
- 6.2 Long-Term Management Goals and Objectives
- 6.3 General Management Strategy and Approach

7. Recommended Total Maximum Daily Loads (TMDLs) and Management Actions

- 7.1 North Carolina's Approach to TMDLs
- 7.2 Oxygen Consuming Wastes
  - 7.2.1 Assimilative Capacity
    - o Total
    - o Remaining
  - 7.2.2 Control Strategies
    - 7.2.2.1 Wasteload and Load Allocations -- Quantitative TMDLs
      - o Point source
      - o Nonpoint source
    - 7.2 2.2 Narrative TMDLs
      - o Point source
      - o Nonpoint source

(continued)

Table 3. General Outline for A Basinwide Management Plan (Continued)

7.3 Nutrients
- 7.3.1 Assimilative Capacity
  - o Total
  - o Remaining
- 7 3 2 Control Strategies
  - 7.3 2 1 Wasteload and Load Allocations -- Quantitative TMDLs
    - o Point source
    - o Nonpoint source
  - 7 3.2.2 Narrative TMDLs
    - o Point source
    - o Nonpoint source

7 4 Toxics
- 7 4.1 Assimilative Capacity
  - o Total
  - o Remaining
- 7.4.2 Control Strategies
  - 7 4.2.1 Wasteload and Load Allocations -- Quantitative TMDLs
    - o Point source
    - o Nonpoint source
  - 7 4.2 2 Narrative TMDLs
    - o Point source
    - o Nonpoint source

7.5 Other Pollutants
- 7.5.1 Assimilative Capacity
  - o Total
  - o Remaining
- 7.5 2 Control Strategies
  - 7.5.2.1 Wasteload and Load Allocations -- Quantitative TMDLs
    - o Point source
    - o Nonpoint source
  - 7.5.2.2 Narrative TMDLs
    - o Point source
    - o Nonpoint source

8. Implementation, Enforcement, and Monitoring Plans

8.1 Implementation and Enforcement
- 8.1 1 Point Sources
- 8.1.2 Nonpoint Sources

8.2 Monitoring
- 8.2.1 Effluent Monitoring
  - 8.2.1.1 Water Chemistry
  - 8.2.1.2 Whole Effluent Toxicity Tests
- 8 2.2 Ambient Monitoring
  - 8 2 2.1 Water Chemistry
  - 8 2.2.2 Toxicity Testing
  - 8 2.2.3 Biological Communities and Fish Tissue Body Burden
  - 8 2 2.4 Sediment Chemistry

	Clean Water Act Sections			
Sections of Whole Basin Plan	303d	305b	314	319
1. Introduction				
2 General Basin Description		●		
3 Current Status of Water Quality and Biological Communities		●	●	
4. Existing Pollutant Sources and Loads				
o Point Sources		●		
o Nonpoint Sources		●		●
5 Major Water Quality Concerns and Priority Issues	●	●	●	●
6. Long-Range Management Goals and General Management Strategy				
6 1 Projected Trends in Basin Development		●	●	
6.2 Long-Term Mgmt. Goals & Objectives		●		
6 3 General Mgmt Strategy & Approach	●	●	●	●
7. Recommended Total Maximum Daily Loads and Management Actions				
7.* Pollutant Categories				
7 *.1 Assimilative Capacity	●			
7.*.2 Control Strategies	●		●	●
8 Implementation, Enforcement, and Monitoring Plans				
8.1 Implementation/Enforcement (PS & NPS)				
8.2 Monitoring				
8 2.1 Effluent Monitoring				
8 2 2 Ambient Monitoring				

Figure 2. Relationship between the sections of a whole basin management plan and the specific reporting requirements of the federal Clean Water Act.

2.1 INTRODUCTION

The introductory section of the whole basin plan will provide a nontechnical description of the water quality planning process, the whole basin concept, and the purpose of the plan. The purpose of the whole basin plan is to report to citizens, policy makers, and the regulated community on the current status of surface waters in the basin, identify major water quality concerns and issues, summarize projected trends in development and water quality and the long-range water quality goals for the basin, present recommended management options, and discuss implementation plans. The plan will allow citizens and policy makers access to water quality information and management plans for any of the 17 basins of interest to them. To facilitate the use of the plan, this section also will include a guide to the document format, explaining where and how to find various types of information.

2.2 GENERAL BASIN DESCRIPTION

The second section of the basin management plan will provide an overview of the general physical and geographic characteristics of the basin, including the following:

- the location of the basin within the state, and the boundaries and size of the basin and important subbasins;
- surface waters (lakes, reservoirs, streams, rivers, and estuaries) in the basin, their size (length, area, volume, and flow rates) and designated use classifications;
- physiographic information, geology, and soil types;
- land and water use patterns and population densities;
- delineation of regions of ecological similarity (e.g., ecoregions, Omernik 1987), that is, areas that are relatively homogeneous as defined by similarity of climate, landform, soil, potential natural vegetation, hydrology, and other ecologically relevant variable(s); and
- the numbers and major categories of dischargers and pollutant sources, in particular the relative importance of point and nonpoint sources.

2.3 CURRENT STATUS OF WATER QUALITY AND BIOLOGICAL COMMUNITIES

The available data on water quality and biological communities will be reviewed and interpreted to assess current conditions and the status of surface waters within the basin. The section will begin with a summary of data sources (see Section 2.3.1) and the methods for data analysis (see Section 2.3.2). These subsections will be brief and nontechnical, providing general background information. Detailed technical descriptions of the data and data analysis methods will be included in appendices and other supporting documentation. The results and major conclusions from these analyses will then be presented in the final subsection, describing the current water quality status (see Section 2.3.3).

2.3.1 Sources of Water Quality Data

The amounts and types of data available are likely to vary among basins and water bodies, but may include (1) NCDEM water quality monitoring data from the ambient water quality monitoring network (chemistry and biology, e.g., surveys of benthic, algal, and fish communities); (2) ambient water quality data collected by individual dischargers as part of the NPDES permit monitoring requirements; (3) special studies on water quality and biological communities conducted by the NCDEM; (4) sediment analyses for metals, organics, sediment oxygen demand, or other parameters; (5) chemical analyses of contaminant concentrations in fish and other biota, (6) ambient toxicity tests, and (7) additional information on water quality from other agencies and researchers. Substantial data collection activities will precede the preparation of the basin plan, as described in Section 3. These survey and monitoring efforts will focus on (1) priority areas within the basin and (2) "gaps" in the data base, either specific locations with insufficient data or data needs for particular parameters or types of information.

2.3.2 Methods to Interpret Water Quality Data

Two major approaches to data analysis and interpretation will be used, relying on (1) use support designations and (2) statistical data summaries. Each of the relevant use support status designations will be defined, and the interpretation of water quality data to determine use support status will be explained. Current water quality standards and biocriteria (both narrative and

numerical) that apply to individual waters within the basin will be discussed, as well as the rationale for any special regulations or criteria (e.g., Nutrient Sensitive Waters). The scientific and legal basis for these standards and criteria will be briefly reviewed (citing supporting documentation as needed).

Statistical methods used for data analysis and summaries also will be described. For example, box and whisker plots may be used to evaluate differences between upstream and downstream stations, or for temporal comparisons at the same station. Thus, a brief explanation on the interpretation of box and whisker plots will be included.

2.3.3 Results of Subbasin Water Quality Data Analyses

Analyses of the available data on ambient water quality, sediment chemistry, and biological communities will be conducted to provide an integrated summary of current conditions in the basin's surface waters. Important results from these analyses will be presented in a reader-friendly format, that clearly conveys key points without overwhelming the reader with excessive detail.

The chemical and biological measurements at a given site will be compared with (1) established water quality standards and biocriteria and (2) expected "norms" for the site. The use of site-specific or regional reference sites, to define these expected "norms," is particularly important for assessing the condition of biological communities. Large river basins are likely to include multiple ecoregions (or regions of ecological similarity; see Section 2.2), from headwater reaches in the North Carolina Mountain ecoregion to estuarine waters in the North Carolina Coastal ecoregion. To the degree possible, results from these analyses will be presented as summary indices employed by the NCDEM as indicators of surface water chemical and biological integrity.

Whole basin management plans are a direct extension of current activities and analyses within the Water Quality Section of the NCDEM. An important benefit to be derived, however, is the integration of these various information sources into an overall, integrated assessment of conditions in the basin's surface waters. Therefore, substantial attention will be paid to comparing and contrasting data on surface water chemistry, sediment chemistry, biological communities, and

ambient toxicity tests. In addition, future efforts will focus on the development of improved approaches for integrating the diversity of data collected into summary indices of surface water quality.

Uncertainties regarding the assessment of conditions within the basin's waters also will be recognized and discussed. Uncertainties may arise from insufficiencies in the data base, which may be resolved through additional data collection in future years, or uncertainties relating to data interpretation and regulatory constraints. The effects of these uncertainties on management decisions, such as the long-range management strategies or specific wasteload allocations, will be noted.

2.4 EXISTING POLLUTANT SOURCES AND LOADS

The locations and characteristics of existing pollutant sources (both point and nonpoint) will be described. The majority of the information will be presented via maps and summary tables, with a minimum of text.

2.4.1 Major Categories and Types of Pollutants

This section will summarize relevant information regarding pollutant categories and specific types of pollutants of concern in the basin, with subsections on point and nonpoint sources. The types of environmental impacts associated with each major pollutant, general information on fate and transport, and categories of potential sources will be reviewed.

2.4.2 Data Sources and Assessment Methods

Point sources are monitored directly and data on point source discharges are readily accessible through NPDES permits and compliance monitoring. By contrast, nonpoint source pollutant loadings must be estimated indirectly, based in large part on information obtained from other agencies. The amount of information available will vary among basins, depending on access to land use and other relevant data; however, in general, estimates of nonpoint source pollutant loadings may be less precise and detailed than that provided for point sources. Information

already compiled from other resource agencies is summarized in the "Nonpoint Source Assessment Report." The Water Quality Section also may use erosion analysis and remote sensing/aerial photography to assess land uses and associated nonpoint source pollutant loadings. Finally, the subsection will discuss methods for combining point and nonpoint loading estimates to conduct an integrated total pollutant loading analysis for each subbasin.

2.4.3 Subbasin Summaries

The locations of major point sources as well as summary information on the magnitude and composition of discharge waters will be presented in one or a series of maps for the basin. The number of maps used will vary depending on the size and complexity of the basin. These maps will be keyed to summary tables that present additional summary data on discharge characteristics, including existing NPDES permit limits and a summary of the facility's compliance record (more detailed information will be provided in an appendix). Discussions in the text will focus on (1) the general types, size, and importance of point source dischargers in the basin, (2) the locations and types of major point sources, and (3) the record of compliance with existing NPDES permits, in the basin overall and for specific major point sources. For urban sources, problems and ongoing programs for handling stormwater outflows will be discussed.

For each major type of nonpoint source (e.g., agricultural lands, urban areas) and source unit (i.e., specific land area) estimates will be provided on the magnitude and characteristics of pollutants input to surface waters. As for point sources, the locations of nonpoint source units will be delineated on maps coded by source type and/or magnitude, and keyed to summary tables that present specifics on the estimated types and magnitude of pollutants contributed by each source unit as well as the relative degree of certainty associated with these estimates. The text will discuss (1) the importance of nonpoint sources in the basin, (2) methods and associated uncertainties for estimating nonpoint source contributions, (3) major types of pollutants contributed and where, and (4) existing programs and ongoing efforts to help reduce or minimize nonpoint source pollutants and the success of these programs to date (in terms of, for example, extent of landowner participation in voluntary programs, rather than the impact of the program on water quality).

2.4.4 Pollutant Loading Analysis

This section will present the results of the total pollutant load analysis, combining point and nonpoint sources, for each major pollutant for which sufficient data are available. Pollutants will be discussed by category: (1) oxygen consuming waste (e.g., biological oxygen demand, BOD), (2) nutrients, and (3) toxics. Uncertainties associated with the estimates also will be addressed. This is not a traditional ecological input/output budget analysis; no output measurements or estimates will be included in the calculation. Surface water assimilative capacities will be discussed in a later section of the whole basin plan (see Section 2.7).

2.5 MAJOR WATER QUALITY CONCERNS AND PRIORITY ISSUES

Based on the information presented in Sections 2.3.3, 2.4.3, and 2.4.4, this section of the whole basin management plan will identify and prioritize the major water quality concerns in the basin, e.g., problem pollutants, sensitive or impaired biological resources, and highly valued water resources. Waters with special use designations, such as Outstanding Resource Waters (ORWs), High Quality Waters (HQWs), and Nutrient Sensitive Waters (NSWs), will be delineated and prioritized consistent with current regulatory guidelines and established implementation plans.

The severity of water quality problems will be defined relative to (1) established water quality standards and biocriteria, (2) the degree of impairment of the water's designated use, and (3) the ecological significance of any adverse effects. To the degree possible, the major pollutant sources (point and nonpoint) contributing to these water quality problems will be identified. Spatial correlations between the occurrence of water quality problems and the locations of major point and nonpoint sources may often be sufficient to establish causality. In other cases, more detailed analyses (including special field studies) and/or water quality modeling may be needed to determine the relative importance of and interactions among multiple pollutant sources. In all cases, it will be important to discuss the degree of certainty with which the causes of observed water quality problems can be determined, and the influence of any uncertainties on management decisions. These problem definition analyses will be used in developing prioritized management strategies, in particular the relative importance of controls on point versus nonpoint sources of pollutants.

Based on these analyses and the existing special use designations, high priority geographic areas and waters will be selected for targeting. These areas and waters will be the focus of the most intense management efforts and highly ranked by the NCDEM to encourage funding for implementation of best management practices.

2.6 LONG-RANGE MANAGEMENT GOALS AND GENERAL MANAGEMENT STRATEGY

The sixth major component of a whole basin management plan is the delineation of the long-range management goals and general management strategy or approach. This section provides a narrative discussion of (1) projected future growth trends and development in the basin; (2) the specific long-term water quality goals for waters within the basin (e.g., important water uses and/or ecological features to be protected or restored); and (3) the general management approach(es) and strategies to be employed to achieve these goals. Specific applications of these management strategies, e.g., modeling analyses to estimate wasteload allocations for individual point sources and proposed management actions, are described within the next major component/section of the whole basin plan (see Section 2.7).

2.6.1 Projected Trends in Basin Development

Long-range plans for economic growth and development in the basin and changes in population density will be summarized, as background information for defining the long-range goals and management strategies for water quality. Factors that may influence the magnitude and types of point and nonpoint pollution sources, and the potential impact of alternative water quality management strategies on future patterns of economic growth and development, will be discussed.

2.6.2 Long-Term Management Goals and Objectives

Long-term water quality goals will be defined for each management unit within the basin. For each goal, specific technical objectives also will be presented, delineating specific targets and metrics for tracking the progress toward achieving the overall water quality goal. For example, for waters classified as Outstanding Resource Waters, one long-term goal may be to protect and

maintain the natural integrity of the biological communities inhabiting the waterbody. One metric of biotic integrity for small streams is the EPT (Ephemeroptera, Plecoptera, Tricoptera) taxa richness index for benthic macroinvertebrates, with values above 41 expected in natural, unimpacted small streams in, for example, the North Carolina Mountain ecoregion (Lenat 1988). Thus, for an Outstanding Resource Water in the North Carolina Mountain ecoregion, for which the long-term goal is to protect the natural biotic integrity, an appropriate associated technical objective for this water would be to maintain values for the EPT taxa richness index above 41 (based on surveys of benthic macroinvertebrates as defined in Lenat 1988).

In some cases, the long-term water quality goals and objectives for a waterbody may be adequately defined by the current water use classification and associated water quality standards. Generally, however, it will be desirable to expand beyond these chemical-specific standards to (1) account for site-specific factors that may justify higher or lower criteria values to protect designated uses, (2) account for pollutant interactions, (3) encompass biological and ecological indices of surface water quality, and (4) better integrate and utilize the full suite of monitoring data collected, including ambient water chemistry, sediment chemistry, biological surveys, pollutant loadings and bioaccumulation in aquatic biota, and ambient toxicity tests. In addition, the long-term water quality goals and objectives may, on occasion, call for improved water quality conditions that exceed the requirements of the current water use classification.

An underlying goal of each whole basin management plan is to promote the optimal distribution of assimilative capacity, that is, the allocation of allowable pollutant loadings among individual point sources and also categories of nonpoint sources that (1) achieves the highest possible level of water quality for the lowest possible cost and with the minimum possible disruption of long-term economic growth and development, (2) maintains water quality at or above that required to achieve the long-term water quality goals and objectives defined above, and (3) represents, to the degree possible, a fair and equitable distribution of assimilative capacity among potential users. For example, a plan may require waste treatment facilities with outdated control technologies to be upgraded first, while allowing newer facilities a longer time frame to achieve higher levels of treatment, in order to spread out the economic burden in a reasonable manner.

2.6.3 General Management Strategy and Approach

The most challenging aspect of the whole basin management plan is the development of a long-term management strategy and approach. The management strategy will provide the basis for all subsequent management decisions. Thus, it must clearly define the rationale, decision analysis framework, methods, and criteria to be used for all decisions regarding the allocation of assimilative capacity among point and nonpoint sources. Innovative approaches to be applied to encourage water quality protection also will be described, including procedures for

- "agency banking" of assimilative capacity by the NCDEM, to provide for potential future growth and development in the basin;
- pollution trading among permitted dischargers, or between point and nonpoint sources, adding flexibility to the permitting system and also using the free market system as an aid to identifying the most cost effective solution to water quality protection;
- industrial recruitment mapping, providing specific recommendations on the types of industry and land development best suited to the basin's long-term water quality goals and also an individual basin's ability to assimilate a particular type or quantity of discharge or nonpoint source pollutants; and
- consolidation of wastewater discharges, which may result from economic considerations and be easier to coordinate with permits in similar geographic areas being issued at similar times.

Input from local authorities, regulated industries, landowners, and other interested parties will be actively sought during development of these basinwide strategies (see Section 3). By accommodating, to the degree possible, local needs and preferences, the probability of the plan's long-term success can be increased.

2.7 RECOMMENDED TOTAL MAXIMUM DAILY LOADS AND MANAGEMENT ACTIONS

This component of the whole basin plan presents the results from applying the management strategy and procedures (described in the preceding section of the plan) to determine the optimal distribution of assimilative capacity given current conditions, information, and constraints, and specific recommended management actions. These results provide the technical basis for the issuance/renewal of NPDES permits and for decisions regarding nonpoint source control or

reduction programs. For each management unit, this will involve the following:

1. estimating the **Total Maximum Daily Load** (total assimilative capacity), in cases where a numerical criterion can be established;

2. determining the **remaining assimilative capacity** (if any) given current point and nonpoint source pollutant loadings, or whether the water's assimilative capacity has been exhausted or exceeded;

3. recommending **wasteload allocations**, specialized treatment requirements, or minimum technology requirements for individual point sources and **load allocations** or best management practice approaches for nonpoint sources that will achieve the goals and objectives of the whole basin management strategy; and

4. developing a **narrative management action plan** that describes the specific actions that will be taken to restore degraded surface waters and to protect other waters.

Organization of the section within the whole basin plan will be by major pollutant category (e.g., oxygen consuming wastes, nutrients, toxics), with subsections on assimilative capacity (total and remaining) and control strategies, including quantitative total maximum daily loads (TMDLs) and calculated wasteload and load allocations, where possible, as well as narrative actions plans (see Table 3).

Estimates of total maximum daily loads (TMDLs), the remaining assimilative capacity, wasteload allocations (WLAs), and load allocations (LAs) will rely primarily on water quality modeling. However, in developing and applying these models, the following must be addressed:

- Modeling analyses must be fully integrated and consistent with all other components of the NCDEM Water Quality Program; the available chemical and biological monitoring data will be extensively used for model calibration and verification.

- Models, and decisions regarding TMDLs, WLAs, and LAs, must account for interactions among pollutants and pollutant sources (both point and nonpoint). Background ambient data will be considered in defining downstream limits to promote longitudinal integration in assessing and assigning assimilative capacity.

- Safety factors must be applied in calculating TMDLs, WLAs, and LAs to account for modeling uncertainties. The influence of uncertainties on management decisions will be explicitly discussed.

- Discussions of modeling results for point sources must address the discrepancies between the predicted and observed assimilative capacity (10-year, 7-day [7Q10] low flow versus

average flow), the magnitude of the difference between the 7Q10 and average flows, and therefore the magnitude of the "safety factor."

- Nonpoint source contributions occur primarily during stormflow. Thus, modeling analyses based on low (7Q10) flows are inappropriate. Given the differences in modeling approaches for point sources (focusing on low flows) and nonpoint sources (focusing on high flows), methods must be developed for integrating analyses of point and nonpoint pollutant sources, and combining WLAs and LAs, to avoid overallocation of the basin's assimilative capacity in management plans.

- Calculations of the remaining assimilative capacity must also account for problems in compliance with existing permits. Safety factors built into calculations of TMDLs, WLAs, and LAs will consider anticipated compliance problems.

Portions of the whole basin management plan may require changes or additions to existing water quality statutes, rules, regulations, or standards, in particular for nonpoint source management and controls. These needed rule/regulation revisions will be clearly identified. As discussed in Section 3, efforts to obtain these revisions will be initiated early on in the process of developing the whole basin management plan.

2.8 IMPLEMENTATION, ENFORCEMENT, AND MONITORING PLANS

The final component of the whole basin management plan will outline plans for program implementation and enforcement as well as ambient and effluent monitoring. Implementation and enforcement activities will be described separately for point and nonpoint sources. For point sources, specific procedures, and the associated rationale, will be defined for assessing compliance with and for enforcement of NPDES permit limits. The influence of measurement and test variability will be discussed as it relates to the criteria used to identify dischargers that are out of compliance or in violation of established NPDES permit limits. Specific programs for implementing nonpoint source management and controls also will be described, including procedures for issuing nondischarge and stormwater permits.

Monitoring of the chemical and biological status of receiving waters provides important feedback on the success of the basin management strategy. As discussed in Section 2.3.1, the monitoring data collected will include information on (1) ambient water chemistry, (2) sediment chemistry, (3) biological communities, (4) contaminant concentrations in fish and other biota, and (5) ambient

toxicity. The specific parameters measured will relate directly to the long-term water quality goals and objectives defined within the basinwide management strategy (see Section 2.6.2). The whole basin plan, updated at five year intervals (see Section 5), will provide the opportunity to integrate these data to reassess the condition of waters within the basin and, thus, the program's success.

Monitoring data are collected both by the NCDEM Water Quality Section (and cooperating federal agencies and researchers) and by individual point source dischargers. Thus, the whole basin plan also will discuss the types of ambient and effluent monitoring requirements to be imposed as part of NPDES permits, including a justification and rationale for these monitoring requirements.

3. PROCEDURES FOR DEVELOPING WHOLE BASIN PLANS

Two major tasks must be completed as part of the transition to a whole basin approach to water quality management:

1. Prepare a detailed procedures manual, outlining the steps, tasks, analyses, and time tables involved in developing a whole basin management plan and specifying data, table, and figure formats to be used in the plan.

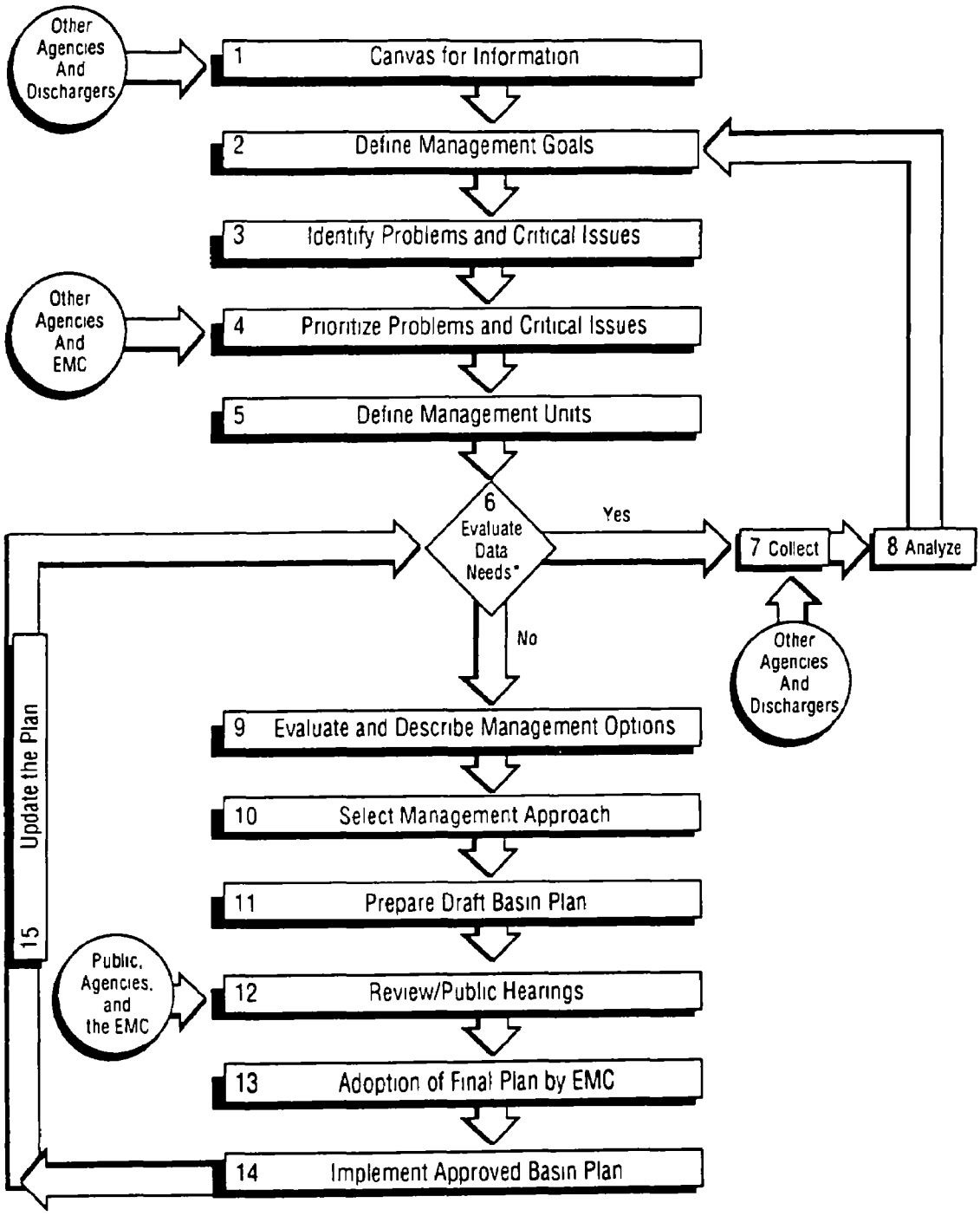
2. Describe the rationale for and procedures involved in any new management approaches to be applied as part of basinwide management strategies (e.g., agency banking of assimilative capacity, pollution trading, and industrial recruitment mapping).

The first of these documents will be used internally, to facilitate the preparation of each individual whole basin management plan. The second is intended for wider distribution and review, to stimulate early discussion and comments on novel approaches to water quality protection, in order to (1) encourage input and ideas from policy makers, local governments, regulated industries, and the general public and also (2) initiate necessary changes or additions to existing rules and regulations. These two documents will jointly describe NCDEM's methods and approach to whole basin planning. The individual basin management plans then focus on the specific decisions and solutions proposed for each of the state's 17 major river basins.

The major steps and information transfers involved in developing a given whole basin management plan are illustrated in Figure 3. Each of these steps is briefly described below. Dischargers, local governments, landowners, and others that may be impacted by the results of the whole basin planning process will be kept well informed throughout (e.g., information transfers at Steps 1, 4, 7, and 12).

<u>Step 1</u>: **Compile all existing relevant information** on basin characteristics and water quality. In addition to prior analyses and data available within the Water Quality Section, other state agencies, local and federal agencies, and researchers will be canvassed for relevant background information on economic growth and development in the basin, land use, soils, geology, water needs, uses, and problems, etc.

<u>Step 2</u>: **Define the water quality goals and objectives** for waterbodies within the basin, that



* Contingent on available resources

Figure 3 Major steps and information transfers involved in the development of a whole basin management plan

reflect both the existing water use classifications and projected future trends and long-term goals and objectives for water quality in the basin. These goals and objectives are subject to revision as additional data are gathered and analyzed, as illustrated in Figure 3.

Step 3: **Identify the critical issues and current water quality problems** within the basin and major factors (point and nonpoint sources) that contribute or cause these problems or concerns.

Step 4: In consultation with other government agencies and appropriate outside organizations and groups, **prioritize the basin's water quality concerns and critical issues** (e.g., water supply protection). Any management constraints (e.g., limitations on nonpoint source control options) also will be noted.

Step 5: **Define the subbasin management units**, considering basin hydrology, physiographic (ecoregion) boundaries, problem areas, and critical issues. Different sets of management units may be appropriate for different water quality parameters. Many of these management units may reflect existing use classifications and regulations, such as Nutrient Sensitive Waters, Outstanding Resource Waters, and High Quality Waters; others may be organized according to critical issues or water quality problems (e.g., urban areas, water supply areas, or specific water quality problem areas).

Step 6: **Evaluate additional data needs**. Additional data and information, over and above that already available, often may be needed to assess current conditions in the river basin and to formulate the optimal water quality management strategy. The following questions will be addressed:

- What are the major uncertainties that exist given the current information base, and how will these uncertainties influence the effectiveness of management decisions and the basin management plan?
- What resources are available for collecting additional data?
- What types of additional information are easily available (e.g., by taking advantage of existing maps and data bases, or input from local or regional experts); what level of effort and resources would be required to collect other types of data?
- How will the data be used once it's collected; how, when, and where should the data be

collected to fulfill these data needs?

- How will uncertainties be addressed if additional data cannot be collected; are there standard operating procedures that can be invoked in the absence of site-specific data?

- Based on the above, what are the priority data needs?

Step 7: **Collect the additional data**, as appropriate based on the assessment of data needs in Step 6. It is likely that phased data collections will be implemented, with each update of the basin plan (updated at five year intervals) building on the data gathered during the preceding planning period (see Step 15). Several different types of data may be obtained, requiring differing amounts of time and resources to collect (see Section 5):

7A. physical data (e.g., hydrological flow rates),

7B. ambient chemistry data (both routine ambient monitoring and special studies),

7C. biological surveys and monitoring,

7D. sediment chemistry and oxygen demand, and

7E. data needs from outside the Water Quality Section, e.g., land use information from the Center for Geographic Information and Analysis (CGIA).

Data will be collected by the staff of the Water Quality Section and by individual dischargers, as required by NPDES permits. Requests for any additional monitoring data from NPDES dischargers will be accompanied by a summary of the ongoing basin planning process and a justification for the data request.

Step 8: **Analyze, Integrate, and Interpret the data collected.** Results from the additional survey and monitoring efforts (collected in Step 7), in conjunction with the existing data base compiled in Step 1, will be used to (1) assess the current chemical and biological conditions in the basin (see Section 2.3.3) and (2) estimate TMDLs, WLAs, LAs, and the remaining assimilative capacity by applying water quality models (see Section 2.7).

Based on the results from these analyses and data interpretation, steps 2 through 5 will be revisited, to reevaluate the water quality goals and objectives for the basin, the priority water quality concerns and critical issues, and the subbasin management units.

Step 9: **Determine and evaluate the management options** for each management unit in the basin. As part of this process, first drafts of sections 1-5 of the whole basin management plan (see Table 3) will be prepared. In addition, preliminary drafts of Sections 6 and 7 (on the long-range management goals, strategy, and proposed management actions and total maximum daily loads) will be written outlining the full range of reasonable management options along with their pros and cons.

Step 10: Based on the analysis of management options prepared in Step 9, **select the final management approach** for the basin and subbasins. Final decisions regarding management approaches and specific management actions will be made by the Chief of the Water Quality Section in consultation with the NCDEM Director and Environmental Management Commission.

Step 11: **Complete the draft whole basin management plan**, in preparation for external review and comment. Additional modeling analyses may be required to finalize the WLAs and LAs; final drafts of all sections of the whole basin plan will be written, edited, and produced.

Step 12: **Distribute the draft plan** to appropriate agencies, the Environmental Management Commission, and the general public **for review and comment**. One or more public hearings will be held as part of the review process.

Step 13: **Revise the plan as needed** in response to comments and in a form that is acceptable to the Environmental Management Commission. Obtain formal approval of the final plan from the Environmental Management Commission.

Step 14: **Implement the management approaches**, including the point and nonpoint source control strategies defined in the plan.

Step 15: **Monitor the program's success and update the plan every five years**, incorporating the new information and monitoring data collected during the intervening period (feedback loop through Step 6 as well as Steps 1-5), to reassess the long-term management goals and strategy, provide an updated assessment of conditions in the basin, and allow for more sophisticated water quality modeling or additional model calibration and verification.

4. RESPONSIBILITIES WITHIN THE WATER QUALITY SECTION

The North Carolina Department of Environment, Health, and Natural Resources (DEHNR) is an umbrella agency responsible for most issues related to the environment. Issues of environmental quality generally are the concern of the Division of Environmental Management (NCDEM) within the DEHNR, and water quality issues are the responsibility of the Water Quality Section within the NCDEM. The Water Quality Section is composed of four branches and seven regional offices (Figure 4). The branches are further subdivided into units, and the most basic specialized component is the group. Each branch, unit, and group has discrete functional responsibilities within the water quality program. The regional offices are responsible for implementing policies and enforcing permits. In addition, the regional offices interact with all of the branches, as well as individual dischargers and the nonpoint source management authorities, to resolve permit issues and provide information on local conditions and constraints.

The structure of the Water Quality Section and the responsibilities of the individual branches will remain largely unchanged for whole basin planning. There will, however, be increased emphasis on the coordination of activities and the integration of information among the branches and regional offices. This section briefly describes (1) the existing structure and roles of the Water Quality Section branches and regional offices and (2) the proposed responsibilities of each branch and the regional offices for developing and implementing whole basin management plans.

4.1 EXISTING STRUCTURE

The current responsibilities of each branch of the Water Quality Section and the regional offices are identified below. These lists are intended to be general in nature; specific programmatic tasks [e.g., compile the 305(b) report] are not included.

<u>Operations Branch</u>

- Prepare and issue NPDES and nondischarge permits.
- Review design and authorize construction of treatment facilities.
- Monitor NPDES permit compliance and coordinate enforcement activities.

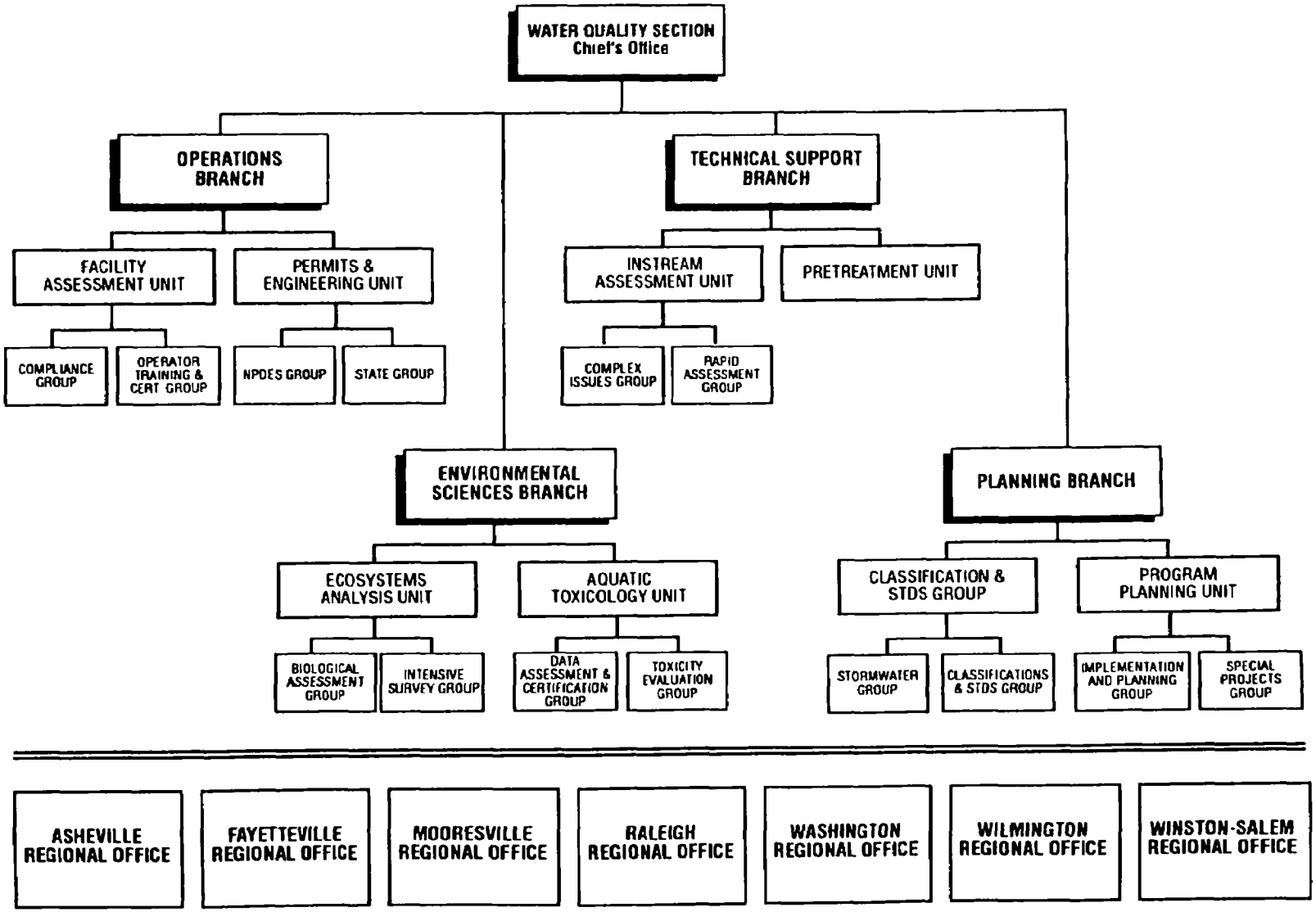


Figure 4. The organizational structure of the NCDEM Water Quality Section.

- Coordinate operator training and certification.
- Handle emergency response activities.

Regional Offices

- Conduct compliance inspections to determine facility efficiency and compliance status.
- Initiate enforcement actions for permit and/or water quality violations.
- Assist permitees with permit application and implementation, and confer with central office throughout the permitting process.
- Monitor construction progress to establish compliance with approved design plans and construction schedules.
- Collect and provide information on local conditions, including identification of unpermitted pollution sources and collection of ambient chemical data.
- Provide technical assistance to applicants and permitees.
- Respond to citizen complaints and conduct water quality investigations.
- Review and comment on 401 Certification Requests.
- Review and approve plans for stormwater controls.

Environmental Sciences Branch

- Develop, revise, and ensure the operation of environmental monitoring networks (chemical biological; water, sediment, and fish tissue).
- Design and implement special site specific studies (e.g., evaluating nonpoint source pollutant impacts, time of travel, sediment oxygen demand, and the effectiveness of best management practices).
- Conduct toxicity evaluations and analyses (whole effluent and chemical-specific).
- Analyze chemical and biological data to assess current conditions, and identify potential problems, in North Carolina's surface waters.
- Operate the biological laboratory certification and quality assurance programs.
- Provide technical assistance to permit applicants, permittees, and various state and federal agencies.

Technical Support Branch

- Develop, apply, and interpret the results from descriptive and predictive water quality models for streams, rivers, lakes, and estuaries, to develop and assess water quality management strategies.

- Determine wasteload allocations and special conditions for NPDES permits.

- Oversee publicly owned treatment works (POTW) pretreatment program development and implementation.

- Provide technical assistance, including modeling, impact assessments, headwaters evaluations, as needed, to municipalities, other agencies (e.g., the Construction Grants Office, Division of Water Resources, Division of Planning and Assessment), and to the other branches and regional staff within the section.

Planning Branch

- Develop water quality classifications and standards, and coordinate rules review proceedings.

- Manage programs for nonpoint sources (Section 319 of the Clean Water Act).

- Conduct general water quality program planning (e.g., regulatory, administrative).

- Conduct special projects, as appropriate, including the development of basin plans and technology reviews.

- Coordinate development of new regulatory programs (e.g., stormwater, wetlands)

- Coordinate Environmental Assessment/Environmental Impact Statement (EA/EIS) reviews and 401 evaluations and approvals/disapprovals.

4.2 RESPONSIBILITIES FOR WHOLE BASIN PLANNING

Although the basic structure and major responsibilities within the Water Quality Section will remain unchanged, implementation of a whole basin approach to water quality management will require some modification of and additions to the tasks outlined above for each branch and the regional offices. The goal of whole basin planning is to increase the scope of management activities from a stream reach to the entire basin. Accomplishing this goal will require more complex water quality modeling, data interpretation, and data base management within the NCDEM Water

Quality Program. For example, more sophisticated methods of quantitatively estimating nonpoint source pollutant loads will need to be developed and applied. In addition, these quantitative estimates of nonpoint source loads will have to be integrated with information on point sources to determine the total loading to the system. Biomonitoring data will play a more prominent role in determining the assimilative capacity of a basin, which may necessitate increased use of biological effects models. Planning for future growth and incorporating "agency banking" into the Water Quality Section's management objectives will require model projections of various potential future scenarios to properly allocate the remaining assimilative capacity and fairly distribute control requirements. Finally, to link the water quality data and model projections for the multiple stream reaches within a basin, and to overlay other relevant types of information, such as land use, will require the involvement of the Center for Geographic Information Analysis (CGIA).

These and other activities associated with whole basin planning will require increased information exchange and the coordination of activities across agency staff (including CGIA). As a result, current plans call for the creation of one or more whole basin planning coordinator positions. The coordinator for a given whole basin management plan will be responsible for (1) arranging meetings among basin team members, (2) communicating data and information needs, as well as scheduling constraints, to the Branch Heads and Regional Offices, (3) tracking the progress of data acquisition and tasks required to complete the whole basin plan, (4) encouraging and assisting with the integration of data and results across branches, and (5) keeping the Chief of the Water Quality Section apprised of progress, major results, and potential problems. The Branch Heads and Regional Offices will be responsible for scheduling and coordinating activities within their individual branches/offices, and for decisions regarding the best technical approach for completing the required tasks to achieve the objectives of whole basin planning.

The lists that follow highlight significant new responsibilities or existing responsibilities that will take on increased importance for each branch of the Water Quality Section; these lists are not intended to be an exhaustive description of the activities planned or proposed.

Operations Branch and Regional Offices

The increased scope of planning activities under whole basin management will likely lead to

increased public interest and participation in the planning process. The Operations Branch and Regional Offices will be responsible for facilitating communication between the public and the other branches of the Water Quality Section. Other important tasks and responsibilities include the following:

- Inventory the efficiency of treatment works to assess compliance with NPDES limits, in order to quantify actual wasteloads for all point sources, which in turn will be used (by the Technical Support Branch) to estimate the remaining assimilative capacity.
- Through the regional offices, notify dischargers of the ongoing planning process and any changes in permit schedules, and request any additional data required for basin planning.
- Oversee the permit application and approval process (e.g., Effluent Guidance Limits, Authorizations to Construct, public hearings).
- Incorporate any new or alternative control strategies required by the whole basin management plan into permits.
- Conduct Treatment Technology Assessments.

Environmental Sciences Branch

The environmental assessment activities conducted by the Environmental Sciences Branch are being restructured to meet the demands of whole basin management. Certain efforts and resources will be focused, one (or a few) basin(s) at a time, while many aspects of the program will require continued efforts on a statewide basis. The specific tasks and responsibilities of the Environmental Sciences Branch include the following:

- Design and implement biological monitoring surveys that will provide a comprehensive biological assessment of water quality in the basin.
- Design and implement special biological studies to provide information on areas of special concern, such as problem areas or areas of exceptional water quality, or to fill in data gaps.
- Monitor and assess phytoplankton communities and chlorophyll values in relation to nutrient concentrations in the basin, to assess water quality and the need for special designations, such as Nutrient Sensitive Waters.
- Synthesize all biological data into a basin report that will provide a complete evaluation of biological communities and, whenever possible, aid in identifying major water quality problems and provide guidance on management strategies.

- Perform special physical/chemical studies as needed to fill in data gaps, including basinwide hydraulic work (i.e., time to travel studies for each basin's mainstem water body as well as major tributaries), special studies for impaired lakes (e.g., Lake Wylie and High Rock Lake), analyses of sediment oxygen demand (SOD), and long-term biological oxygen demand (BOD) analyses of samples taken from selected ambient sites throughout each basin.

- Continue to develop monitoring programs, data interpretation techniques, and reporting approaches to better address the demands of the whole basin planning approach.

Technical Support Branch

The Technical Support Branch will be responsible for predicting the response of instream water quality to basinwide management strategies, through modeling, where appropriate. In turn, this information will be used to determine wasteload allocations for NPDES permits that are consistent with the overall Total Maximum Daily Load strategy. This will require integrating the data obtained from other branches and the regions into modeling frameworks that help define assimilative capacity, and also developing distribution plans that promote consistency and equitability, and avoid overallocation. Many of the existing methods and models will have to be modified, and new methods developed to accommodate the expanded scope of the branch's responsibilities. Specific tasks include the following:

- Develop a data aggregation and integration plan to incorporate appropriate sources of information into assessment and modeling frameworks, including establishing a linkage with the CGIA to incorporate appropriate Geographic Information System (GIS) information into modeling analyses (e.g., land use, point source locations, sampling station locations, U.S. Geological Survey gauging stations).

- Identify pollutants of concern that will be included in wasteload allocation analyses.

- Develop modeling frameworks, where required, to predict water quality or assist in allocation determinations for identified pollutants in specific management units (including whole basin models and analyses as appropriate).

- Merge nonpoint loading information with point source data to determine the current total pollutant loading.

- Evaluate assimilative capacity and determine the existing overallocation (if any) for each basin.

- Evaluate interactions among dischargers for the identified pollutants of concern.
- Model various management scenarios, including those utilizing capacity banking scenarios for future use.
- Establish wasteload allocations consistent with the overall Total Maximum Daily Load strategies for the basin and subbasins.

Planning Branch

Currently the Planning Branch is involved in many different issues that relate to whole basin planning (e.g., stream classifications and associated management strategies, standards, nonpoint sources, wetlands, EA/EIS review, stormwater control coordination, watershed management plan development). Because this branch is involved in many of these issues at the program development level, it also will assume the lead role in coordinating the development and implementation of each whole basin management plan. Each branch, however, will be involved in developing the management strategies and evaluating their impact. Specific responsibilities of the Planning Branch include the following:

- Coordinate the development, approval, and implementation of the whole basin plans.
- Update nonpoint source loading coefficients for various land use activities and further explore techniques for analyzing basinwide loads for pollutants of interest.
- Assist in the determination of appropriate nonpoint source Load Allocations.
- Develop control strategies for nonpoint source problem areas in each basin.
- Manage the stormwater program.
- Direct the wetland implementation program to meet priority concerns within subbasins.
- Work with the CGIA to develop effective ways to present planning information for technical and public review.
- Coordinate regulatory and congressional initiatives to incorporate changes, where necessary, to achieve water quality management objectives.

5. IMPLEMENTATION SCHEDULE

Because of time and resource constraints, the implementation of whole basin planning and management is likely to occur in phases. For the purposes of discussion, Figure 5 outlines a four-phase conceptual model of program implementation, with near-term (less complex) objectives and long-term objectives requiring additional methods development and policy initiatives. Initially, efforts will focus on the rescheduling and reorganization of permitting and associated routine support activities (field sampling, modeling, wasteload allocation calculations, etc.) by basin, to allow for more efficient use of staff resources (Phase I). As time and resources allow, new assessment and management tools (e.g., basinwide water quality modeling) will be developed and applied, with advances occurring in some areas (such as for point source discharges of conventional pollutants) at a faster rate than for others (e.g., management approaches for reducing nonpoint source contributions) (Phase II). Eventually, sufficient data and information will be available to both assess the optimal distribution of assimilative capacity (including trade-offs between point and nonpoint sources) (Phase III) and support the development of comprehensive, long-term basinwide management strategies (Phase IV).

The earliest basin plans prepared in the early-1990s are unlikely, therefore, to achieve all of the long-term objectives for whole basin management defined in Section 1.1. Subsequent updates of these plans, scheduled for every 5 years, will include additional data, analyses, and detailed management strategies as they become available. The time required to develop fully integrated, comprehensive basin management plans, including long-range strategies, will vary among basins, depending on (1) the existing amount of background information and analyses for the basin, (2) the complexity of the basin processes and water quality problems, and (3) the relative importance of point and nonpoint sources in the basin. Analyses of nonpoint sources are hindered by the scarcity of information on specific sources, rates, and types of pollutants; in addition, the tools for characterizing nonpoint source problems and assessing alternative solutions are not as fully developed as for point sources. The development of management policies for nonpoint source control also requires the involvement of many more agencies than for point sources. Therefore, greater effort and longer times may be required to implement comprehensive basinwide management plans for basins that (1) have less existing information, (2) are more complex, and (3) where nonpoint pollutant sources are relatively more important.

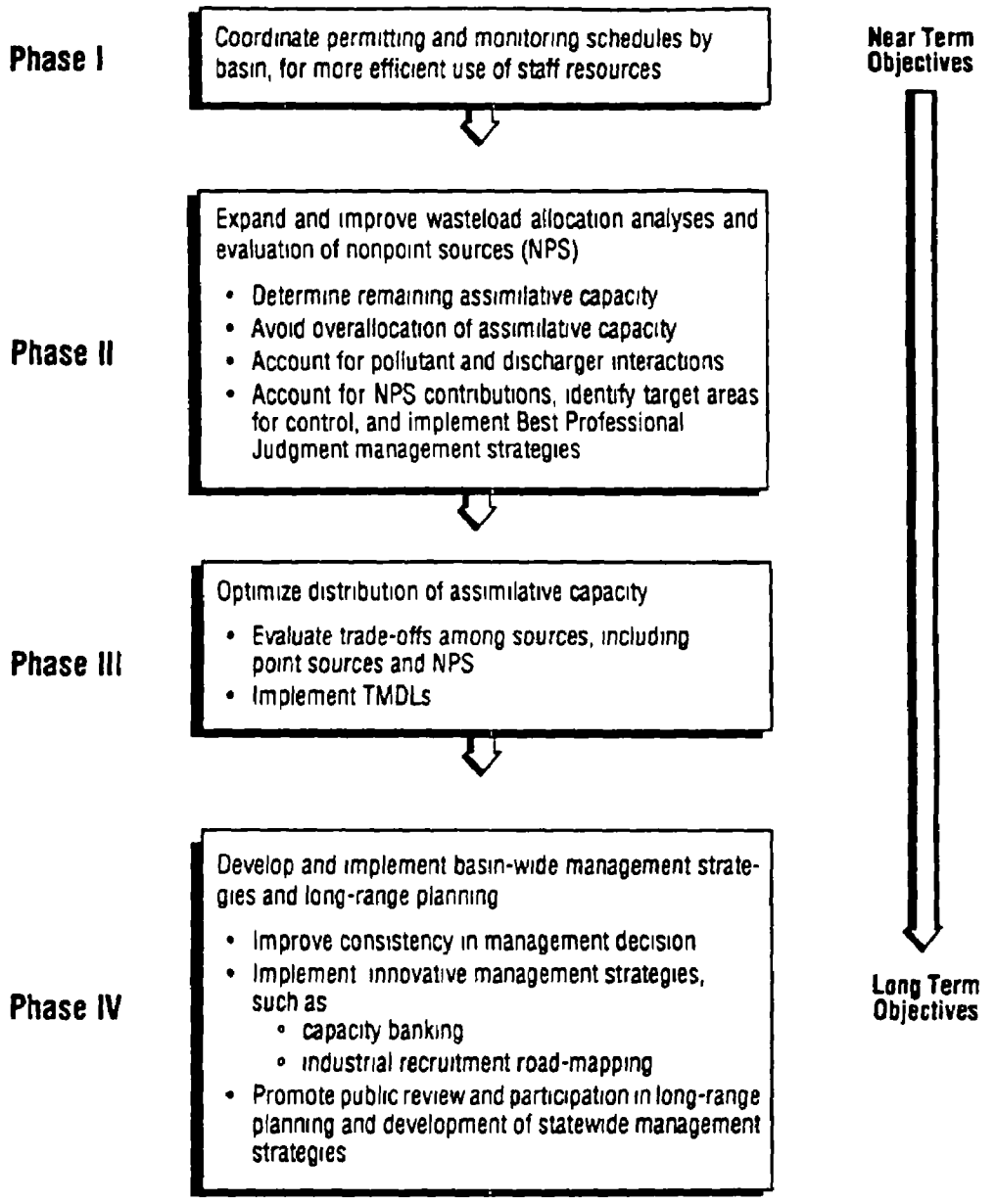


Figure 5. Four phase conceptual model of implementation of the whole basin approach to water quality management, indicating near-term and long-term program objectives.

Permitting activities within North Carolina have already been rescheduled by basin; all NPDES permit renewals within a given basin will now occur simultaneously, and be repeated at five year intervals (Table 4). Permit renewals in the Neuse River basin, for example, have been scheduled for April 1993. Thus, the whole basin management plan for the Neuse River basin must be available (and approved) at a sufficient time preceding this date to serve as the basis for the permit renewal process and decisions. The NPDES permit renewal schedule, therefore, drives the schedule for developing and reviewing the whole basin management plans.

As an example of the length of time required to complete a whole basin management plan, a tentative schedule was developed at the NCDEM Water Quality Section workshop for the first Tar-Pamlico basin plan, with NPDES permit renewals in the basin scheduled for January 1995. Working backwards from that date, the estimated time needed to complete each of the 14 steps defined in Section 3 (Figure 3) is summarized in Table 5 and presented graphically in Figure 6.

Some steps and tasks may overlap. For example, it is assumed that the permitting process (Step 14) can be initiated before the plan has fully completed the review, revision, and approval process (Steps 12 and 13). Likewise some aspects of data analysis and interpretation (Step 8) can begin before all data collection activities are completed in the field (Step 7) (see Figure 6).

Schedules similar to the one presented in Table 5 for the Tar-Pamlico basin will be prepared for the 16 other major river basins in North Carolina. These will be circulated as supplements to this document at a later date. The time required for each step will vary somewhat among basins. For example, basins for which relatively little data exist may require special studies (e.g., time of travel hydraulic studies), which can be delayed if the proper conditions do not exist because of weather patterns, thus requiring a longer period of time for Step 7. Complex basins for which sophisticated and/or extensive water quality modeling must be conducted (e.g., the Catawba and Cape Fear basins) will require more time at Step 8, compared to other basins where the modeling activities may be more straightforward or where extensive modeling analyses already exist. For some basins, the information required to estimate nonpoint source loadings is not readily available, and may require additional time and effort to compile (e.g., at Stages 3 and 7). Other basins, on the other hand, already have extensive data and analyses available on nonpoint sources (e.g., nutrient budgets for the Albemarle-Pamlico basin). Finally, the overall schedule for

Table 4. NPDES Permitting Schedule for the 17 Major River Basins in North Carolina.

Permit Renewal Date	Basin
April 1993	Neuse
November 1994	Lumber
January 1995	Tar Pamlico
April 1995	Catawba
August 1995	French Broad
November 1995	New
January 1996	Cape Fear
January 1997	Roanoke
June 1997	White Oak
August 1997	Savannah
September 1997	Watauga
October 1997	Little Tennessee
December 1997	Hiwassee
January 1998	Chowan-Pasquotank
April 1998	Neuse
July 1998	Yadkin
November 1998	Broad
November 1999	Lumber

Table 5. Estimated Time Frame and Schedule for Preparing the First Whole Basin Management Plan for the Tar-Pamlico Basin.

Step	Task	Duration (mo)	Start Date	Completion Date
14	Issue permits	7	6/94	1/95
12,13	Plan review and approval	12	1/94	1/95
11	Complete draft plan	3	10/93	1/94
10	Select management option	1	9/93	10/93
9	Evaluate management options	2-3	6/93	9/93
8B	Modeling analyses	12	6/92	6/93
8A	Current status assessment	6-7	6/92	1/93
7E	Obtain data from outside section	16	2/91	6/92
7D	Collect sediment chemistry data	24	6/90	6/92
7C	Collect biology data	4*	6/92	10/92
7B	Collect water chemistry data	16**	6/91	10/92
7A	Collect physical data	28***	6/90	10/92
6	Determine data needs	35****	6/88	5/91
5	Define management units	4****	1/91	5/91
4	Prioritize problems and issues	4****	1/91	5/91
3	Identify problems and issues	4****	1/91	5/91
2	Establish goals and objectives	4****	1/91	5/91
1	Compile existing information	4****	1/91	5/91

* Data can only be collected during summer period; one summer scheduled for collection of biological data for Tar-Pamlico basin.

** Data can only be collected during summer; two summers scheduled for water chemistry data.

*** Data can only be collected during summer; as much time as possible must be allotted for collecting physical data because sampling during low flow periods is critical and, because of climatological variations, low flow periods may or may not occur during any given summer period.

**** The schedule for these steps may not be representative of the time required for other basins, because of the compressed schedule required to complete the first Tar-Pamlico basin plan by January 1995. Assessments of existing data and data needs for the basin were conducted in the summer of 1988, to establish schedules for future chemistry and biology field sampling, but this planning was not done specifically within the context of whole basin planning.

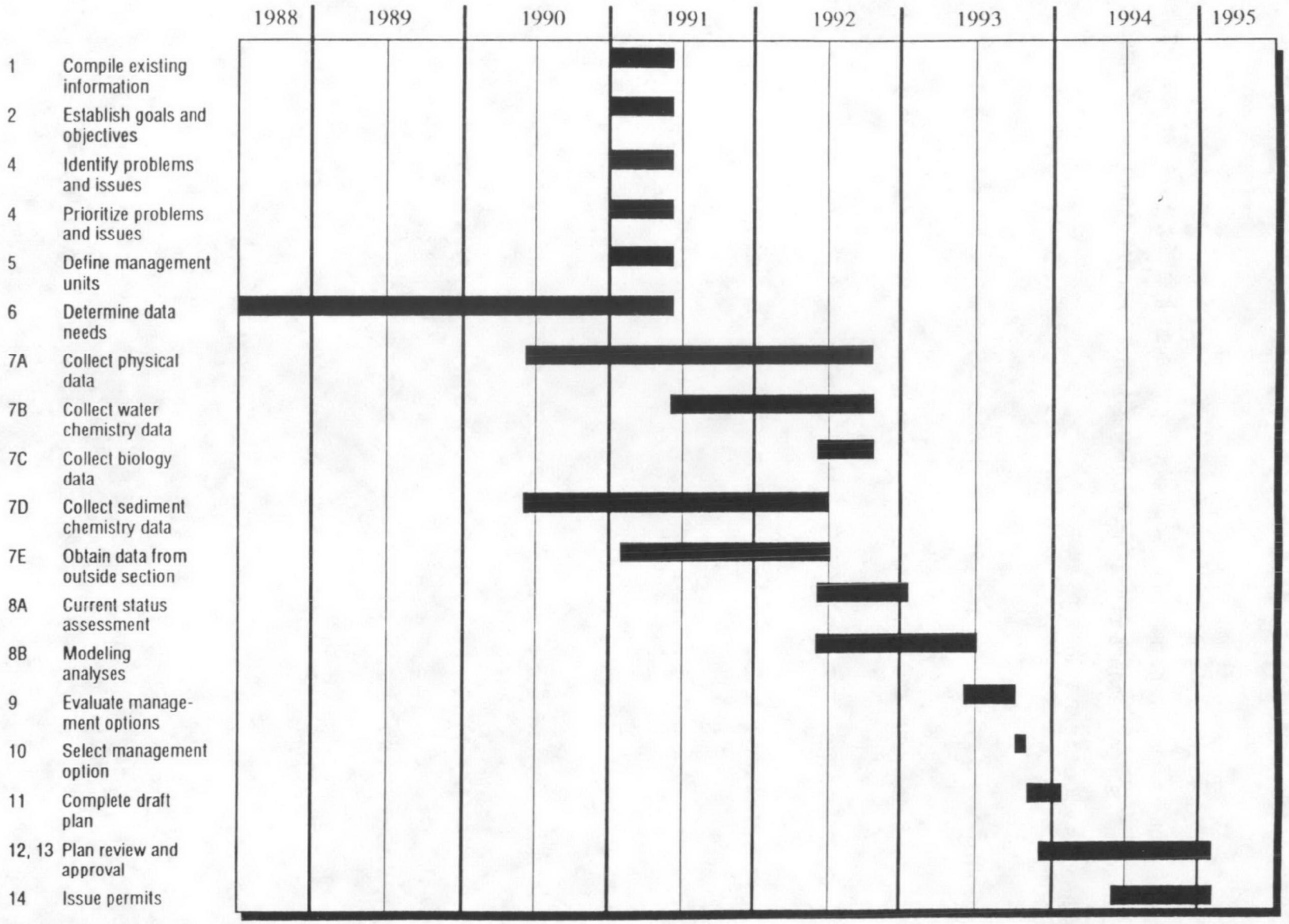


Figure 6. Timeline for developing the first Tar-Pamlico whole basin management plan.

some of the earlier basin plans (scheduled for completion in 1993, 1994, or 1995) must be compressed simply because of the insufficient lead time. Further refinement of these basin schedules will occur over the next year.

6. DATA MANAGEMENT

The data management needs for whole basin management are acute and central to the success of the program. Staff members from all branches of the Water Quality Section spend a great deal of time moving, sorting, and analyzing data from a variety of sources and in a number of different formats. This diversity of data types and formats presents the Water Quality Section staff with several time consuming problems that could be solved by using a more sophisticated data management system. Thus, as part of the implementation of whole basin planning, the Water Quality Section has proposed (1) the development of standardized formats for data storage as well as for tables and figures to be used in the whole basin management plan, (2) the initiation of centralized data base management, and (3) more direct interactions and a closer working relationship with the Center for Geographic Information Analysis (CGIA) to take advantage of their Geographic Information System (GIS) capabilities.

A centralized data management system is needed that can retrieve and transmit data to several remote data bases including, but not limited to the following:

- EPA stream reach files and the NCDEM classification system,
- the NPDES Permit and Wasteload Allocation Information data base,
- discharger compliance information,
- nondischarger files,
- the whole effluent toxicity (WET) data base,
- NCDEM biomonitoring and tissue data bases,
- computerized data bases on land use, etc. from other agencies,
- the CGIA data base,
- USEPA Storet files,
- the U.S. Geological Survey stream monitoring data base, and
- university research files.

Thus, the Water Quality Section data management system must be flexible, and designed to handle a wide variety of input and output formats. In particular, the ability to display, overlay, and analyze monitoring data on spatial scales using the GIS at CGIA is a critical aspect and a primary

benefit of whole basin planning. The system must also be able to interact with desktop computers and workstations, because a significant portion of the data analyses in the Water Quality Section are currently conducted and will continue to be conducted on these machines.

The proposed data management system also will be used to implement computerized tracking for coordinating and recording decisions made during the whole basin planning process. By tracking the results and decisions made at each phase, both the process of plan development as well as plan updates in subsequent years will be more efficient.

The acquisition of a more powerful data management system and improved, standardized procedures for data handling and analysis will increase staff efficiency, allowing the staff more time to concentrate on developing new data analysis techniques and on the data interpretation required to achieve the long-term objectives of whole basin planning. At present, however, the existing support within the Water Quality Section is inadequate to implement the proposed expansion and improvements in data management outlined above. Additional funds and support are needed to (1) purchase new equipment, in particular a mini-mainframe computer (estimated cost approximately $250,000), (2) develop a data management system tailored to the needs of the Water Quality Section (estimated costs $60,000 for task flow analysis and $80,000 for software development), and (3) train Water Quality Section staff. This additional support required to implement centralized data management represents a critical outside resource need (see Section 7).

7. REMAINING ISSUES AND OUTSIDE RESOURCE/RESEARCH NEEDS

Whole basin planning is expected to be both more efficient and more effective, resulting in better management of North Carolina's water quality for a given level of funding and resource allocation (Section 1.2). However, in the short term, additional outside resources and research are needed to facilitate the transition to whole basin management. In addition, several remaining administrative and technical issues must be resolved regarding program management and implementation. These remaining issues and outside resource/research needs are summarized below.

7.1 REMAINING ADMINISTRATIVE AND REGULATORY ISSUES

- **Coordination**: The Division must create a new staff position(s) to be responsible for coordinating the development of whole basin management plans (see Section 4.2).

- **Innovative Management Approaches**: As part of whole basin management, several new and innovative management strategies and approaches have been proposed, including assimilative capacity "agency banking" by the Water Quality Section, pollution trading, and industrial recruitment mapping. As noted in Section 3, a written description and rationale for these approaches is needed, early on in the process, to encourage review and comment and to initiate any changes or additions needed to the existing rules and regulations.

- **Standardized Format for Basin Plans**: To facilitate the development of whole basin management plans and also inter-basin comparisons, a standardized format must be developed specifying data, table, and figure formats to be used in each plan. A detailed procedures manual is needed outlining the steps, tasks, and analyses involved in developing a whole basin management plan (see Section 3).

- **Centralized Data Management**: As noted in Section 6, additional outside funding is needed to implement centralized data management within the Water Quality Section (estimated total funding request $390,000).

- **Additional Staff**: To fully achieve the objectives of whole basin management, additional staff or staff reassignment may be required within the Water Quality Section.

- **Criteria for Prioritizing Problems and Critical Issues**: The Water Quality Section staff must develop objective and consistent criteria for identifying priority problems and critical water quality issues to be addressed in the management plans for each basin. These criteria must recognize the limitations on what the state can and cannot regulate as well as fiscal constraints.

- **Criteria for Distributing Assimilative Capacity**: Objective criteria must be developed to guide the equitable distribution of assimilative capacity and control requirements, in order for the Water Quality Section to fairly achieve the long-range goals and planning objectives of whole basin management.

- **Specific Administrative/Regulatory Needs**: Two specific needs were identified: (1) a definition for High Quality Water (HQW) lakes and (2) approval to limit the maximum concentration of toxic substances to the no-acute level (i.e., the Criteria Maximum Concentration or 1/2 the Final Acute Value) in the effluent.

7.2 TECHNICAL RESOURCE AND RESEARCH NEEDS

- **Total Maximum Daily Loads (TMDLs)**: The TMDL concept needs to be defined more completely and precisely. The definition should include atmospheric inputs of pollutants, pollutant interactions, the linkage between nonpoint source pollutants and point source pollutants, and specific endpoints for assessing the impact of each TMDL, for each pollutant. The definition needs to be relevant to aquatic systems and regulatory programs.

- **Terrestrial/Aquatic Interactions**: Whole basin planning will require additional information on the relationship between land use/landscape ecology and water quality. In particular, support is needed for the Center for Geographic Information Analysis / Geographic Information System for staff training and to digitize hydrological, physiographic, and land use data for North Carolina river basins.

- **Expanded Water Quality Models**: More sophisticated water quality models are needed to address discharger and pollutant interactions (from both point and nonpoint sources) and that operate on larger spatial scales (basinwide modeling and analyses, rather than individual stream reaches). A pilot project is currently underway with the Center for Geographic Information Analysis to develop a simple mass balance model for basinwide assessments of toxic discharges and could prove to be a building block for additional modeling efforts.

- **Improved Models for Estuaries**: Several North Carolina basins include estuaries. The estuary models currently being used by the Water Quality Section for the Neuse Albemarle-Pamlico estuaries are inadequate for addressing many of the basin planning issues critical to North Carolina's estuaries. Thus, the Water Quality Section needs additional funding for further development of suitable estuarine model(s). NCDEM has requested assistance from the Environmental Research Laboratory in Athens for additional training and technical assistance in this regard. While USEPA appears supportive of the idea, details of the actual assistance to be received remain to be worked out.

- **Improved Estimates of Pollutant Loads from Stormwater Runoff**: Additional research is needed to more accurately estimate pollutant loads resulting from stormwater runoff. The effectiveness of stormwater treatment also needs to be evaluated.

- **Improved Estimates of Nonpoint Source Loading**: Quantitative estimates of nonpoint source loading, by source area, are needed and must be integrated with estimates for point sources to determine the total pollutant loading to a system and, thus, the remaining assimilative capacity. The existing methods for estimating and evaluating nonpoint source loadings are not as advanced nor as well tested as are those for point sources. In addition, methods for prioritizing implementation of nonpoint source control methods are needed. Use of aerial photography to meet this need, as employed by the Tennessee Valley Authority, should be more closely examined.

- **Biostatistics**: Additional input is needed from biostatisticians to aid in designing monitoring programs, defining biocriteria, developing data analysis protocols, and defining ecoregions.

- **Specific technical needs/issues**: Other specific technical and research needs identified include the following:

  - Research and information on the ability of North Carolina treatment plants to achieve lower discharge limits (i.e., technology capabilities), and the added costs associated with these limits.

  - Protocol for dealing with pollutant concentrations (especially toxics) at or below the analytical detection limit.

  - Research to determine the effectiveness of management options for curbing septic tank/bacteria problems in estuary/shellfish production areas.

  - Assistance with establishing field procedures for reaeration studies.

  - A national protocol for measuring long-term biological oxygen demand (BOD).

  - Evaluation of parameter analysis techniques (low level) and also additional work on analytical methods for measuring chlorine at low concentrations.

  - Further development and refinement of procedures for assessing ambient and sediment toxicity.

8. REFERENCES

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OCLA ANALYSIS

DRAFT--June 11, 1991 DRAFT

CLEAN WATER ACT REAUTHORIZATION ISSUES

Issue	Current CWA	S. 1081 (Baucus)	H.R. 2029 (Studds)	H.R. 735 (Hefley)	H.R. 12 (Hughes)	S. 733 (Graham)
Nonpoint Source Pollution	§319 States identify waters that are not expected to meet water quality standards because of nonpoint source pollution; submit a management plan to EPA, receive grants for approved plans	Builds on existing program--directs EPA to publish nat'l guidelines specifying minimum elements of State NPS program, including identification of economically achievable management measures to control pollution inputs from categories of NPS. States to update NPS plans to be consistent w/ EPA guidelines or deferral funds withheld. Highway funds--requires DOT to withhold highway funds from States w/o approved NPS program USDA Coordination--strengths coordination w/ USDA programs Federal Lands--requires EPA to propose w/i 2 years (w/ final regs 1 yr. later) regs concerning control of NPS on all federal lands; EPA report to Congress w/i 3 years Commercial fertilizer--W/i 3 yrs, no person may manufacture or sell any commercial fertilizer product w/o taking adequate precautions for protection of water quality as determined by EPA; EPA to issue regs to assure that commercial fertilizers used w/i critical watershed areas are guided by site-specific soil tests and other reqts Rural Clean Water Program, provided for in §208(j) is revised and reauthorized	Provides for extension of authorization of §319, without amendment, through FY 1999 Requires EPA to identify pollution control measures, in addition to the management measures required under the recent CZMA amendments, suitable for reducing or controlling introduction of pollutants into coastal waters from nonpoint sources; to develop techniques for evaluating effectiveness of the measures, and to develop and make available to States and localities technical guidance Provides for extension of authorization through FY 1999 without amendments, for CWA §208(j)(9).			
Combined Sewer Overflows	CSOs are flows from combined sewers, in excess of the sewer's capacity, that discharge into receiving waters w/o receiving proper treatment. CSOs are point sources subject to all NPDES permit requirements including technology-based and water quality-based requirements of the CWA CSOs are not subject to secondary treatment reqts applicable to POTWs	Requires States to conduct inventory of CSOs w/i 1 year Municipalities w/ CSOs to develop and implement CSO elimination programs no more than 7 years after program approval by EPA Control programs must eliminate overflows resulting from a one-year, six-hour storm event Title VI amended to make CSO elimination programs eligible for funding under a State's water quality revolving loan fund.				
Storm Water	§402(p) sets forth schedule by which five categories of municipal or industrial dischargers are required to obtain permits					

Issue	Current CWA	S. 1081 (Baucus)	H.R. 2029 (Studds)	H.R. 735 (Hefley)	H.R. 12 (Hughes)	S 733 (Graham)
Effluent Guidelines	CWA §§301 and 304(b)--best practicable control technology (BPT) for then "existing" industrial dischargers, best conventional technology (BCT) for existing dischargers of conventional pollutants; best available technology economically achievable (BAT) for existing dischargers of toxic pollutants; guidelines supposed to be reviewed at least annually	Schedule--EPA to revise guidelines no less often than every 7 years BAT--new and revised guidelines must provide for pollutant reductions to attain BAT (eliminates BCT and BPT) Guidelines must require elimination of discharge, and, the prohibition or limitation of release into other media (including ground water) where technologically and economically achievable, and, prohibit control measures or practices which are likely to have significant adverse impact on any environmental media; OMB prohibited from reviewing EPA's information requests to industry in developing or revising guidelines NSPS to be published simultaneously with BAT Fees--industrial sources, both direct and indirect, are to pay fees to support EPA's administrative costs in developing guidelines, based on volume and toxicity; waiver for unreasonable financial hardship; money deposited in a special fund in U.S. Treasury Advisory Committee (CWA §515)--establishes an Effluent Standards and Water Quality Information Advisory Committee to advise EPA in developing guidelines				

Issue	Current CWA	S. 1081 (Baucus)	H.R. 2029 (Studds)	H.R 735 (Mefley)	H.R. 12 (Hughes)	S. 733 (Graham)
Water Quality Criteria and Guidelines	§304	Fish Consumption Advisories--requires EPA to develop w/i 2 years and biennially thereafter, guidelines for States to follow in issuing contaminated finfish and shellfish consumption advisories to protect recreational and subsistence fishermen List of Pollutants--requires EPA w/i one year and biennially thereafter to publish a list of conventional, nonconventional, and toxic pollutants; includes hydromodification and thermal pollution as conventional pollutants Criteria--must assure protection of human health and ecosystems, including sediments, and must provide for a balanced, indigenous population Criteria Schedule--requires EPA, w/i one year and triennially thereafter to submit to Congress a plan for development of criteria and information; the first plan must include 20 new criteria, revision of 20 existing criteria, and 20 sediment criteria; at least 60 criteria documents must be published w/i 4 years of enactment	Schedule--EPA req'd to issue or revise at least 5 new criteria, and revise at least 5 existing criteria, for pollutants which pose greatest risk to coastal water quality (includes Great Lakes) every two years Criteria--requires EPA to develop and publish criteria for sediment quality and information on factors necessary to restore Great Lakes and coastal aquatic ecosystems. The criteria would provide a basis for. evaluating severity of sediment contamination, providing technical foundation for development of sediment standards, developing national sediment remediation standards; and identifying and ranking locations of contaminated sediments for remediation projects. Guidance on Sediment Quality Based Effluent Limits--requires EPA, when publishing such sediment criteria, to issue guidance on development and imposition by appropriate permitting authority of sediment-based effluent limits for the pollutant under §302. Existing Criteria and Information--for pollutants for which criteria and information are published under §304(a), requires EPA to revise and republish such criteria and information to support development of sediment criteria. For pollutants for which criteria and information have not been published under §304(a), sets forth procedure by which any person may petition EPA to develop such criteria for sediments		Requires EPA, w/i 18 months, to issue water quality criteria for pathogens in "coastal recreation waters" (Great Lakes and marine coastal waters commonly used for swimming, etc.)	

Issue	Current CWA	S. 1081 (Baucus)	H.R. 2029 (Studds)	H.R. 735 (Hefley)	H.R. 12 (Hughes)	S. 733 (Graham)
Biological Criteria	Specifically allows development of water quality criteria for toxic pollutants on bases other than pollutant-by-pollutant criteria, including biological monitoring and assessment methods	Authorizes EPA to establish biological monitoring and assessment methods for a pollutant, in addition to a pollutant concentration limit provided that such method includes an objective and enforceable limit expressed in numerical terms Requires EPA, w/i 2 years, to publish a criteria document for whole effluent toxicity. Criteria document shall be in addition to any pollutant-specific criteria Requires EPA, w/i 18 months and biennially thereafter, to promulgate "biological discharge criteria" for determining degradation of waters covered under §403	EPA req'd w/i 2 yrs to publish biological criteria for coastal waters	To the extent that EPA determines that in control of toxicity it is necessary to include biological monitoring, etc as a condition of a permit issued to a POTW, failure of a single whole effluent toxicity test shall not result in a finding of violation		

Issue	Current CWA	S. 1081 (Baucus)	H.R. 2029 (Studds)	H.R. 735 (Hefley)	H.R. 12 (Hughes)	S. 733 (Graham)
Water Quality Standards	§303	Designated Uses--Requires States, w/i 3 years, to adopt use designations for all rivers, streams, lakes, estuarine regions, and waters of the contiguous zone applicable to the waters and the aquatic sediments; in general, all waterbodies not currently designated "fishable, swimmable" shall be so designated not later than the next triennial review of standards State Standards--requires each State to adopt water and sediment quality standards w/i 3 years of the publication of EPA criteria, and to review existing standards at least every 3 years; States to notify border and upstream States upon adoption of a standard Federal Oversight--requires EPA to oversee designation of uses and adoption of standards and provides EPA with authority to disapprove State standards; requires EPA to promulgate standards for water bodies in State where State fails to do so w/i 3 years Waters of contiguous zone--requires EPA to designate waters of contiguous zone as fishable, swimmable and, w/i 2 years, to publish proposed WQS for such waters (w/ final standards 1 yr. later) Continuing Planning process--amends CWA §303(e) adds elements (NPS, NEP, river protection) to be included in State's continuing planning process for water pollution control Mixing Zones--amends CWA §303(d) to put some limits on use of mixing zones TMDLs--amends CWA §303(d) ı ising procedures for developing total maximum daily loads for pollutants in water bodies that have not attained water and sediment quality standards (§305(b)(2)(B) impaired water bodies)	Coastal Water Quality Standards--Coastal States req'd to adopt coastal water quality standards w/i 2 yrs for pollutants for which criteria have been published Upon a failure of State to adopt such standards, EPA-issued criteria become interim enforceable WQS National Sediment Remediation Standards-requires EPA to issue, w/i 2 years, national sediment remediation standards to govern remediation projects in the Great Lakes and coastal water involving contaminated sediments Standards for Contaminants in Water Column--requires EPA to issue, w/i 2 years, standards that will establish temporary maximum permissible concentrations of pollutants or contaminants in the water column during a remedial projects for sediment contamination	Amends §303(c)(2)(B) to make it clear that, with respect to POTWs, nothing shall be construed to authorize use of effluent limitations which result in the finding of a violation solely upon failure of a whole effluent toxicity test where EPA or the State utilizes permit conditions or limitations based on or involving biological monitoring	States, w/i 3 yrs of publication of EPA criteria, required to adopt water quality standards for pathogens in coastal recreation waters EPA Action on Failure of State to Adopt--requires EPA to promulgate WQS for coastal recreation waters upon a failure of a State to do so w/i the 3 years	Amends CWA §303(c)--EPA water quality criteria under CWA §304(a) to be used as the applicable standard for that pollutant if State has not adopted relevant standard or has adopted a standard less stringent than criteria Amends MPRSA §106(d)--EPA's ocean dumping requirements to be used if State standard is less stringent
Anti-degradation	Current regulations require each State to enforce a state wide antidegradation policy aimed at maintaining and protecting instream uses and existing "high quality waters"	Adds a new subsection to CWA §303 requiring each State to develop and implement a statewide antidegradation policy, EPA to approve or disapprove such policy and to promulgate policy, w/i 2 years for States which do not have an approved policy				

Issue	Current CWA	S. 1081 (Baucus)	H.R. 2029 (Studds)	H.R. 735 (Hefley)	H.R. 12 (Hughes)	S. 733 (Graham)
Targeting Schemes	A number of sections of the existing statute target specific waters--§§117 [Chesapeake Bay], 118 [Great Lakes], 303(d) [priority ranking], 304(l) [individual Control strategies for toxic pollutants], and 314 [Clean Lakes]	Priority Waters--amends §304(l) to require that for any water body for which individual control strategy developed, NPDES permit authority must: include conditions to assure sufficient information is available to exercise §403 authorities; issue storm water permits; prohibit specification of area as a §404(c) disposal site, exercise §312 authority, give priority for NEP and NEP-rivers management conferences; if no §319 program, EPA must prepare NPS program. Outstanding Natural Resource Waters--adds a new subsection to CWA §303 requiring each State, w/i 24 months, to designate and implement a program to protect outstanding natural resource waters including waters of national parks and wildlife refuges and related areas of ecological importance to assure that quality of such waters is protected; EPA, w/i 12 months, to publish guidance to assist States in the designation TMDLs--required in any in water body that have not attained water and sediment quality standards (§305(b)(2)(B) impaired water bodies)	Adds a new subsection to CWA §304 [Information and Guidelines] requiring each coastal State, within 24 months of enactment, to develop a Coastal Water Quality Protection Program for restoring and protecting coastal water quality The program, if approved by EPA, would apply to coastal waters of the State in lieu of the planning and implementation requirements otherwise applicable to coastal waters under §303(d). Requires that the programs take into account and incorporate the requirements of CWA §304(l) [individual control strategies for toxic pollutants], 319 [NPS program], and 320 [NEP], and the new NPS provisions of the CZMA amendments			
Water Quality Monitoring		State programs--requires States to conduct a comprehensive program to monitor the quality of all navigable waters within the State and to submit to EPA by April 1, 1994 and biennially thereafter a report Water Quality Monitoring Council--establishes a Water Quality Monitoring Council, chaired by EPA rep, to assure the effective coordination of federal and State monitoring programs EPA responsibilities--requires EPA to issue guidance not less often than annually to States to assure effective and coordinated implementation of water quality monitoring programs; submit to Congress , w/i 2 years, a strategy for coordinate implementation of water quality monitoring programs, submit to Congress Jan. 1, 1995 and biennially thereafter a report on the findings of monitoring Authorizes--$3 million for each of FYs '93-'98 for the council and EPA activities Ambient Monitoring--amends §308 to require dischargers to conduct ambient monitoring	Purpose--Establishes a long-term water quality assessment and monitoring program for high-priority coastal waters Coastal Water Quality Monitoring Task Force--establishes the Coastal Water Quality Monitoring Task force consisting of representatives of NOAA (who is to be the Chair), EPA, USFWS, Corps, and others National Coastal Water Quality Monitoring Strategy--requires the task force to develop and implement a national strategy for conducting coastal water quality monitoring programs and to report to Congress within 2 years of enactment and triennially thereafter. Requires task force, among other things, to select high priority coastal waters and review, approve, implement coastal water quality monitoring programs		Requires EPA, w/i 9 months, to publish regs specifying methods to be used by States to monitor coastal recreation waters for compliance with applicable WQS	

Issue	Current CWA	S. 1081 (Baucus)	H.R. 2029 (Studds)	H.R. 735 (Hefley)	H.R. 12 (Hughes)	S. 733 (Graham)
Toxic Pollution Control	§304(l) [Individual Control strategies for toxic pollutants] scheme and §307(a) listing	Amends §307(a) to expand existing EPA authority to prohibit discharge of pollutants that are highly toxic or bioaccumulative, clarifies process for listing toxic pollutants; requires EPA to issue regs prohibiting discharge of 6 named toxics, and, w/i 4 years, to issue regs prohibiting discharge of pollutants with BCF greater than those named toxics; requires list to be revised every 5 years; requires EPA, w/i 3 years, to establish the bioaccumulation factor of each listed pollutant; adds ammonia and chlorine to list				
Pretreatment	Industrial facilities that discharge into POTWs must comply with pretreatment standards found in §307(b). Standards designed to prevent interference with POTW operation and discharge of pollutants from POTWs w/o adequate treatment	Amends §307(b) to strengthen pretreatment requirements ~~Remove~~ Credits--prohibits removal credits Categorical standards--requires EPA w/i 3 years to promulgate pretreatment standards for each category of sources for which an effluent guideline but no pretreatment standard has been promulgated; must reflect BAT, prevent pass-through and interference, and protect beneficial reuse of sewage sludge; EPA to review standards at least every 7 years Local limits--requires POTWs ~~with pretreatment programs~~ to establish local limits on discharges by industrial sources that are not subject to categorical standards, considering same factors as for categorical standards Domestic Sewage Exclusion--eliminates RCRA domestic sewage exclusion for hazardous wastes mixed w/ domestic sewage and discharged to POTW unless industrial user is covered by, or EPA has promulgated a schedule for establishing, a categorical standard or unless the pollutant and source are subject to a local limit which is ~~equivalent to~~ BAT under RCRA restrictions Prohibits discharges of hazardous ~~wastes to POTWs~~ Amends §402(b) ~~(delegation of permit program to States)~~ to require: ~~that States require~~ POTWs discharging more than 5 million gallons of effluent per day to have a pretreatment program, and, that States issue a permit to any significant industrial user introducing a pollutant to a POTW that has not established a pretreatment program w/i 2 years	consider pollution prevention and cross-media impacts, EPA+			

Amends sec. 402(b)(8) to require POTW permits to contain limits for each pollutant discharged by an SIU that is regulated by a WQS

Amends 402(b)(10) to req. monthly monitoring for SIUs and quarterly monitoring for other industrial users

Issue	Current CWA	S. 1081 (Baucus)	H.R. 2029 (Studds)	H.R. 735 (Hefley)	H.R. 12 (Hughes)	S. 733 (Graham)
Toxic Reduction Action Program		Requires each POTW serving a population of greater than fifty thousand persons to develop and implement a Toxic Reduction Action Program w/i 3 years, to prevent the introduction of nonindustrial toxic pollutants into the treatment works, giving priority to sources that contribute toxic pollutants resulting in WQS violations in local receiving waters, EPA to issue guidance w/i 1 year and biennially thereafter, EPA to approve programs				
Wastewater Operator Training and Certification	CWA §§109 and 110 authorizes EPA to make grants to colleges and universities for training of students for occupation involving design, operation, and maintenance of treatment works	Establishes programs for training operators of municipal and industrial wastewater treatment works and other water quality control facilities and for certifying proficiency of treatment plant operators; EPA guidelines on minimum standards for certification; $15 million for each of FYs '91 and '92				
Posting of Signs for Water Quality Standard Violations			Adds a new §521 to the CWA requiring each State that has navigable waters within its boundaries that do not meet applicable water quality standards to post and maintain a clearly visible sign at each major place of public access to those waters indicating that WQS which the waters fail to meet and the principal health and environmental effects that may result		EPA regs on coastal water quality monitoring to include req'ts that States or localities notify the public and post signs for violations of applicable water quality standards	
Certification	§401		Requires, as part of the §401 process, that States certify that the proposed activity will not cause or contribute to failure to achieve WQS			Extends CWA §401 permit certification to contiguous zone Amends §309 adding a provision requiring EPA to enforce certification provisions
Ocean Discharge Criteria	403(c)--requires EPA to establish criteria for the discharge of pollutants into the ocean	Adds §304(l) water bodies to the covered waters under §403. Requires EPA, w/i 18 months and biennially thereafter, to promulgate "biological discharge criteria" for determining degradation of waters covered under §403 EPA can deny a §402 permit for the covered waters if discharge can reasonable be expected to adversely affect balanced indigenous population	Amends §301 to make it unlawful to discharge pollutants in violation of §403 Expands application of §403 to NEP estuaries, no waiver for discharges into these estuaries; requires EPA w/i 18 months to revise §403(c) guidelines			Adds a 60 day review period for ocean discharge permits under CWA §403(c) by any State whose waters may be affected by the discharge

Issue	Current CWA	S. 1081 (Baucus)	H.R. 2029 (Studds)	H.R. 735 (Hefley)	H.R. 12 (Hughes)	S. 733 (Graham)
Research	CWA §104	Establishes National Water Quality Research Committee to advise EPA on major CWA research needs, EPA to conduct research on effects of pollution on fish, shellfish, wildlife, authorizes $80 million/yr. for FYs '92--'99	Provides for extension of authorization through FY 1999, without amendments, for CWA §§104(u)(1) and 104(u)(2)		Requires EPA to conduct an ongoing study to provide additional info for use in developing better indicators for directly detecting in coastal recreation water the presence of bacteria and viruses which are harmful to human health, and to submit a report to Congress w/i 4 years	
Technology Demonstration Program	CWA §105	Authorizes programs to demonstrate new or significantly improved water pollution control technologies; projects must advance the control of point and nonpoint sources or potential sources of pollution, sewage sludge management and pollution prevention, Biennial report; $20 million for each of FYs '91-'99				
State Grant Assistance	CWA §106	Establishes grants for comprehensive State water quality management programs to support, at a minimum: continuing planning under §303(e), WQS, monitoring, NPS, clean lakes, and imminent and substantial threat; grants contingent upon EPA approval of a State's annual plan and report; State program must include ground water quality program, 25% reserved for innovative control and prevention activities, State allocations no less than 1991 levels, 50/50 non-federal cost share				

Issue	Current CWA	S. 1081 (Baucus)	H.R. 2029 (Studds)	H.R. 735 (Hefley)	H.R. 12 (Hughes)	S. 733 (Graham)
Fees		Requires States to collect fees from industrial and municipal point source dischargers to cover the cost of issuing discharge permits. States to amend NPDES program w/i 2 years to include a program to collect permit fees. Fees must recover 60% of the costs of administering State permit program	Requires EPA, w/i 2 years, to issue regulations which establish a "National Coastal Discharge Permit Fee System" under which EPA would assess and collect fees from coastal dischargers. Requires EPA to provide for hardship waivers and allows for States to collect the fees if the State shows that it can collect an equivalent amount and if the fees collected by the State are retained and used solely to support the State's water quality programs. Makes each industrial user of a POTW which discharges into coastal waters liable for fees under this section.			
Interstate Disputes	Fayetteville issue--will be decided by the Supreme Court; U S. Court of Appeals decided that downstream standards apply to upstream discharges; EPA argues that the CWA gives permitting agencies the discretion to make permit applicants satisfy a downstream state's WQS on a case-by-case basis	Addresses problem of violation of downstream State's WQS from upstream source located in another State. Clarifies procedures for resolving interstate disputes in permit issuance. Provides for EPA decision on the record as to whether pollution is causing a substantial violation of a water quality requirement of another State				
Permit Program Modifications		Need to discharge--makes an applicant for a permit demonstrate this permit reopener--if 3 years or more remaining, permit must be reopened to incorporate new standards within 18 months of their issuance Repeat violations--dischargers w/ 2 or more permits in violation would be unable to obtain permits for new discharges, and planning of new facilities and issuance of a permit would be coordinated	Timing--makes any permit term, condition, or requirement take effect upon issuance of the permit unless the permittee makes certain specified demonstrations. Permit Conditions--Authorizes EPA or the delegated State, upon approval of a coastal water quality monitoring program, to incorporate into appropriate discharge permits the applicable monitoring requirements			

Issue	Current CWA	S. 1081 (Baucus)	H.R. 2029 (Studds)	H.R. 735 (Mefley)	H.R. 12 (Hughes)	S. 733 (Graham)
Enforcement		Overrules Gwaltney case to allow citizens to sue for wholly past violations; amends §§505 and 309 to allow court to order penalties be used for beneficial projects or to restore damaged natural resources; amends §505 to allow citizens to sue for violations of pretreatment requirements; amends §309 to make violations of pretreatment requirements federally enforceable; broadens §504 emergency powers; requires public notification of significant noncompliance by dischargers; authorizes EPA to withhold up to 25% of §106 funds from States that fail to adopt minimum administrative civil penalties	Amends the CWA to- make it clear that civil penalties, administrative penalties, and third party penalties imposed on violators by the court may include beneficial mitigation projects consistent with the purposes and goals of the CWA; allow EPA to order a defendant to "take any other appropriate action" instead of just ordering compliance and assessing penalties; authorize citizen suits for wholly past violations, stiffen penalties to eliminate any economic benefit or savings that may have accrued as a result of the violation; impose prohibitions on federal procurement contracting with any person who has been found to have committed repeated violations of CWA requirements; authorize EPA to commence an administrative enforcement action against any federal facility to enforce the provisions of the CWA, strengthen the emergency powers of the Administrator; provide authority to withdraw part of a State program, make any permit term take effect upon issuance of the permit unless the permittee makes certain specified demonstrations; prohibit any federal agency from undertaking any activity that may adversely affect the quality of the navigable waters in any State which the Administrator finds has demonstrated a pattern of continuing and chronic violations of a water quality standard in effect for coastal waters or continuing and chronic failure to protect or maintain a designated use.			

Issue	Current CWA	S. 1081 (Baucus)	H.R. 2029 (Studds)	H.R. 735 (Reflley)	H.R. 12 (Hughes)	S. 733 (Graham)
Environmental Auditing		Requires environmental audits of facilities that discharge to water and are subject to TRI, to determine compliance with discharge permits and identify necessary steps and schedule for improving compliance. EPA rules to specify audit schedules and priorities of facilities subject to auditing EPA to certify environmental auditors.	Requires each federal agency which owns or operates a facility that discharges pollutants into navigable waters that would qualify it as a major discharger if it were an industrial facility to develop and implement a program to conduct on an ongoing basis environmental audits of its qualifying facilities Requires each industrial discharger and each publicly owned treatment works that discharges pollutants into navigable waters and that is found by EPA or a State to have repeated violations of a discharge permit or an approved consent decree to conduct biannually an environmental audit of the facilities subject to the permit or consent decree Requires EPA, within 3 months of enactment, to issue regulations establishing eligibility requirements for certification of environmental auditors			
State Revolving Funds		Provides various operational amendments to Title VI, including that the purchase of necessary lands and easements shall be an eligible use of the SRF. Allotment of funds under the current formula is continued through FY '96, but EPA is authorized to award incentive capitalization grants to States that maintain State matching fund contributions at FY '91 levels. Loan repayments of 40 years (instead of 20) are allowed in the case of innovative wastewater treatment projects.	Broadens eligibilities (the types of projects for which funding is available from SRFs) to include projects to fix CSOs. (May also include Great Lakes Protection programs under CWA § depending on whether or not there is a drafting error on pg. 97) Extends the period of application for SRF funds and the formula period through 1994. Makes the formula for allotment of funds to SRFs during FYs 1995 through 1999 contingent upon an expanded needs survey (which includes stormwater discharges and CSOs) required to be submitted to Congress by EPA by July 1, 1992 Extends authorizations of appropriations for SRFs at $2.1 billion annually for FYs '92 through '99			
Small Community Funding						

Issue	Current CWA	S. 1081 (Baucus)	H.R. 2029 (Studds)	H.R. 735 (Hefley)	H.R. 12 (Hughes)	S. 733 (Graham)
Indians	CWA §518 authorizes EPA to treat Indian tribes as States in order to delegate the NPDES and other programs to the It also required EPA to assess their need for sewage treatment works and to make grants to tribes to control non-point sources of pollution	Increases funds available to tribes for wastewater treatment works construction and nonpoint source pollution management. Authorizes financial assistance funds for Indian tribes				
Reports to Congress		Amends §516(a) to required Clean Water Report on January 1 of the yard following enactment and every 3 yrs thereafter on measures taken to implement CWA, w/ recommendations Amends §516(b) "Cost of Clean" report replaced by an "infrastructure needs report" which includes CSOs, storm water, NPS costs. Due w/i four years, and every 5 years thereafter.	Requires that coastal States include a description of their activities under the State's Coastal Water Quality Protection Program in their §305(b) biennial state water quality reports			

WATER-BODY/ WATERSHED SPECIFIC PROPOSALS

	Current CWA	S. 1081 (Baucus)	H.R. 2029 (Studds)	S. 14 (Sarbanes)	S. 31 (Moynihan)	S. 829 (Glenn)	S. 1069 (Mitchell)	H.R. 64 (Bennett)	HR 622 (Panetta)	H.R. 850 (Cardin)
Chesapeake Bay	§117 Chesapeake Bay Program--States affected by the interstate management plan developed under the Chesapeake Bay Program may receive grant for implementing management mechanisms			Recognizes institutional structure of Bay program put into place by the '87 Chesapeake Bay Agreement; provides funding for EPA involvement in: general data collection and monitoring; a basinwide toxics reduction monitoring program; watershed land use data base; a monitoring demonstration program for urban & suburban runoff; and, a comprehensive, coordinated living resources program						

	Current CWA	S. 1081 (Baucus)	H.R. 2029 (Studds)	S. 14 (Sarbanes)	S. 31 (Moynihan)	S. 829 (Glenn)	S. 1069 (Mitchell)	H.R. 64 (Bennett)	HR 622 (Panetta)	H R. 850 (Cardin)
Great Lakes	§118 Great Lakes Program--Conceived to carry out U.S. responsibilities under the U S.-Canada Water Quality Agreement. As amended by the "Great Lakes Critical Programs Act of 1990", EPA to publish guidance on, and States to adopt, Great Lakes water quality standards; GLNPO to develop RAPs in "Areas of Concern" (toxic hot spots)		Survey--provides for EPA to conduct a survey of sediment contamination in coastal waters and Great Lakes Criteria and Standards--requires EPA to develop sediment quality criteria and standards to identify contaminated sediments, establish discharge limits, and define cleanup objectives Guidelines for Restoration Projects--requires EPA and Corps to develop guidelines for implementation of restoration projects for contaminated sediments Cleanups--requires EPA and Corps to implement contaminated sediment cleanup projects in coastal and Great Lakes waters		Purpose--to establish a nat'l program to identify & restore contaminated sediments in the Great Lakes and in coastal waters Task Force--establishes National Contaminated Sediment Task Force EPA Activities requires EPA to: survey contamination in Great Lakes and coastal waters; conduct research on restoration of contaminated sediments; publish criteria for contaminants in Great Lake and coastal sediment; promulgate numerical standards for such sediment quality, publish guidelines for restoration; and choose the demonstration projects	Purpose--to promote effective and efficient source reduction of sedimentation in federally authorized commercial harbors, channel maintenance project sites, and areas of environmental concern in the Great Lakes basin Grants Corps to make grants to States for projects to reduce erosion and runoff that leads to sedimentation of harbors; grants to be consistent w/ State's NPS control program and RAPs and LMPs					

	Current CWA	S. 1081 (Baucus)	H.R. 2029 (Studds)	S. 14 (Sarbanes)	S. 31 (Moynihan)	S. 829 (Glenn)	S. 1069 (Mitchell)	H.R. 64 (Bennett)	HR 622 (Panetta)	H.R. 850 (Cardin)
National Rivers Assessment and Protection		Would establish a NEP-like program for rivers; EPA to select rivers, giving priority to those w/ significant WQS violations; requires the following rivers to be given priority consideration: Hudson River; Susquehanna River, Delaware River; Rio Grand River, and the Columbia River								

	Current CWA	S. 1081 (Baucus)	H.R. 2029 (Studds)	S. 14 (Sarbanes)	S. 31 (Moynihan)	S. 829 (Glenn)	S. 1069 (Mitchell)	H.R. 64 (Bennett)	HR 622 (Panetta)	H.R. 850 (Cardin)
Lakes	§314 Clean Lakes Program--States required every two years to submit to EPA for approval a report on lake water quality						Purpose--to assess and protect the quality of the Nation's lakes Designations--States to designate use of each publicly owned lake Criteria--EPA to publish w/i 2 yrs , criteria for specified water quality parameters Standards--States, w/i 2 yrs., to establish for each publicly-owned lake numerical standards; EPA steps in for States to establish standards if State fails State Clean Lakes Program--States submit application to EPA for grant assistance SRF--makes implementation of lake protection programs and projects eligible under SRF Nutrient Control--requires EPA, w/i 2 yrs, to issue regs prohibiting distribution for sale of detergents and related products containing phosphate USDA Coordination--provides links btwn lake program and. Agricultural conservation program, ag water quality incentives program, environmental easement program, conservation reserve program			

	Current CWA	S. 1081 (Baucus)	H.R. 2029 (Studds)	S. 14 (Sarbanes)	S. 31 (Moynihan)	S. 829 (Glenn)	S 1069 (Mitchell)	H.R. 64 (Bennett)	HR 622 (Panetta)	H.R. 850 (Cardin)
National Estuary Program	CWA §320--States nominate estuaries of national; significance that are threatened; EPA evaluates nominations and selects those which merit a nat'l demonstration program; management conferences are convened for the selected estuaries to develop a comprehensive conservation and management plan; EPA grants to cover up to 75% of the costs of the plan (not implementation)		Extension--amends §320 to specifically provide for a 5-year extension of the management conference. EPA Responsibilities--adds EPA responsibilities, including technical assistance and funding, for implementing the plans developed by the management conferences. Consistency--requires, upon approval of a conservation and management plan, that all federal financial assistance programs and federal development projects be conducted in a manner which is consistent with the enforceable requirements of the plan. Authorizes $20 million for each of FY's '92 through '99 for making conservation and management plan implementation grants.					To give St. John's River, FL priority under the NEP	To give Morro Bay, CA priority under the NEP	

WETLANDS-RELATED ISSUES

WETLANDS ISSUES	Current CWA	S 1081 (Baucus)	H R 251 (Bennett)	H.R. 404 (Hammerschmidt)	H.R. 1330 (Hayes)	H.R. 2400 (Thomas)	H.R. 1010 (Paxton)	S 887 (Jeffords)	S 1090 (Kasten)
EPA Veto Authority	§404(c) provides EPA with authority to modify or veto Corps-issued permits		Retains the same basic authority	Repeals this EPA authority	Repeals this EPA authority				
EPA's §404(b)(1) Guidelines	Environmental criteria used in evaluating discharge permits		Retains the same basic authority	EPA to amend in a number of ways: incorporation of no overall net loss goal; differential protection; consideration of property ownership	Repeals this authority	Retains the authority, adds requirement that EPA notify Corps and the applicant w/i 30 days of receiving application of potential adverse decision; adds administrative appeal process			
Wetlands Classification/ Differential Protection	No classification scheme			Requires EPA to amend §404(b)(1) guidelines to afford different levels of protection to wetlands based on acreage, function, and value (2 categories)	Accords different levels of protection to wetlands depending upon their classification by DOI into one of three different categories	Wetlands classified as either "suitable" or "unsuitable" for conversion under advanced planning			
Mitigation Banking				Corps in consultation with EPA authorized to establish and implement demonstration program for determining feasibility of mitigation banks	Requires the Corps in consultation with DOI to establish a mitigation banking program in each State	Corps, EPA, DOI to jointly issue rules establishing a wetlands mitigation banking system			
State Wetlands Preservation			Authorizes Corps grants to States for State Wetlands Conservation Plan submitted to the Corps and approved by Corps (in consultation with EPA)	Authorizes States to submit to EPA for approval a State wetlands conservation plan, provides grants for approved plans		Authorizes States to submit to EPA for approval a State wetlands conservation plan, provides grants for approved plans			
State Assumption of Permitting Program	Allows for States to assume the §404 program		Provides for the delegation of the permitting program to the States upon approval by EPA of a State Conservation Plan which contains a request for the permitting program	Provides for the delegation of the permitting program to the States upon approval by EPA of a State Conservation Plan which contains a request for all or part of the permitting program	Provides for the delegation of the program established by this bill to States	Amends existing delegation regime so that States have much more autonomy in their decision making in delegated programs, allows State program for part of State			

WETLANDS ISSUES	Current CWA	S. 1081 (Baucus)	H R 251 (Bennett)	H.R. 404 (Hammerschmidt)	H.R. 1330 (Hayes)	H.R. 2400 (Thomas)	H.R. 1010 (Paxton)	S 887 (Jeffords)	S 1090 (Kasten)
"Takings"	Denial of a permit is not considered a "taking", E O. 12630 concerns regulatory actions interfering with property rights			EPA to amend §404(b)(1) to accord greater deference to property rights, Corps and EPA must list efforts to implement E.O. 12630	Establishes procedure for providing compensation to landowners who own lands that have been classified as "Type A Wetlands"				
Wetlands Delineation Manual	An interagency manual which establishes a consistent approach to wetlands delineation; its revision should be completed soon			Corps to establish, by regulation, standards to govern delineation of wetlands	Corps to establish, by regulation, standards to govern delineation of wetlands	Corps, USDA, DOI, and EPA to jointly conduct rulemaking under APA to revise delineation manual	Specifically prohibits federal agencies from implementing the Federal Manual for Identifying and Delineating Jurisdictional Wetlands		
Wetlands Preservation Trusts			Requires the Corps to designate a nonprofit organization to be a Wetlands Preservation Trust	Requires OTA to conduct a study of incentives under federal and State law for private entities to protect and manage wetlands		Authorizes DOI to enter into agreements to transfer wetland through sales, exchanges, donations to Wetland Preservation Trusts or to thee National Refuge System			
Tax Treatment of Donations of Land for Wetlands Preservation Trusts			Sets forth special IRS rules regarding charitable contribution by an individual of wetlands to a Wetlands Preservation Trust					Provides for special valuation of wetlands inherited with environmental preservation easement (10 years) and penalty for failure to maintain easement	Refund in price rec'd for milk not considered price support or payment for purposes of wetland conservation requirements

WETLANDS ISSUES	Current CWA	S. 1081 (Baucus)	H R. 251 (Bennett)	H.R. 404 (Hammerschmidt)	H.R. 1330 (Hayes)	H.R. 2400 (Thomas)	H R. 1010 (Paxton)	S 887 (Jeffords)	S 1090 (Kasten)
Wetlands Preservation Account			Establishes in the Treasury an account from penalties; funds from which: at least 60% of which would be used for grants for wetlands preservation in those States which have approved plan						
Advanced Identifications of Wetlands			Requires DOI inventory of federally-owned wetlands; States which assume permitting program required to identify wetlands that warrant priority consideration of protection/ restoration	Directs EPA to continue to provide advanced wetlands identification and makes provisions for local participation; State wetlands Conservation Plans must include maps depicting wetlands in State including listing of high value wetlands	USFW to identify and classify wetlands nationally; 10-year project	Authorizes EPA--jointly with States--to conduct advanced planning by identifying and describing wetlands which are suitable or unsuitable for permitted activities			
"No Net Loss" Goal	The President's goal is not explicitly stated in the CWA		Explicitly states goal and makes it a part of federal and State programs	Explicitly states goal and makes it a part of federal and State programs		Explicitly makes "no net loss" goal a part of the CWA			

GROUND WATER AND DRINKING WATER

Issue	CWA	S. 1081 (Baucus)	S. 35 (Moynihan)	S. 36 (Moynihan)	S. 931 (Reid)	S. 939 (Durenberger)	H.R. 170 (Oberstar)	H.R. 255 (Bereuter)	H.R. 256 (Bereuter)	H.R. 688 (Gallo)	H.R. 774 (Visclosky)
Ground-Water	§319(i) grants to States for protecting ground-water quality under the nonpoint source program				Requires EPA to establish in Nevada the National Arid Climate Groundwater Research Center. Center run by a Board ad funded at $1 million annually	Amends SWDA to establish a ground water protection policy	EPA to establish stds & regs to prevent GW contamination by pesticides; States to prepare, and submit to EPA for approval prevention programs	Federal assistance from DOI for GW resource projects, with emphasis on rural domestic and municipal water supply	Add'l funds for High Plains GW Demonstration Program		
Drinking Water			EPA regs on bottled water subject to public water health standards (SDWA)	To establish a DOI program of monitoring and development to prevent the introduction & infestation of zebra mussels into the N.Y. City water supply system						Restricts landfill construction within critical aquifer protection areas unless comprehensive State mgmt plan (SDWA) (CWA §101)	Tax exclusion for construction of water mains necessitated by contaminated well water

RECLAMATION, CONSERVATION, AND MISCELLANEOUS

Issue	CWA	Senate Bill	S. 485 (Bradley)	H.R. 48 (Bennett)	H.R. 843 (Atkins)	H.R. 844 (Atkins)	S. 481 (Simon)	H.R. 808 (Hunter)	H.R. 988 (Boxer)
Reclamation Research			DOI to study reclamation of surface water, wastewater & GW				DOI to research desalting of water & water reuse	DOI and San Diego to study water reclamation and reuse	
Water Conservation				Reconstruction of lands affected by water resources projects (WRDA) (Army)	Develops national stds. for plumbing products to conserve water resources (Commerce)	New EPA office to develop programs to beneficially reduce water use & loss			Tax credit for water conservation system, purchase & installation on farmland

OCS OIL AND GAS LEASES; COASTAL RESOURCES

Issue	CMA	S. 1081 (Baucus)	S. 49 (Stevens)	S. 734 (Graham)	S. 735 (Graham)	S. 736 (Graham)	S. 737 (Graham)
Oil and Gas Leasing				Prohibits DOI from preparing for or conducting any activity under the OCSLA off the coast of Florida, exception for environmental or oceanographic studies		Changes national interest to balance environment with oil & gas interests in approving or canceling leasing programs (OCSLA)	
Beaches & Coastal Resources			Commerce administers Coastal Resources Enhancement Fund to give block grants to states based on offshore leases; Commerce administers Coastal Zone Impact Assistance Fund to give grants based on energy facilities located with each state's coastal zone. (CZMA; OCSLA)		Army to perform cost/benefit & long-range planning analysis of restoring eroded or eroding beaches before project commences (WRDA §904)		NOAA to analyze existing and projected reqts of federal, state & local regulators for scientific data and info on coastal & marine environment; NOAA to also evaluate current research programs & activities

PROJECTS

H R 76 (Mr Duncan)	To direct the Army Corps of Engineers to carry out a project for streambank protection along 2 2 miles of the Tennessee River adjacent to Sequoyah Hills Park in Knoxville, Tennessee
H R. 484 (Mr Hefley)	To improve the water quality of water flowing from the Leadville Mine Drainage Tunnel, Colorado, and the Upper Arkansas River Basin, and the other purposes.
H R. 1029 (Mr. Traficant)	To direct the Secretary of the Army to conduct a study of the feasibility of constructing a canal connecting Lake Erie and the Ohio River, Ohio and Pennsylvania, for the purpose of navigation.
H R 1183 (Mr. Campbell)	To provide for the transfer of the Platoro Reservoir of the Conejos Water Conservancy District of the State of Colorado and the protection of fish and wildlife habitat of the Conejos River.
H.R. 1563 (Mr. Herger)	To establish an Upper Sacramento River fishery resources restoration program.
H R. 1679 (Mr. Studds)	To protect, restore, and conserve important fish habitat
H.R. 1698 (Mr. LaFalce)	To amend the Federal Water Pollution Control Act to allow all recipients of grants for treatment works to use dedicated ad valorem taxes in order to meet the requirement of the Act that such recipients adopt user charges to pay for operation and maintenance of treatment works.
H R. 1699 (Mr. LaFalce)	To amend the Federal Water Pollution Control Act relating to the construction and operation of certain treatment works which are subject to regulation under international treaties
H.R. 1728 (Mr. Herger)	To establish an Upper Sacramento River fishery resources restoration program.
H.R. 1729 (Mr Hopkins)	To amend the Water Resources Development Act of 1986 to provide Federal cost sharing for water supply projects, and for other purposes.
H.R. 2005 (Mr. McCrery)	To grant the consent of Congress to an amendment to a compact ratified by the States of Louisiana and Texas and relating to the waters of the Sabine River.
H R. 2052 (Mr. Fazio)	To authorize the Secretary of the Interior, upon payment of a specified sum, to transfer title to certain water supply facilities of the Solano Project to an organization composed of the users of water from the Solano Project, to enhance Putah Creek, to authorize use of the proceeds of the sale to fund selected environmental enhancement measures, and for other purposes
H R. 2053 (Mr Frank)	To authorize the Massachusetts Water Resources Authority to use a facility for the treatment of residual waste located outside of the State of Massachusetts.
H R 2084 (Mr. Tallon)	To establish a minimum requirement for the water quality criteria for dioxin published pursuant to section 304(a) of the Federal Water Pollution Control Act, to require each State to adopt a water quality standard for dioxin which is at least as stringent as that criteria, and to direct the United States Fish and Wildlife Service, in consultation with National Oceanic and Atmospheric Administration, to conduct a study on the effects of dioxin on wildlife, aquatic life, and the entire aquatic environment
H.R. 2169 (Mr. Fazio)	To provide for the repayment of the costs of water pumps purchased by the San Juan Suburban Water District by the Secretary of the Interior
H R. 2325 (Mr Jontz)	To protect the Salt Creek river corridor in Porter County, Indiana, and for other purposes.
H R. 2368 (Mr Campbell)	To amend the Federal Water Project Recreation Act and to direct the Secretary of the Interior to prepare and implement a resources management program for the use and protection of water and related land resources of projects under the jurisdiction of the Bureau of Reclamation, and for other purposes
S. 484 (Mr Bradley)	To establish conditions for the sale and delivery of water from Central Valley Project, California, a Bureau of Reclamation facility, and for other purposes

S 702 (Mr Pressler)	To authorize the planning and construction of the Mid-Dakota Rural Water System Project
S. 728 (Mr Seymour)	To establish an Upper Sacramento River Fishery Resources Restoration Program.
S. 888 (Mr Moynihan)	To authorize funding for the carrying out of the functions of the United States in connection with the Great Lakes Fishery Commission
S. 926 (Mr. Wirth)	To transfer the responsibility for operation and maintenance of the Platoro Reservoir and Dam from the Federal Government to the Conejos Water Conservancy District in the State of Colorado.
H.J. Res. 186 (Mr. Roybal)	Directing the President to conduct an Initial Feasibility Study of an Alaska-California Under-Ocean Fresh Water Pipeline.
H Res. 110 (Mr. Lightfoot)	Relating to the role of the Corps of Engineers in the management of the Missouri River System.

WEDNESDAY, JULY 31, 1991

2:00-3:30 **POST-CCMP ACTIVITIES UNDER THE NATIONAL ESTUARY PROGRAM**

ISSUE:

The issue under discussion concerns EPA's role with respect to implementation of National Estuary Program (NEP) Comprehensive Conservation and Management Plans (CCMP) once they have been approved by the Administrator.

BACKGROUND:

The NEP represents a partnership across Federal, state, and local levels. This partnership is focused within the management conference, which is convened to reach consensus concerning priority problems of the estuary, the causes of those problems, and the actions that must be taken to correct those problems. The management conference also serves as the mechanism for obtaining commitments to take action. These commitments, reflected in the CCMP, are the result of a five-year planning process that is supported primarily by section 320 funds. From 1987 through 1991, the year the first CCMPs are due to be completed, nearly $53 million in Federal funds will have been committed for the development of CCMPs. These Federal funds will have been matched with non-Federal funds totaling approximately $18 million, for a total Federal/non-Federal investment of $71 million through 1991.

QUESTIONS:

- What does the statute provide?
- What funding authorities are available to enable EPA to support CCMP implementation?
- Can section 320 be interpreted to authorize any other financial support by EPA to an approved CCMP?
- Should Management Conferences be extended upon approval of the CCMP?
- What steps can EPA take within the current statute to support the implementation of CCMPs once they have been approved?

POTENTIAL RECOMMENDATIONS:

- Review base programs and assure that approved CCMPs receive clear priority for resources for implementation under base program guidelines and regulations.

- Take the lead in coordinating Federal agency implementation of CCMPs.

- Work with other demonstration programs to develop "joint venture" projects directed at high risk coastal areas.
- Develop protocols for the evaluation of approved CCMPs by management conferences (or other agency designated to implement the CCMPs), Regional officials, and Headquarters.

- Clarify to management conferences that formal extension by EPA is not required for EPA to provide financial support for either CCMP implementation or evaluation of CCMP implementation.

- Establish the continued active involvement of EPA Regional officials with the management conference (or implementing agency) and their public support of implementation activities. Include Regional FTE in workload model.

- Clearly establish the demonstration nature of section 320; that communities and states are capable of protecting and restoring their important natural resources without continued oversight by the Federal Government; that EPA's role is to empower and build capacity at state and local levels.

POST-CCMP ACTIVITIES UNDER THE NATIONAL ESTUARY PROGRAM

ISSUE

The issue under discussion concerns EPA's role with respect to implementation of National Estuary Program (NEP) Comprehensive Conservation and Management Plans (CCMP) once they have been approved by the Administrator. This issue includes whether, through what statutory authorities, and for what purposes EPA will contribute financially to the implementation of the CCMP, and the necessity of extending the management conference beyond the statutorily established five years.

BACKGROUND

The NEP identifies nationally significant estuaries threatened by pollution, development, or overuse, and promotes the preparation and implementation of CCMPs to ensure their ecological integrity. The Clean Water Act (CWA) amendments of 1987 authorized the Administrator to convene management conferences for these nationally significant estuaries, and provided Federal funds to assist the management conferences in accomplishing the purposes of CWA section 320. As of May 1991, 17 management conferences have been convened under the NEP, with the first CCMP approved by the Administrator for Puget Sound on May 6, 1991. Subsequent CCMPs are due to be completed over the next 5 years (through 1996).

The NEP represents a partnership across Federal, state, and local levels. This partnership is focused within the management conference, which is convened to reach consensus concerning priority problems of the estuary, the causes of those problems,

and the actions that must be taken to correct those problems. The management conference also serves as the mechanism for obtaining commitments to take action. These commitments, reflected in the CCMP, are the result of a five-year planning process that is supported primarily by section 320 funds. From 1987 through 1991, the year the first CCMPs are due to be completed, nearly $53 million in Federal funds will have been committed for the development of CCMPs. These Federal funds will have been matched with non-Federal funds totaling approximately $18 million, for a total Federal/non-Federal investment of $71 million through 1991.

WHAT DOES THE STATUTE PROVIDE?

Development of CCMPs - The CWA authorizes funds under subsection 320(g) for assisting research, surveys, studies, and modeling and other technical work necessary for the development of a conservation and management plan.

Establishment of Management Conferences - Subsection 320(a) of the statute provides for the establishment of management conferences, based on Governors nominations, by the Administrator. Subsection 320(e) limits the period of a management conference not to exceed 5 years, but authorizes the Administrator to extend, or reconvene upon termination, the management conference to meet the requirements of the section.

Implementation of CCMPs - Subsection 320(f)(2) states that upon approval of a CCMP such plan "shall be implemented." Funds authorized under titles II and VI of the CWA (construction grants and SRF) and section 319 funds (nonpoint source grants) may be used to assist states with CCMP implementation.

Post-CCMP Duties Under the CWA - Of the seven purposes to be accomplished by a management conference under Subsection 320(b) of the CWA, two can not be fully accomplished prior to approval and implementation of the CCMP. Purpose 6 requires the Management Conference to "monitor the effectiveness of actions taken pursuant to the plan". Purpose 7 requires a review of all Federal financial assistance programs and Federal development projects to determine whether they are consistent with the purposes and objectives of the CCMP.

Finally, subsection 320(j) requires EPA, in cooperation with NOAA, to submit a biennial Report to Congress evaluating pollution abatement activities and other measures taken during the development and, presumably, during the implementation of CCMPs.

WHAT HAS EPA SAID ABOUT POST-CCMP SUPPORT?

EPA has provided testimony at Congressional hearings concerning extensions of NEP management conferences, continued support for management conferences beyond the initial five years, and the role of EPA after approval of CCMPs. Tudor Davies, testifying on April 5, 1990 on the Long Island Sound Conservancy Act, indicated that extension of management conferences was being "contemplated, perhaps at a lower level of funding for support of the Conference, but we (EPA) would expect that the Conference would continue beyond the end of the five year period." Mr. Davies indicated that the purpose of extensions and continuing support would be for "administrative support, supporting the citizen involvement program, and to oversee the implementation (of the CCMP)."

William Matuszeski, testifying on June 6, 1991 on Title II of HR 2029 (Operation Coastal Shield), highlighted the intent of

management conferences to "promote and sustain long-term state and local commitment to solving the problems of an estuary," and indicated that the Administrator already has the authority to extend management conferences, as necessary, to meet the requirements of section 320. In his testimony, Mr. Matuszeski stated the Agency's position that creation of a source of funding for CCMP implementation, separate from existing sources provided under the CWA, would change the nature of EPA's role in the NEP from "catalyst for action" to "caretaker."

DISCUSSION

Considerable interest has been expressed by Congress, management conference representatives, as well as EPA officials (Regional and Headquarters) in how EPA can help to ensure implementation of CCMPs. A variety of ideas have been put forth which would include funding under the current section 320 authorities, as well as an amended CWA. Proposals and their rationale are included in this paper in order to reflect the current debate.

What funding authorities are available to enable EPA to support CCMP implementation? Does this include funds authorized under section 320?

The major issue which has been raised is whether EPA can support implementation of the CCMP under Section 320 as currently written. It appears clear that Congress intended that section 320 would support the development of the CCMP and that other titles and sections of the CWA would support implementation. Implementation funding advocates argue that a separate funding source should be established (in addition to base program support) in order to ensure a return, in terms of environmental results, on the Agency's large investment in CCMP development.

Supporters of this position are concerned about state and local ability to fully fund actions that are identified as being necessary in CCMPs. A separate, dedicated source of implementation funds would require a statutory change, as provided in bills now before Congress.

The Agency's current position, as reflected in recent testimony before Congress, is that Federal funds are already available from titles II and VI (SRF), section 319 (NPS grants), as well as section 106 grants, which helps to fund the NPDES program and enforcement. These programs may target priority actions in NEP estuaries and take a direct role in permitting and enforcement in States that have not been delegated NPDES authority. EPA Regions may also support NEP implementation with their Near Coastal Waters funds. In addition, other Federal agencies involved in the CCMP development process may contribute from base resources. The rationale for this position is that the NEP provides a Federal framework for addressing high priority estuaries, and that long-term funding must come from state and local constituents, including judicious use of existing Federal programs. Creative development of new sources of revenues, such as water use fees, livestock head taxes, special districts, and trust funds can be achieved when local commitment is high.

Can section 320 be interpreted to authorize any other financial support by EPA to an approved CCMP?

Section 320 appears to confer duties on both the management conference and EPA after the CCMP is approved. One duty is to monitor and report to Congress on implementation of the CCMP. Section 320(i) authorizes the Administrator to use funds for monitoring the implementation of the CCMP. EPA does not have the authority under section 320 to award grants for monitoring implementation. However, it appears that EPA can enter into

contracts and interagency agreements to oversee and evaluate implementation.

Some supporters of implementation funding have held that this authority might include funding of such activities as "enhancing implementation " of the plan, public outreach, and the design, conduct, or modification of water quality and ecological testing and monitoring. A more conservative reading of the statute might support the analysis of water quality and ecological test data, as well as the assessment and evaluation of the extent to which activities in the CCMP have been carried out, evaluation of their effectiveness in achieving the results expected by the management conference, and recommended redirection of implementation activities so that they are more effective.

Should Management Conferences be extended upon approval of the CCMP?

There appear to be several reasons offered for the extension of the management conference. One is a concern that the management conferences will either dissolve or lose momentum without this Federal designation. Presumably Congress, in establishing this demonstration program, believed that the community of interests represented within the management conference would be capable of carrying the CCMP into its implementation phase using the agreed upon actions outlined in the plan as a roadmap. Unfortunately, this has rarely happened in past programs (e.g., section 208), and concerns that the management conferences may not be maintained without continuing Federal support and presence are real.

Another reason is the concern that a formally established management conference is needed as the vehicle to transfer

Section 320 funds to the state for support of CCMP related activities. OGC has indicated that we may provide funds via contracts or cooperative agreements, but not grants, under section 320 to the state for CCMP related activities without extending the management conference.

What steps can EPA take within the current statute to support the implementation of CCMPs once they have been approved?

o Review base programs and assure that approved CCMPs receive clear priority for resources for implementation under base program guidelines and regulations. Carry out an active effort in both Headquarters and the Regions, including staff training, to develop avenues for support through base programs. For example:

- establish a proportion (e.g., 10%) of the 319 nonpoint source grant funds directed to high risk coastal areas (est. $5.5 M)
- establish a proportion (e.g., 20%) of the section 104 stormwater grants to be directed to high risk coastal areas (est $3.2 M)

- revise criteria for use of construction grants and SRF funds to give high priority to capital construction projects identified in approved CCMPs and give priority consideration to capital construction projects that are identified as priorities in Regional Near Coastal Waters Strategies

- establish that discharge permits and enforcement in estuaries with approved CCMPs will receive high priority in EPA/state permit review and issuance

- Work with other demonstration programs to develop "joint venture" projects directed at high risk coastal areas. Examples include the joint EPA/USDA sustainable agriculture research and education grants program, which will distribute $2 million in grants in FY91.

- Develop protocols for the evaluation of approved CCMPs by management conferences (or other agency designated to implement the CCMPs), Regional officials, and Headquarters. Work with management conferences on the analysis of water quality and ecological test data, as well as the assessment and evaluation of the extent to which activities in the CCMP have been carried out, evaluation of their effectiveness in achieving the results expected by the management conference, and recommended redirection of implementation activities so that they are <u>more</u> effective, as provided in 320(f).

- Clarify to management conferences that formal extension by EPA is not required for EPA to provide financial support for either CCMP implementation or evaluation of CCMP implementation.

- Establish the continued active involvement of EPA Regional officials with the management conference (or implementing agency) and their public support of implementation activities. Include Regional FTE in workload model.

- Clearly establish the demonstration nature of section 320; that communities and states are capable of protecting and restoring their important natural resources without continued oversight by the Federal Government; that EPA's role is to empower and build capacity at state and local levels.

MONITORING THE PERFORMANCE OF THE NATIONAL ESTUARY PROGRAM: DEVELOPMENT AND TESTING OF PROCEDURES

Background

The Clean Water Act (CWA), amended by the Water Quality Act of 1987 (WQA) established the nation's National Estuary Program (NEP). The overall goal of the NEP is to ensure/improve the ecological integrity of these estuaries by promoting basinwide planning to control pollution and manage living resources. Four specific objectives provide the framework for accomplishing the goal:

1. Establish working partnerships among Federal, state, and local governments;
2. Transfer scientific and management experience and expertise to program recipients;
3. Increase public awareness of pollution problems and ensure public participation in consensus building; and
4. Oversee development and implementation of pollution abatement and control programs.

Since 1987, after beginning with six original NEP projects, a total of 17 estuaries have been recognized as nationally significant and have received funds from the Clean Water Act to implement the objectives listed above. The principal organizing, planning and management, and implementing mechanism for these estuaries includes two features, as outlined in section 320 of the Clean Water Act: a Management Conference and a Comprehensive Conservation and Management Plan (CCMP). Both mechanisms were adopted as reasonable approaches for

assuring that a truly collaborative process (the Management Conference) would result in a well-designed set of recommendations and actions to provide a balanced strategy for protecting and conserving the estuaries.

There are over 100 estuaries in the nation's coastal areas. The 17 currently in the NEP serve to a great extent as models, in both an administrative as well as scientific sense, for managing the remaining estuaries. Nearly all estuaries share common problems, and it is expected that they will be able to benefit greatly from common solutions that emanate from the experience of NEP participants. It is, therefore, important that the experiences, processes, and progress of the NEP participants be monitored carefully and as thoroughly as possible.

As has been the case in similar predecessor programs, such as the Coastal Zone Management Program, the NEP is heavily reliant on intergovernmental collaborative approaches not usually found in most other federally promulgated programs. As such, the design and implementation of the CCMP for an estuary involves a variety of cooperative as well as unilateral but complementary actions by federal, state(s), and many local government entities, all having agreed on these roles and activities through the Management Conference.

Seven purposes for the Management Conference were specified as rules for designing and implementing the NEP (section 320 (b) of the CWA):[1]

1. Assess trends in water quality, natural resources, and uses of the estuary.
2. Collect, characterize, and assess data and identify the causes of environmental problems.

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1. "Financial Assistance for the National Estuary Program: Interim Final Rule," Federal Register Vol.54, No.190, October 3, 1989, p.40799.

3. Evaluate relationships between pollutant loadings and environmental effects.

4. Develop a CCMP.

5. Develop plans with states or other agencies to coordinate implementation of the CCMP.

6. Monitor the effectiveness of actions taken pursuant to the CCMP.

7. Review federal financial assistance programs and development projects for consistency with the CCMP.

Planning phases were also outlined by EPA to structure the development of estuary programs. "The first three phases of an estuary program (i.e., Planning Initiative, Characterization and Problem Definition, and CCMP Development) are completed within five years. Implementation may require as much as 20 years before all goals set in the CCMP can be achieved." [2] Preparation of annual work plans and individual project applications are some of the specific activities to be conducted within the five-year development period.

Objectives

The objective of this proposed work is to design and test procedures for regularly (e.g. annually) monitoring the progress being made in protecting estuaries in the National Estuary Program. The monitoring procedures will be designed to be useful for both:

- o assisting estuary program managers to improve their programs (by identifying current and emerging problem areas),

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2.Op. cit., p.40800.

- providing accountability to elected officials and the public relating to the progress towards estuary protection, and
- assessing the National Estuary Program as a whole.

Thus, the monitoring procedures will be designed to be useful to estuary officials and managers and to EPA national personnel. (The procedures will be designed with considerable participation of estuary personnel in order to make the product practical and useful.)

The monitoring procedures will be designed to track both progress in implementation of key estuary protection steps and in improving estuary protection outcomes (such as improved water quality, protection of species, reduced pollutant discharges, etc.). They will be designed to be useful during the various stages of individual estuary programs, including the initial five-year planning phase and thereafter. The information generated should provide guidance to estuary officials for making mid-course corrections. The information provided by the resulting performance monitoring procedures should also provide a sound basis for federal, state, and local governments to assess the successfulness of the current NEP approach itself--the focus on the Management Conference and CCMPs.

We recognize that this project scope is very wide, but we believe that this is what is most needed, and we believe it is achievable.

Approach

The performance monitoring system will be designed collaboratively with EPA national and regional officials, other estuary officials, and representatives of the program user community. The monitoring procedures will be explicitly intended for use by both top-level and mid-level agency

and estuary program managers. Substantial time will be allocated for work sessions with program staff at all levels to identify and define the performance indicators to be tracked and to participate in the development of the data collection procedures. This will maximize the likelihood that the monitoring procedures to be developed will be feasible and relevant.

We propose a four-phase effort. In the first phase, a set of procedures will be developed as a national model. While these national procedures will contain elements common to all estuary programs, many elements will need to be adapted to each estuary's own circumstances. In the second phase, the procedures will be adapted and piloted in three estuary programs. In the third phase, based on the findings from the pilot tests, the national procedures will be modified and documented thoroughly for use as starting points for monitoring systems in the other estuaries. Also in the third phase, we will provide training sessions on the procedures to federal and non-federal estuary program staffs. In the fourth phase, we would provide technical assistance to non-pilot estuaries to assist them in implementing their adaptation of the national performance monitoring procedures.

The following sections present steps to be undertake in each phase of work.

PHASE I: PROCEDURE DESIGN

Step 1: Establishing the Performance Monitoring Framework

We first will develop an overall framework for monitoring the performance of NEP estuaries. This will include an examination of relevant NEP materials in EPA headquarters for content and scope (such as estuary proposals, conference agreements, and annual work plans) and interviews

WEDNESDAY, JULY 31, 1991

2:00-3:30 **NEW NEP MANAGEMENT CONFERENCES**

ISSUE:

The issue under discussion concerns the convening of new management conferences under the National Estuary Program (NEP).

BACKGROUND:

The original premise of the NEP was that of a demonstration program, where nationally significant estuaries would be targeted for priority action. Under this concept, lessons and experience gained in this selected set of estuaries would be transferred to other coastal areas that were at risk, building regional and state capacity to solve coastal problems without the formal NEP designation. However, since the NEP was established under the 1987 amendments to the Clean Water Act, the popularity of the program has grown, particularly among the public and Congress. This has resulted in the NEP growing from 12 estuaries in 1987 to 17 estuaries in 1991. The Agency has recently received nominations to convene new management conferences for Peconic Bay in New York State and Morro Bay in California, with other states considering submitting nominations for their estuaries.

QUESTIONS:

- Do we continue to bring new estuaries into the NEP, or maintain a hard-line concerning the "national demonstration program" concept (i.e., close the door)?
- What are the resource implications of convening new management conferences (i.e., is there money/FTE available)?
- Does the convening of new management conferences impact the potential for success of the existing 17 management conferences?
- Are there criteria beyond those already developed for the evaluation of nominations that should be applied to new estuaries?
- If new management conferences are convened, have we learned enough to shorten the process and/or reduce the resource requirements?
- If we decide to convene new management conferences, what are the next steps (e.g., call for nominations, Federal Register notice, evaluation period, etc.)

POTENTIAL RECOMMENDATIONS:

- Maintain the "national demonstration program" concept and do not convene any new management conferences.
- Convene new management conferences, but do not commit to providing resources.
- Convene new management conferences, but reduce the period of time to develop a CCMP, and/or reduce the level of support based on "lessons learned."
- Convene new management conferences and maintain the same level of support provided to the first 17 management conferences.

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

JUL 10 1992

OFFICE OF WATER

MEMORANDUM

SUBJECT: Follow Up to the Water Management Division Directors Meeting in Des Moines, IA

FROM: Robert H. Wayland, III
Director, Office of Wetlands, Oceans and Watersheds

TO: Water Management Division Directors
Regions, I, II, IV, VI, IX, and X
Environmental Services Division Director
Region III

As requested during our discussions in Des Moines concerning future resource considerations under the National Estuary Program (NEP), attached please find a series of draft options that are being developed by the Oceans and Coastal Protection Division (OCPD). These options are intended to provide a framework for discussing the availability of resources under the NEP once comprehensive conservation and management plans (CCMP) are approved and implementation begins. The four options outline different scenarios for providing resources for "post-CCMP activities," including four years of "high" level funding upon completion of a CCMP, four years of "low" level funding upon completion of a CCMP, a four year phase-down in funding, and no funding once the CCMP is completed.

This information is being prepared for consideration at the OWOW National Program Meeting, scheduled for Charlottesville, VA July 30-August 2. At that time, OCPD will be seeking Regional input concerning several broad NEP issues, including post-CCMP activities, EPA's role in CCMP implementation, the possibility of convening new management conferences, and support needs for the 17 existing management conferences. I encourage your Region's attendance at this meeting and participation in these discussions.

Please call me at 382-7166 or Marian Mlay, Director of OCPD, at 245-3952 if you have any questions concerning the attached information, or have your staff call Mark Curran at 475-7102.

Attachments

Options for Post-CCMP Support

1. Four years level funding - high option
Large - $300K per year (4 yr. total $1.2M per large estuary)
Small - $200K per year (4 yr. total $800K per small estuary)

2. Four years level funding - low option
Large - $150K per year (4 yr. total $600K per large estuary)
Small - $100K per year (4 yr. total $400K per small estuary)

3. Four year phase down of funding
Large - $300K, $200K, $100K, $0 (4 yr total $600K/large estuary)
Small - $200K, $100K, $ 50K, $0 (4 yr total $350K/small estuary)

4. No funding for post-CCMP

PROJECTED NEP FUNDING*
Option 1 - Post CCMP funding underlined
(Dollars expressed in thousands)

ESTUARY	YEAR 92	93	94	95	96
Tier I (convened 1985-1987):					
PUGET SOUND	300	300	300	300	-0-
BUZZARDS BAY	200	200	200	200	-0-
NARRAGANSETT BAY	300	300	300	300	300
LONG ISLAND SOUND	300	300	300	300	300
APES	300	300	300	300	300
SAN FRANCISCO BAY	300	300	300	300	300
Tier II (convened 1988):					
NEW YORK-NEW JERSEY HARBOR	1000	700	300	300	300
DELAWARE INLAND BAYS	600	400	200	200	200
SANTA MONICA BAY	1000	700	300	300	300
SARASOTA BAY	600	400	200	200	200
GALVESTON BAY	1000	700	300	300	300
DELAWARE BAY	1000	700	300	300	300
Tier III (convened 1990):					
CASCO BAY	600	600	600	400	200
MASSACHUSETTS BAYS	1000	1000	1000	700	300
INDIAN RIVER LAGOON	1000	1000	1000	700	300
TAMPA BAY	1000	1000	1000	700	300
BARATARIA-TERREBONNE BAYS	1000	1000	1000	700	300

* Targets are revisited annually to factor in various considerations, such as renegotiated conference agreements.

PROJECTED NEP FUNDING*
Option 2 - Post CCMP funding underlined
(Dollars expressed in thousands)

ESTUARY	YEAR 92	93	94	95	96
Tier I (convened 1985-1987):					
PUGET SOUND	150	150	150	150	-0-
BUZZARDS BAY	100	100	100	100	-0-
NARRAGANSETT BAY	300	150	150	150	150
LONG ISLAND SOUND	300	150	150	150	150
APES	300	150	150	150	150
SAN FRANCISCO BAY	300	150	150	150	150
Tier II (convened 1988):					
NEW YORK-NEW JERSEY HARBOR	1000	700	300	150	150
DELAWARE INLAND BAYS	600	400	200	100	100
SANTA MONICA BAY	1000	700	300	150	150
SARASOTA BAY	600	400	200	100	100
GALVESTON BAY	1000	700	300	150	150
DELAWARE BAY	1000	700	300	150	150
Tier III (convened 1990):					
CASCO BAY	600	600	600	400	100
MASSACHUSETTS BAYS	1000	1000	1000	700	150
INDIAN RIVER LAGOON	1000	1000	1000	700	300
TAMPA BAY	1000	1000	1000	700	150
BARATARIA-TERREBONNE BAYS	1000	1000	1000	700	300

* Targets are revisited annually to factor in various considerations, such as renegotiated conference agreements.

PROJECTED NEP FUNDING*
Option 3 - Post CCMP funding underlined
(Dollars expressed in thousands)

ESTUARY	YEAR 92	93	94	95	96
Tier I (convened 1985-1987):					
PUGET SOUND	300	200	100	-0-	-0-
BUZZARDS BAY	200	100	50	-0-	-0-
NARRAGANSETT BAY	300	300	200	100	-0-
LONG ISLAND SOUND	300	300	200	100	-0-
APES	300	300	200	100	-0-
SAN FRANCISCO BAY	300	300	200	100	-0-
Tier II (convened 1988):					
NEW YORK-NEW JERSEY HARBOR	1000	700	300	300	200
DELAWARE INLAND BAYS	600	400	200	200	100
SANTA MONICA BAY	1000	700	300	300	200
SARASOTA BAY	600	400	200	200	100
GALVESTON BAY	1000	700	300	300	200
DELAWARE BAY	1000	700	300	300	200
Tier III (convened 1990):					
CASCO BAY	600	600	600	400	200
MASSACHUSETTS BAYS	1000	1000	1000	700	300
INDIAN RIVER LAGOON	1000	1000	1000	700	300
TAMPA BAY	1000	1000	1000	700	300
BARATARIA-TERREBONNE BAYS	1000	1000	1000	700	300

* Targets are revisited annually to factor in various considerations, such as renegotiated conference agreements.

PROJECTED NEP FUNDING*
Option 4 - Post CCMP funding underlined
(Dollars expressed in thousands)

ESTUARY	YEAR 92	93	94	95	96
Tier I (convened 1985-1987):					
PUGET SOUND	-0-	-0-	-0-	-0-	-0-
BUZZARDS BAY	-0-	-0-	-0-	-0-	-0-
NARRAGANSETT BAY	300	-0-	-0-	-0-	-0-
LONG ISLAND SOUND	300	-0-	-0-	-0-	-0-
APES	300	-0-	-0-	-0-	-0-
SAN FRANCISCO BAY	300	-0-	-0-	-0-	-0-
Tier II (convened 1988):					
NEW YORK-NEW JERSEY HARBOR	1000	700	300	-0-	-0-
DELAWARE INLAND BAYS	600	400	200	-0-	-0-
SANTA MONICA BAY	1000	700	300	-0-	-0-
SARASOTA BAY	600	400	200	-0-	-0-
GALVESTON BAY	1000	700	300	-0-	-0-
DELAWARE BAY	1000	700	300	-0-	-0-
Tier III (convened 1990):					
CASCO BAY	600	600	600	400	-0-
MASSACHUSETTS BAYS	1000	1000	1000	700	-0-
INDIAN RIVER LAGOON	1000	1000	1000	700	300
TAMPA BAY	1000	1000	1000	700	-0-
BARATARIA-TERREBONNE BAYS	1000	1000	1000	700	300

* Targets are revisited annually to factor in various considerations, such as renegotiated conference agreements.

NEP funding projections
(figures in thousands of $$)

A) Assume:

$15180 K	total funding level at FY92 Presidential Request
$ 1000 K	annual Action Plan Demonstration funding
$ 1518 K	annual 10% HQ Program Administration funding

15180	total funding
- 2518	HQ Program Administration (10%) + APDP funding
$ 12662	available funding for 17 Management Conferences

* * * * * * * * * * * * *

B) Funds Potentially Available for New NEPs
- example calculation

Projected Funding for 17 NEPs under Option 1

	FY92	FY93	FY94	FY95	FY96
Tier 1	1700	1700	1700	1700	1200
Tier 2	5200	3600	1600	1600	1600
Tier 3	4600	4600	4600	3200	1400
Projected funding targets for 17 NEPs	11,500	9900	7900	6500	4200

	FY92	FY93	FY94	FY95	FY96
Total funds	$ 12662	12662	12662	12662	12662
Targets	- 11500	9900	7900	6500	4200
Unclaimed	**1162**	**2762**	**4762**	**6162**	**8462**

Bold bottom line is funding (in thousand dollars) potentially available for new NEPs.

* * * * * * * * * * * * *

C) Applying these assumptions and calculations for all four post-CCMP options produces the following table. Numbers in table depict funding potentially available for new NEPs or other needs (in thousand dollars) over the next five years, for each option.

Option	FY92	FY93	FY94	FY95	FY96
1	1162	2762	4762	6162	8462
2	1412	3612	5612	7812	10262
3	1162	2962	5512	7462	10262
4	1662	4462	6462	9462	12062

Example of typical funding cycle for a large estuary (Galveston Bay) and a small estuary (Sarasota Bay) in Tier 2.

Fiscal Year -	88	89	90	91	92	93	94	95	96
GALVESTON BAY	150	700	1000	1000	1000	700	300	300	300
SARASOTA BAY	150	400	600	600	600	400	200	200	200

88 (start-up year) and 89 (year 1) are Phase 1 in workload model
90, 91, & 92 (peak funding) are phase 2 in workload model
93 (CCMP development) is phase 3 in workload model
94 and beyond (post-CCMP) are phase 4 in workload model

Looking at funds available under option 1 (the most fiscally constraining of the four options):

FY92 has enough money to provide convening/start-up money ($150K) to 7 programs.

FY93 can support first year funding for 4 large programs or 7 small programs (if we add $38K) or some combination such as 2 large and 4 small programs or 1 large and 6 small.

FY94 can support 4 large and one small program or 7 small programs (or 2 large/4 small or 1 large/6 small) that get started in FY93.

In FY94 and beyond, options 2, 3, & 4 support those plus give potential start-up funds for three more.

Conclusion

Funding projections for the next 5 years look flexible enough to give us several options for convening new management conferences.

NEP Workload Model

Estuary	Size	FY92 Phase	FY92 FTE	FY93 Phase	FY93 FTE	FY94 Phase	FY94 FTE	FY95 Phase	FY95 FTE	FY96 Phase	FY96 FTE
Buzzards Bay	S	4	1.0	4	1.0	4	1.0	4	1.0	------	
Narragansett Bay	L	3E	2.5	4	2.0	4	2.0	4	2.0	4	2.0
Long Island Sound	L	3E	2.5	4	2.0	4	2.0	4	2.0	4	2.0
Albemarle/Pamlico	L	3	3.0	4	2.0	4	2.0	4	2.0	4	2.0
San Francisco Bay	L	3	3.0	4	2.0	4	2.0	4	2.0	4	2.0
Puget Sound	L	4	2.0	4	2.0	4	2.0	4	2.0	------	
NY/NJ Harbor	L	2	3.5	3	3.0	4	2.0	4	2.0	4	2.0
Delaware Inland Bays	S	2	1.7	3	1.5	4	1.0	4	1.0	4	1.0
Santa Monica Bay	L	2	3.5	3	3.0	4	2.0	4	2.0	4	2.0
Sarasota Bay	S	2	1.7	3	1.5	4	1.0	4	1.0	4	1.0
Galveston Bay	L	2	3.5	3	3.0	4	2.0	4	2.0	4	2.0
Delaware Estuary	L	2	3.5	3	3.0	4	2.0	4	2.0	4	2.0
Massachusetts Bays	L	2	3.5	2	3.5	2	3.5	3	3.0	4	2.0
Tampa Bay	L	2	3.5	2	3.5	2	3.5	3	3.0	4	2.0
Barataria/Terrebonne	L	2	3.5	2	3.5	2	3.5	3	3.0	4	2.0
Casco Bay	S	2	1.7	2	1.7	2	1.7	3	1.5	4	1.0
Indian R. Lagoon	L	2	3.5	2	3.5	2	3.5	3	3.0	4	2.0
			47.1		41.7		36.7		34.5		27.0

We only have 44.0 FTE requested for 92 and will request same level in future.

Model Pricing Factors

Large estuaries	FTE	Small estuaries	FTE
Phase 1	3.0	Phase 1	1.0
Phase 2	3.5	Phase 2	1.7
Phase 3	3.0	Phase 3	1.5
Phase 3 Extension	2.5	Phase 3 Extension	1.3
Phase 4 Implementation	2.0	Phase 4 Implementation	1.0

FY92 model shows need for 47.1 FTE, but budgets only 44.0; allocation has been adjusted across the Regions (see Wayland memo dated June 3, 1991).

Using current workload model pricing, current expectations of progress, and planned future requests for level resources yields the following projection of FTE that could be made available for new management conferences as the current NEPs in Tier 1 and 2 finish CCMP development and move into the implementation phase.

Year	FTE potentially available for new NEPs
FY92	-0-
FY93	2.3
FY94	7.3
FY95	9.5
FY96	17.0

Conclusion

FTE projections are much tighter than funding projections.

These projections allow 2 new small NEP management conferences to start in FY93. FY94 figures allow for one new large and one new small program and the continuation of the two small NEPs that could start in FY92. FY96 is the first year that significant FTE will become available.

WEDNESDAY, JULY 31, 1991

2:00-3:30 **CURRENT NEP MANAGEMENT CONFERENCES**

TOPIC:

The topic for discussion concerns EPA's continuing support of existing National Estuary Program (NEP) management conferences during the development of comprehensive conservation and management plans.

BACKGROUND:

The NEP identifies nationally significant estuaries threatened by pollution, development, or overuse, and promotes the preparation and implementation of CCMPs to ensure their ecological integrity. The Clean Water Act (CWA) amendments of 1987 authorized the Administrator to convene management conferences for these nationally significant estuaries, and provided Federal funds to assist the management conferences in accomplishing the purposes of CWA section 320. As of May 1991, 17 management conferences have been convened under the NEP, with the first CCMP approved by the Administrator for Puget Sound on May 6, 1991. Subsequent CCMPs are due to be completed over the next 5 years (through 1996).

QUESTIONS:

- What general direction should EPA Headquarters take in FY92 in providing assistance to NEP management conferences?
- What specific technical/program assistance should be developed in FY92?
- Is it possible to adjust the annual workplan process so that NEP funds can be transferred to the Regions earlier in the fiscal year? How?

POTENTIAL RECOMMENDATIONS:

- Review and adjust the "ideal" NEP annual funding schedule so that HQ, Regions, and management conferences have realistic annual goals.
- Develop a strategy for "marketing" base programs to ensure that CCMP implementation receives high priority.
- Improve national tech transfer capabilities to take advantage of "lessons learned" and reduce redundancy among management conferences.

- Develop a list of on-site technical assistance needs that should be provided by EPA Headquarters.

- Identify priority Federal programs outside of EPA that should be targeted for CCMP implementation at the national level.

federal register

Tuesday
October 3, 1989

Part IV

Environmental Protection Agency

40 CFR Part 35

Financial Assistance for the National Estuary Program; Interim Final Rule

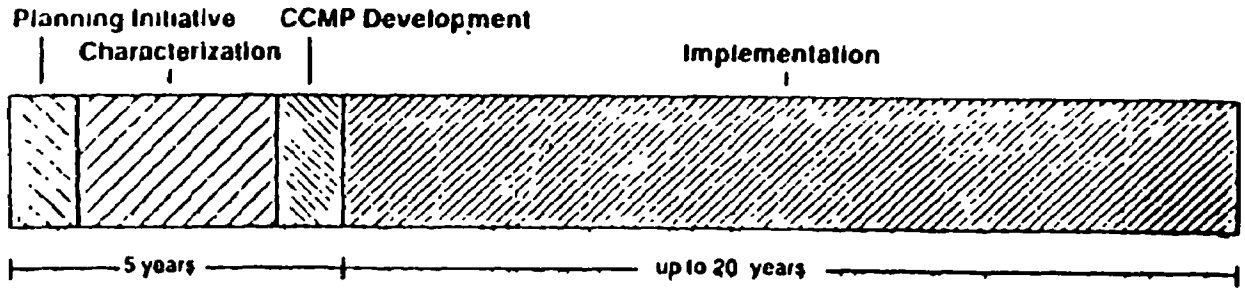

Figure 1. Phases of a Typical Estuary Project

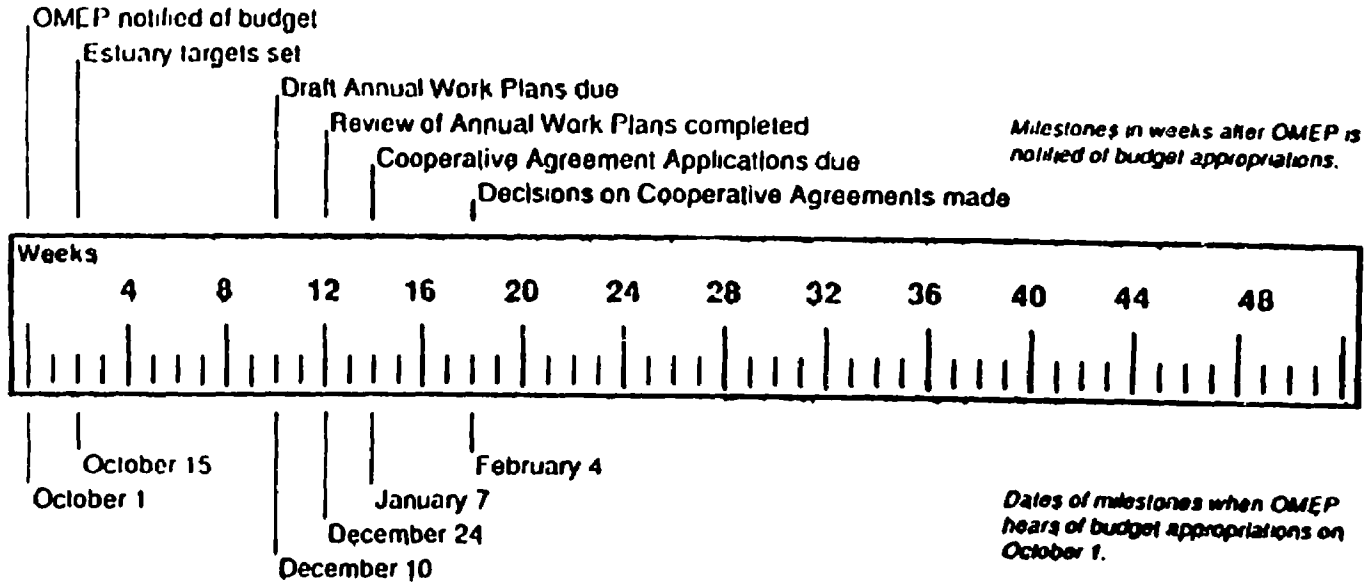

Figure 2. Cycle of Submission and Review of Annual Work Plans and Cooperative Assistance Application

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Figure 3 Sample Table of Fund Sources

FUNDING TABLE, FISCAL YEAR 1989

Source of funds	Amount	Type of award
EPA	$400 000	CWA Sect 320
State Matching Funds	125,000	State Appropriation
State Services in Kind	62 000	Monitoring Program.
Private Donations	38 000	Contributions (Save the Bay Project)
Total funding	625 000	

FUNDING TABLE, FISCAL YEAR 1989—Continued

Source of funds	Amount	Type of award
EPA Share = $400 000/$625 000 = 64%		
Rec. Share = $235,000/ $625 000 = 36%		

Figure 4 Sample Table of Project Status

PROJECT STATUS TABLE FISCAL YEAR 1989

Project name	Management conference purpose [1]	Products delivered/ projected	Date of delivery	Cost	Source of funds	Responsible organization	Percent nonfederal share (percent)
Waste load allocation study	1, 2	Study report	10/1/93	$180 000	EPA	State Water Quality Management Office	0
NPDES compliance report	1 2 and 3	Summary of compliance by each permitted facility	6/30/89	10 000	State Appropriation 275.27(q)	State NPDES Program Office	25
NPS study recommendations	2 3 and 4	Recommended NPS controls.	10/1/93	30 000 60 000	EPA State Appropriation 275.27(q)	State Water Resources Board	100

[1] Management conference purpose numbers refer to the seven purposes of a management conference set forth in section 320 of the Clean Water Act. This column provides an indication of the purposes(s) served by each project.

For the reasons set out in the preamble, title 40, chapter I, subchapter B, part 35 of the Code of Federal Regulations, is amended as follows

PART 35—[AMENDED]

1. Part 35 is amended by adding an authority citation for subpart P to read as follows

Authority: Sec 320 of the Clean Water Act, as amended (33 U S C 1330)

2. Subpart P is added to part 35 to read as follows.

Subpart P—Financial Assistance for the National Estuary Program

Sec.
35 9000 Applicability
35 9005 Purpose.
35 9010 Definitions
35 9015 Summary of annual process
35 9020 Planning targets
35 9030 Work program.
35 9035 Budget period.
35 9040 Application for assistance.
35 9045 EPA action on application.
35 9050 Assistance amount.
35 9055 Evaluation of recipient performance.
35 9060 Maximum Federal share.
35 9065 Limitations
35 9070 National program assistance agreements

Subpart P—Financial Assistance for the National Estuary Program

§ 35.9000 Applicability.

This subpart codifies policies and procedures for financial assistance awarded by the EPA to state, interstate, and regional water pollution control agencies and entities and other eligible agencies, institutions, organizations, and individuals for pollution abatement and control programs under the National Estuary Program (NEP). These provisions supplement the EPA general assistance regulations in 40 CFR parts 30 and 31.

§ 35 9005 Purpose.

Section 320(g) of the Clean Water Act (CWA) authorizes assistance to eligible states, agencies, entities, institutions, organizations, and individuals for developing a comprehensive conservation and management plan (CCMP) for an estuary

§ 35.9010 Definitions.

Aggregate Costs The total cost of all research, surveys, studies, modeling, and other technical work completed by a Management Conference during a fiscal year to develop a Comprehensive Conservation and Management Plan for the estuary.

Annual Work Plan The plan, developed by the Management Conference each year, which documents projects to be undertaken during the upcoming year The Annual Work Plan is developed within budgetary targets provided by EPA

Five-Year State/EPA Conference Agreement Agreement negotiated among the States represented in a Management Conference and the EPA shortly after the Management Conference is convened. The agreement identifies milestones to be achieved during the term of the Management Conference

Management Conference A Management Conference convened by the Administrator under Section 320 of the CWA for an estuary in the NEP.

National Program Assistance Agreements Assistance Agreements approved by the EPA Assistant Administrator for Water for work undertaken to accomplish broad NEP goals and objectives.

Work Program The Scope of Work of an assistance application, which identifies how and when the applicant will use funds to produce specific outputs.

§ 35.9015 Summary of annual process.

(a) EPA considers various factors to allocate among the Management Conferences the funds requested in the President's budget for the NEP. Each year, the Director of the Office of Marine and Estuarine Protection issues budgetary targets for the NEP for each Management Conference. These targets are based upon negotiated Five-Year State/EPA Conference Agreements

(b) Using the budgetary targets provided by EPA, each Management Conference develops Annual Work Plans describing the work to be completed during the year and identifies individual projects to be funded for the

completion of such work. Each applicant having a scope of work approved by the Management Conference completes a standard EPA application, including a proposed work program. After the applicant submits an application, the Regional Administrator reviews it and, if it meets applicable requirements, approves the application and agrees to make an award when funds are available. The Regional Administrator awards assistance from funds appropriated by Congress for that purpose

(c) The recipient conducts activities according to the approved application and assistance award. The Regional Administrator evaluates recipient performance to ensure compliance with all conditions of the assistance award.

(d) The Regional Administrator may use funds not awarded to an applicant to supplement awards to other recipients who submit a score of work approved by the management conference for NEP funds.

(e) The EPA Assistant Administrator for Water may approve National Program awards as provided in § 35.9070.

§ 35.9020 Planning targets.

The EPA Assistant Administrator for Water develops planning targets each year to help each Management Conference develop an Annual Work Plan. These targets are broad budgetary goals for total expenditures by each estuary program and are directly related to the activities that are to be carried out by each Management Conference in that year as specified in the Five-Year State/EPA Conference Agreement. The planning targets also are based on the Director's evaluation of the ability of each Management Conference to use appropriated funds effectively

§ 35.9030 Work program.

The work program is part of the application for financial assistance and becomes part of the award document. It is part of the basis for an award decision and the basis for management and evaluation of performance under an assistance award. The work program must specify the level of effort and amount and source of funding estimated to be needed for each identified activity, the outputs committed for each activity, and the schedule for delivery of outputs

§ 35.9035 Budget period.

An applicant may choose its budget period in consultation with and subject to the approval of the Regional Administrator

§ 35.9040 Application for assistance.

Each applicant should submit a complete application at least 60 days before the beginning of the budget period. In addition to meeting applicable requirements contained in 40 CFR part 30 or 31, a complete application must contain a discussion of performance to date under an existing award, the proposed work program, and a list of all applicable EPA-approved State strategies and program plans, with a statement certifying that the proposed work program is consistent with these elements The annual workplan developed and approved by the management conference each fiscal year must demonstrate that non-Federal sources provide at least 25 percent of the aggregate costs of research, surveys, studies, modeling, and other technical work necessary for the development of a CCMP for the estuary Each application must contain a copy of the Annual Work Plan as specified in § 35.9065(c) (2) and (3) for the current Federal fiscal year. The funding table in the workplan must demonstrate that the 25 percent match requirements is being met, and the workplan table of project status must show the sources of funds supporting each project.

§ 35.9045 EPA action on application.

The Regional Administrator will review each completed application and should approve, conditionally approve, or disapprove the application within 60 days of receipt When funds are available, the Regional Administrator will award assistance based on an approved or conditionally approved application. For a continuation award made after the beginning of the approved budget period, EPA will reimburse the applicant for allowable costs incurred from the beginning of the budget period, provided that such costs are contained in the approved application and that the application was submitted before the expiration of the prior budget period

(a) *Approval.* The Regional Administrator will approve the application only if it satisfies the requirements of CWA section 320; the terms, conditions, and limitations of this subpart, and the applicable provisions of 40 CFR parts 30, 31, and other EPA assistance regulations The Regional Administrator must also determine that the proposed outputs are consistent with EPA guidance or otherwise demonstrated to be necessary and appropriate, and that achievement of the proposed outputs is feasible, considering the applicant's past performance program authority organization, resources and procedures

(b) *Conditional approval.* The Regional Administrator may conditionally approve the application after consulting with the applicant if only minor changes are required. The award will include the conditions the applicant must meet to secure final approval and the date by which those conditions must be met.

(c) *Disapproval.* If the application cannot be approved or conditionally approved, the Regional Administrator will negotiate with the applicant to change the output commitments, reduce the assistance amount, or make any other changes necessary for approval. If negotiation fails, the Regional Administrator will disapprove the application in writing.

§ 35.9050 Assistance amount.

(a) *Determining the assistant amount.* In determining the amount of assistance to an applicant, the Regional Administrator will consider the Management Conference planning target, the extent to which the applicant's Work Program is consistent with EPA guidance, and the anticipated cost of the applicant's program relative to the proposed outputs.

(b) Reduction of assistance amount. If the Regional Administrator determines that the proposed outputs do not justify the level of funding requested, he will reduce the assistance amount If the evaluation indicates that the proposed outputs are not consistent with the priorities contained in EPA guidance the Regional Administrator may reduce the assistance amount.

§ 35.9055 Evaluation of recipient performance.

The Regional Administrator will oversee each recipient's performance under an assistance agreement. In consultation with the applicant, the Regional Administrator will develop a process for evaluating the recipient's performance. The Regional Administrator will include the schedule for evaluation in the assistance agreement and will evaluate recipient performance and progress toward completing the outputs in the approved work program according to the schedule The Regional Administrator will provide the evaluation findings to the recipient and will include these findings in the official assistance file. If the evaluation reveals that the recipient is not achieving one or more of the conditions of the assistance agreement, the Regional Administrator will attempt to resolve the situation through negotiation If agreement is not reached, the Regional Administrator may impose

sanctions under the applicable provisions of 40 CFR part 30 or 31.

§ 35.9060 Maximum federal share.

The Regional Administrator may provide up to 100 percent of the approved work program costs for a particular application provided that non-Federal sources provide at least 25 percent of the aggregate costs of research, surveys, studies, modeling, and other technical work necessary for the development of a comprehensive conservation and management plan for the estuary as specified in the estuary Annual Work Plan for each fiscal year

§ 35.9065 Limitations.

(a) *Management conferences.* The Regional Administrator will not award funds pursuant to CWA section 320(g) to any applicant unless and until the scope of work and overall budget have been approved by the Management Conference of the estuary for which the work is proposed

(b) *Consistency with work plans* The Regional Administrator will not award funds pursuant to section CWA 320(g) to any applicant whose application is not consistent with work plan elements in an approved Annual Work Plan and an approved Five-Year State/EPA Conference Agreement by the Management Conference of the estuary for which the work is proposed

(c) *Elements of annual work plans* Annual Work Plans to be prepared by estuary Management Conferences must be reviewed by the Office of Marine and Estuarine Protection before final ratification by the Management Conference and must include the following elements:

(1) Introduction—A discussion of achievements in the estuary, a summary of activities undertaken in the past year to further each of the seven purposes of a Management Conference specified in section 320(b) of the CWA, the major emphases for activity in the upcoming year, and a schedule of milestones to be reached during the year.

(2) Funding sources—A table of fund sources for activities in the new year, including a description of the sources and types (e g , in-kind contributions to be performed by the applicant) of funds comprising the contribution by applicants or third parties, and the source and type of any other non-Federal funds or contributions.

(3) Projects—A description of each project to be undertaken, a summary table of project status listing all activities, the responsible organization or individual, the products expected from each project, approximate schedules, budgets, and the source and type of the non-Federal 25 percent minimum cost share of the aggregate costs of research, surveys, studies, modeling, and other technical work necessary for the development of a comprehensive conservation and management plan for an estuary.

§ 35.9070 National program assistance agreements.

The Assistant Administrator for Water may approve the award of NEP funds for work that has broad applicability to estuaries of national significance. These awards shall be deemed to be consistent with Annual Work Plans and Five-Year State/EPA Conference Agreements approved by individual management conferences. The amount of a national program award shall not exceed 75 percent of the approved work program costs provided the non-Federal share of such costs is provided from non-Federal sources.

[FR Doc. 89-23235 Filed 10-2-89; 8 45 am]

BILLING CODE 6560-50-M

WEDNESDAY, JULY 31, 1991

COASTAL AMERICA

ISSUE:

This session will provide an update on the status of Coastal America and a discussion of future actions and the possibility of linking Coastal America more closely to ongoing programs (e.g. NEP, NCW)

BACKGROUND:

- Presidential interagency budget requested $23 million. House appropriation of $6M for EPA, zero for other agencies. Senate appropriations all zero so far, Interior committee yet to take action. Conference Committee action in September.
- Regional project proposals (1-page drafts) under review now by HQ National Implementation Team.
- Coastal America Principals (AAs and Assistant Secretaries) meeting 7/31 to discuss alternatives/options for FY92 funding.

QUESTIONS:

- What will Coastal America look like in FY92 & 93 if there are no Congressional appropriations?
- How can the NEP, NCW strategies, State 319 programs, and State wetlands strategies, Gulf of Mexico Program, Great Lakes Program, and Wtershed Protection Initiative be better linked with Coastal America?

POTENTIAL RECOMMENDATIONS:

- Build room in schedule for future years (assuming there are future years) for NEP management committee input to Regional project lists.

July 25, 1991

Near Coastal Waters Issues Paper

OWOW Branch Chiefs Meeting

Background

- The Near Coastal Waters Program was established as an Agency initiative in 1986 to maintain and where possible enhance the quality of near coastal waters. The term "near coastal waters" is defined as **inland waters to the head of tide, the territorial seas, and the contiguous zone, including areas of greater distance where necessary to protect coastal barrier islands and the mouths of certain estuaries. The Great Lakes are also included.**

- Near coastal waters were identified as a priority area for strategic planning due to:

  -limited understanding and focus on near coastal water environmental problems,

  -the value of near coastal waters was appreciated but the susceptibility of systems was not understood,

  -tactics were needed to solve near coastal water problems, and

  -builds upon success and momentum of Great Lakes, Chesapeake Bay, and National Estuary Program

- The "Near Coastal Water Initiative," February 1987, contains a discussion on the problem defined in coastal areas around the country.

- However, questions have been raised about how the concept of the Near Coastal Waters Program has evolved. The concern is that the Program is drifting and is danger of becoming a "slush" fund. Further, it is unclear how it relates to the NEP Program and Watershed Initiative.

Questions/Options

- How do regions assess the progress and viability of the program?

- What conceptual, procedural, and other problems do regions observe?

- Given the changes (WI, etc.) since its inception, what adjustments/clarifications should be made to the program?

- How do Regional strategies support CCMP implementation?

- How do we ensure implementation activities funded in FY 92 have some unified focus and aren't just a give away program for "pet projects"?

- The guidance for FY 91 focused on EPA water quality base program enhancement. Can that be expanded to other agencies? federal? local?

- Should regional strategies support other activities such as outreach?

- How does the NCW Strategy development and implementation process relate to the Watershed Initiative? Are these programs duplicative? How can we ensure they are not?

Recommendations

- Undertake an intensive analysis of progress/future of NCW program resulting FY92 guidance by mid-November (See Attached)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C 20460

MAR 15 1991

OFFICE OF WATER

MEMORANDUM

SUBJECT: Guidance on the Development and Implementation of Regional Near Coastal Waters Strategies in FY91

FROM: for Tudor T. Davies, Director Louise Wise
Office of Marine and Estuarine Protection

TO: David Fierra, Director
Water Management Division
EPA Region I

The purpose of this memorandum is to provide guidance on the development and implementation of Regional Near Coastal Waters (NCW) Strategies in FY91, as well as information on the allocation of FY91 NCW funds to the Regions. A planning target of $600,000 has been developed for Region I to guide development of a NCW workplan for FY91. This target includes $500,000 for Regional NCW Strategy development and implementation, as well as $100,000 for activities related to implementation of the Long Island Sound Improvement Act.

Background

The NCW Program was established as an Agency initiative in 1986 to maintain and where possible enhance the quality of near coastal waters. The NCW Program supports the goals and objectives of the Agency's National Coastal and Marine Policy, focusing on environmental problems that threaten public health, the health and survival of living resources, the coastal economy, and the enjoyment of coastal areas and resources. The Program targets coastal waters that require focused management attention, encourages managers to more efficiently use their existing regulatory authority and resources to solve problems in coastal areas, and assists Federal, state, and local officials in implementing new management techniques that will achieve measurable environmental improvement.

To date, implementation of the NCW Program has occurred on many fronts. Regions I and X have led the way in the development of regional strategies that focus resources on priority coastal problems, and the other coastal Regions are now developing their own strategies. Regions II, III, IV, VI, IX, and X are conducting NCW Pilot Projects to test innovative approaches for solving coastal problems. Regions III and IV, supported by OMEP, have held NCW Integrated Training Workshops that demonstrated the potential for applying base programs in a coordinated fashion in

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coastal areas. Additional workshops are planned for Regions V and IX in FY91. National assessments are being conducted in cooperation with NOAA to evaluate the quality of the nation's coastal waters. Finally, communications tools such as COASTLINES and COASTNET have been developed to exchange information on effective and innovative NCW techniques between coastal managers.

Regional NCW Strategies

Regional NCW Strategies have become a critical aspect of the NCW Program. The purpose of these strategies is to focus Regional efforts on correcting problems in coastal areas and integrate these activities with programs being implemented at the Federal, state, and local level. Actions outlined in the Regional NCW Strategies must support the goals and objectives of the Agency's National Coastal and Marine Policy. The strategies should assess coastal problems, and identify which of these problems will receive priority attention by the Region. The strategies should also identify geographic areas that will be targeted, as well as priority actions that will be taken in these areas by EPA in coordination with Federal, state, and local agencies.

NCW Strategies for all coastal Regions should be completed by the end of FY92. Because of the expanded resources available for the NCW Program beginning in FY91, OMEP will be reviewing Regional NCW Strategies to ensure consistency with national program goals and objectives. Part of this process will be the completion of specific guidance on the contents of Regional NCW Strategies. We began developing this guidance in FY90 when an OMEP staff workgroup generated a proposal on the overall structure of the NCW Program (attached), including recommended criteria for reviewing Regional NCW Strategies. This proposal was the subject of a meeting with Regional NCW staff held in Washington, DC in August 1990. At that time, we received substantial comments on the proposed criteria from your staff. The workgroup proposal was also distributed at the National Coastal and Marine Branch Chiefs Meeting in December 1990, and again we received many constructive comments. We will provide final guidance on strategy contents by the end of FY91. Successful completion of the guidance will require substantial Regional involvement; a schedule for completion of the guidance will be forwarded to all the Regions by mid-April.

FY91 NCW Workplans

As noted above, NCW Strategies for all coastal Regions should be completed in FY92. Once approved, we expect that the strategies will continue to evolve as Regional priorities are revisited based on new information and experience. However, while Regional NCW Strategies are being developed in FY91,

This approach is consistent with the action orientation of the NCW Program and will provide a transition in FYs91/92 from strategy development to full implementation.

The Agency's budget for FY91 includes $6.8 million for implementation of the NCW Program. Some of these funds will be used by OMEP to support national NCW Program objectives. Allocation of FY91 NCW funds to the Regions will be based on workplans developed by each Region and submitted to OMEP for review and approval. These workplans should detail activities your Region proposes to conduct in FY91 in two major categories: NCW Strategy development and implementation activities. The following general criteria should be used in developing FY91 NCW workplans:

1. The emphasis for NCW activities in FY91 should be on implementation. Therefore, a minimum of 80 percent of the total funds proposed in the workplan should be for implementation activities.

2. Up to 20 percent of the total FY91 funds can be used for activities required for the development or refinement of a Regional NCW Strategy (e.g., segmentation, assessment, identification and targeting of priority waters, identification of problems and causes, etc.)

3. Implementation activities should focus on enhancement of base programs. The FY91 workplans should stress activities that can be implemented under existing EPA or state authorities.

4. FY91 workplans should include commitments by the Regional base programs to take action in geographic areas that have been targeted by the Agency. These areas should include National Estuary Programs (all coastal Regions), Chesapeake Bay (Region III), the Great Lakes (Regions II and V), the New York Bight (Region II), the Gulf of Mexico (Regions IV and VI), and the Florida Keys (Region IV).

5. Commitments for action in FY91 from other Regional media programs in priority coastal areas should be sought only after commitments have been demonstrated by the Regional water programs.

6. Outreach to other Federal agencies, as well as outreach to the public, should not receive major focus in FY91. In addition, outreach to state programs in FY91 should be limited to enhancing existing state programs or work

be limited to enhancing existing state programs or work that will result in delegated state programs. Again, the emphasis in FY91 is on action that EPA and the states can take in priority coastal waters under existing authorities.

7. NCW funds will be awarded under Clean Water Act section 104(b)(3), therefore a minimum 5 percent nonfederal match will be required for all funds awarded to nonfederal recipients.

FY91 NCW workplans should be received by OMEP no later than April 15, 1991. This will allow time for OMEP to review the workplans, finalize Regional targets, and transfer funds to the Regions by May 1, 1991. As always, my staff is available to assist in the development of these workplans, as well as other aspects of the NCW Program.

Discussions between OMEP and Regional staffs over the past several months have resolved many issues concerning the NCW Program and identified some that require further attention. I look forward to continued cooperation in the future as we develop and implement Regional NCW Strategies that meet the goals and objectives of the NCW Program. Please contact me at FTS 382-7166, or Michelle Hiller at FTS 475-7102, if you have any questions.

Attachment

cc: Ron Manfredonia, EPA Region I
Gwen Ruta, EPA Region I
Ray Hall, EPA/OMEP

Chiefs' Meeting

Total Program Funding - $6.8 million

Headquarters Component - $680K

I. OMEP will retain 10% of the total funding for Headquarters initiatives. This funding may be applied to the following projects.

A. Provide limited support to leverage Headquarters base program initiatives of importance to coastal waters (e.g. OWEP initiatives related to CSOs and marine debris or enforcement of NPDES 403(c) and 301(h) permits, ORD marine criteria development, pesticide bioassay development, OSWER plastics and medical waste initiatives, identification of OWRS pollutants of concern, contaminated sediments, and the development of biological criteria and indicators for marine and estuarine waters).

B. Provide limited support to leverage other Federal Agency programs of importance to coastal waters. (e.g.. NOAA - NEI assessment, compliance monitoring and surveillance activities, Compass, Coastal and Ocean Framework, match CZM 309 $, Corps of Engineers dredged material analysis and permit/enforcement activities, USFWS - New coastal initiative, coastal habitat protection, public outreach, USGS surveillance and enforcement support activities, USGS - assessments in NEPs and targeted NCWs, SCS WQI - matching funds for demonstration projects in NEPs and NCWs).

C. Funding for other OMEP initiatives (e.g outreach for EPA Near Coastal Waters and National Coastal and Marine Policy activities, including such activities as marine debris initiatives, marine and coastal compliance and enforcement efforts, contaminated sediments monitoring, and management assessments.

Regional Component - $6,120,000

II. West Coast ship operations. Provide ship time for near coastal waters assessment/research cruises needed by Regions IX and X.

III. Development of Regional Near Coastal Waters Strategies

A. Regions that have not yet developed Near Coastal Waters Strategies will receive $50,000 each to complete strategy development.

- Funding will support actions needed to complete

segmentation, assessment, identification and targeting of priority waters, identification of problems and causes, and the development of action plans).

IV. Implementation of Regional Near Coastal Waters Strategies

A. Implementation. Regions with Near Coastal Waters Strategies currently in place will receive $500,000 each to begin implementing their strategies. In order to receive this implementation funding, the Region must have completed a strategy that is consistent with general guidelines and specific criteria developed by the Office of Marine and Estuarine Protection.

1. The Strategy must be based on the broad goals and objectives outlined in the National Coastal and Marine Policy.

2. The strategy must contain the following elements:

- A segmentation scheme for the Region's near coastal waters. Although coastal segments may change as additional data become available, the strategy must propose an initial segmentation scheme.

- Assessment and identification of priority problems in Regional near coastal waters, and linkage of those problems to causes.

- Identification of waters to be targeted for priority action in the Region.

- Identification of priority actions to be taken in order to address problems in targeted waters.

- The strategy must describe actions to be taken by a variety of EPA Programs as well as coordination with federal, state, and local agencies.

- The strategy must be linked to EPA's office-wide action plans for implementing the National Coastal and Marine Policy.

- The strategy must indicate how enhancement of EPA's base programs can address priority coastal problems.

- The strategy,
develop a monitoring program for assessing the effectiveness of management actions in near coastal waters.

V. Implementation of National Estuary Program CCMP Action Plans

- Regions would be eligible to submit proposals funding CCMP implementation in estuaries for which CCMPs have been completed.

- Two Regions (10 and 1) would be eligible for these funds in FY91 since the Buzzards Bay and Puget Sound CCMPs would be complete by January, 1991.

VI. Near Coastal Waters Demonstration Projects

A. All Regions would be eligible to submit proposals to OMEP for Near Coastal Waters Demonstration Projects.

- Projects would be funded competitively on the basis of: action orientation, likelihood of success, innovation, state and local commitment, 2-year time frame, public support and involvement, and relationship to identified priority themes.

- Regions would be eligible to receive funding for near coastal waters demonstration projects in NEP estuaries.

- Proposals should focus on one of the following themes: nonpoint source control, marine debris, living resource and habitat protection and/or restoration, enforcement, pollution prevention, point source control (e.g 403(c), 301(h) or industries and pollutants of concern), citizen monitoring, and sustainable development.

JOINT SESSION: OCPD - AWPD - REGIONS ROUNDTABLE

Objective of Session: Overview of each of the OCPD and AWPD programs and opportunities for integration and assistance.

Possible Topics:

- o CZM-NEP-NCW-NPS interface issues
  - Boundary modifications and relationships to NEP/enforceable measures
  - Joint position with NOAA on related issues NPS management measures; status of document; next steps re revisions and additions
- o ODES during and after STORET modernization
- o Environmental indicators
- o Watershed Initiative and targetting priority water bodies
- o Potential areas for integration/coordination
  - TMDL Workshops
  - NPS Coordinators Meeting
  - NEP Coordinators Meeting
  - Monitoring Coordinators Meeting
  - Integrated OW Regional Training
  - Local Governments Workshops
  - Newsletters

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JOINT SESSION WETLANDS AND COASTAL DIVISIONS
ISSUE PAPER
OWOW Branch Chief Meeting

Time: August 1, 1991, 1:00 - 2:00 pm

ISSUE STATEMENT:

- Coordination and communication should be enhanced between wetland and coastal activities. Improved coordination can help identify and target areas of mutual interest and focus the resources and expertise of each Division.

BACKGROUND:

- Wetland protection and habitat loss have been identified as a priority problem in many coastal areas. As a result coastal management activities often support wetland protection. For example, many of the National Estuary Programs (NEP) conduct special action projects, or Action Plan Demonstration Projects involving wetlands and habitat protection/enhancement. The NEP Comprehensive Conservation and Management Plans (CCMPs) will likely contain wetland components. Each CCMP should receive a thorough review by the wetland program when submitted to Headquarters for approval/review.

- The Near Coastal Waters (NCW) Program involves broad ranging and long term wetland projects and planning, therefore coastal wetland protection is an essential element of the NCW Strategies developed by the Regions. For example, the Region 9 NCW Strategy contains a Wetland Mitigation Banking component as part of their California State Wetlands Conservation Plan, along with a Pearl Harbor Wetlands Restoration Project, and Wetlands Advanced Identification (ADID) for Southern California. Coordination at both Headquarters and Regions on such projects is imperative to maximize the success of the projects.

- Another area of overlap in both Divisions is stormwater. While coastal states are preparing to implement the new stormwater regulations, many are exploring the viability of using wetlands as part of the stormwater treatment train. This will require teamwork to ensure technical adequacy of proposed treatment techniques.

RECOMMENDATIONS:

- Identify key points of contact from Wetlands and OCPD.

- Identify appropriate process/mechanism to ensure effective coordination.

- Identify cross program outreach to promote coastal wetland protection.

OCEAN DUMPING ISSUES PAPERS

NATIONAL BRANCH CHIEFS' MEETING

CHARLOTTESVILLE, VA

AUGUST 1, 1991

STATUS OF GREEN BOOK

OCEAN DUMPING SITE MANAGEMENT

NATIONAL MARINE SANCTUARY MANAGEMENT PLANS
AND DREDGED MATERIAL DISPOSAL SITES

CZMA CONSISTENCY AND OCEAN DUMPING
SITE DESIGNATIONS

LONG-TERM MANAGEMENT OF DREDGED MATERIAL

ISSUE PAPER

FOR THE BRANCH CHIEFS' MEETING

OCPD SESSION

AUGUST 1, 1991

Time: 3:00 pm Topic: National Marine Sanctuary Management Plans and Dredged Material Disposal Sites

ISSUE:

Under the national marine sanctuary management plans developed in the EIS process, NOAA proposes to exert regulatory oversight of MPRSA permit programs (a Corps of Engineers and EPA function under MPRSA) and those authorized through other legislation, such as the Clean Water Act. The process would require other agencies to adopt permit conditions proposed by NOAA in order for that permit to be "certified" for that sanctuary.

BACKGROUND:

Under the Marine Protection, Research, and Sanctuaries Act, NOAA has responsibility for designating marine sanctuaries. The designation process includes an EIS and publication of a management plan for the sanctuary in the Federal Register. For two of these sanctuaries, the Stellwagen Banks in Region I and Monterey Bay in Region IX, NOAA believes that additional oversight of permit activity in and near the sanctuary will increase protection of sanctuary resources. EPA does not agree and argues that NOAA should define clear goals and defend its legal authority to impose permit conditions. NOAA would like to develop individual MOU's for each sanctuary, involving all regulatory agencies' activities and specifying NOAA's "certification" rights for each activity.

QUESTIONS/OPTIONS:

RECOMMENDATIONS FOR FUTURE ACTION:

When working with NOAA on marine sanctuary management plans, EPA should insist that NOAA clearly define its legal framework for the MOA, develop resource protection goals for the sanctuary, list alternatives for complementary regulatory programs, and hold an early meeting of all potential interested agencies to discuss interagency coordination.

ISSUE PAPER

FOR THE BRANCH CHIEFS MEETING

OCPD SESSIONS

AUGUST 1, 1991

Time: 4:00 Topic: Marine Debris

ISSUE STATEMENT

Marine debris has environmental, aesthetic and economic impacts. EPA needs to develop and implement a coordinated program to control the release of debris to our nations waterways.

BACKGROUND

In 1988 an inter-agency Task Force published a report regarding the sources and effects of marine debris and presented several recommendations that the US should follow to control this type of pollution. Since then, OCPD, the Regions and other Federal Agencies have been working on programs to control, assess, and educate the public about marine debris. OCPD is in the process of using the recommendations in the 1988 report as the foundation of a new document which will describe how the recommendations have been implemented to date, and to set forth a national strategy for implementing the recommendations in the future. This national strategy will then be used by EPA to develop action plans for future program activities.

QUESTIONS/OPTIONS

RECOMMENDATIONS FOR FUTURE ACTION

OCPD should develop a draft strategy for review by the Regions and other Federal Agencies, and prepare a final strategy based upon the comments received.

OCPD and the Regions should then conduct a marine debris coordinators meeting and develop action plans.

ISSUE PAPER

FOR THE BRANCH CHIEFS' MEETING

OCPD SESSION

AUGUST 1, 1991

Time: 3:00 pm Topic: Ocean Dumping Site Management

ISSUE STATEMENT:

EPA is responsible for management of over 100 ocean dumping sites located on all three coasts of the United States. This task is complicated by the wide variety of ecosystems involved, the expense of offshore field work, and the need for cooperation and coordination with the Corps of Engineers on most of these sites.

BACKGROUND:

In an effort to pull together all aspects of site management into one document, OCPD is developing a site guidance document for the Regions. In general, the document lays out the framework and specific activities for site management. It describes the regulatory as well as technical aspects of site management and proposes a mechanism for coordination between EPA and the CE.

Two drafts of this document have been circulated for review, with the next version expected in the fourth quarter.

QUESTIONS/OPTIONS:

What areas do the Regions need more specific guidance on within the framework of ocean dumping site management?

What is the role of HQ in the management of dredged material sites?

RECOMMENDATIONS FOR FUTURE ACTION:

OCPD needs to develop a stronger role in site management, implementing a national strategy to monitor and manage dredged material sites.

OCPD needs to hold a national meeting on site management options for the Regions.

ISSUE PAPER

FOR THE BRANCH CHIEFS' MEETING

OCPD SESSION

AUGUST 1, 1991

Time: 3:00 pm Topic: Long-Term Management of Dredged Material

ISSUE STATEMENT:

The evaluation of dredged material disposal options for a particular project must take into account all alternative disposal options and, to make the process proceed more smoothly, a longer time frame for implementing each option. Options need to include ocean disposal, in-bay and estuary, and upland disposal.

BACKGROUND:

In January 1991, the EPA and CE hosted a national conference on how dredged material disposal options could be evaluated on a geographically-defined basis and would also include longer time frames for use of the selected options. Beneficial uses of dredged material was a major topic.

Beginning a new project without reasonable assurance that the project will be maintained is not in the best public interest. An LTMS approach will include all foreseeable new work, operations and maintenance dredging, and permit activities. The LTMS should also cover the expected life of the project and include all beneficiaries of the project as well as Federal, State, local and environmental interests. The LTMS will address both structural and non-structural alternatives, as well as all options, including beneficial uses. An LTMS will be timely, technically feasible, cost-effective, and environmentally acceptable.

QUESTIONS/OPTIONS:

Should pilot LTMS projects be initiated in selected Regions to serve as national models?

Are more regional meetings such as the national conference needed prior to initiation of pilot projects?

RECOMMENDATIONS FOR FUTURE ACTION:

The LTMS approach is a sound approach for regulatory agencies involved with dredged material disposal in many parts of the country. The LTMS approach should be nourished and encouraged where it is attempted.

ISSUE PAPER

FOR THE BRANCH CHIEFS' MEETING

OCPD SESSION

AUGUST 1, 1991

Time: 3:00 pm Topic: Status of Green Book

ISSUE STATEMENT:

In 1991 the Ocean Dumping Testing Manual (Green Book) for dredged mateials was published. The ocean dumping regions will phase in implementation of the new Green Book through development of regional manuals.

BACKGROUND:

Since publication of the draft national guidance manual in early 1990, many comments were received and incorporated into the final document. In addition, five general training sessions on the draft manual were held in the summer of 1990, which introduced States, other Federal agencies, and contractors to the substantive changes in this new manual over the 1978 version of the manual. Tiering the testing regime and the requirement for amphipod tests on the dredged material were the major changes from the old manual.

At the Monterey, CA, ocean dumping coordinators' meeting in February of 1991, agreement was reached among EPA and Corps of Engineers program staff that the use of the new manual would be phased in by the end of the fiscal year. The phase in would be accomplished through development of regional manuals.

QUESTIONS/OPTIONS:

How are the Regions coming on development of these manuals and where are the problem areas that need attention?

RECOMMENDATIONS FOR FUTURE ACTION:

OCPD should develop help the regions as they develop these regional manuals.

OCPD and the Regions should hold a national meeting on implementation of the manuals early in the next fiscal year.

ISSUE PAPER

FOR THE BRANCH CHIEFS' MEETING

OCPD SESSION

AUGUST 1, 1991

Time: 3:00 pm Topic: CZMA Consistency and Ocean Dumping Site Designations

ISSUES:

The States of Louisiana and Florida have recently indicated objections to ocean dumping site designations under their approved Coastal Zone Management Plans. They argue that clean dredged material should be used for beach nourishment or creation of wetlands and that by designating ocean dumping sites, the cheaper ocean option facilitates selection of ocean disposal over beneficial uses options.

BACKGROUND:

At present four ocean dumping site designation actions in Louisiana and one in Florida are impacted by State objections under CZMA. EPA argues that site designation in itself does not pre-condition use of the site or authorize disposal. Placement of dredged material for benefical uses as opposed to ocean disposal often requires different equipment and longer haul distances, resulting in increased costs. The issue essentially revolves around who will pay for the cost increase, an argument more appropriately focused on the State and the Corps. The Water Resources Development Act addresses the issue by calling for a 25 or 50% State or local share of the increased cost.

QUESTIONS/OPTIONS:

What have been the experiences of other Regions with CZMA consistency for MPRSA site designations?

RECOMMENDATIONS FOR FUTURE ACTION:

Because this issue involves wetlands, it will remain a high visibility problem. Ocean dumping site designation EIS's will need to be more comprehensive in evaluation of alternatives and concensus-building early in the process. The application of an LTMS approach in controversial areas should be investigated.

9a

ISSUE PAPER

FOR THE BRANCH CHIEFS' MEETING

OCPD SESSION

AUGUST 1, 1991

Time: 3:00 pm Topic: Long-Term Management of Dredged Material (LTMS)

ISSUE STATEMENT:

The evaluation of dredged material disposal options for a particular project must take into account all alternative disposal options and, to make the process proceed more smoothly, should provide for ealy involvement for all interested parties. Options need to include ocean disposal, in-bay and estuary, and upland disposal. For controversial projects, the CE has developed an LTMS approach which emphasizes consideration of the available options with a view toward assuring long-term (up to 50 years) colutions to disposal problems.

BACKGROUND:

In January 1991, the EPA and CE hosted a national conference on how dredged material disposal options could be evaluated on a geographically-defined basis with attention to developing long-term disposal options. Beneficial uses of dredged material was a major topic.

Beginning a new project without reasonable assurance that the project will be maintained over the long term is not in the best public interest. An LTMS approach includes all foreseeable new work, operations and maintenance dredging, and permit activities. The LTMS should cover the expected life of the project and include all beneficiaries of the project as well as Federal, State, local and environmental interests. The LTMS addresses both structural and non-structural alternatives, as well as all options, including beneficial uses. The goal of an LTMS is to provide timely, technically feasible, cost-effective, and environmentally acceptable solutions for management of dredged material.

QUESTIONS/OPTIONS:

Should pilot LTMS projects be initiated in selected Regions to serve as national models? How could LTMS's be addressed through NEP's or NCW's?

Are more regional meetings such as the national conference in LTMS helpful?

RECOMMENDATIONS FOR FUTURE ACTION:

The LTMS approach is a sound approach for regulatory agencies involved with dredged material disposal in many parts of the country. OCPD and the Regions should work together to help identify projects which might benefit from an LTMS approach.

9b

ISSUE PAPER

FOR THE BRANCH CHIEFS' MEETING

OCPD SESSION

AUGUST 1, 1991

Time: 3:00 pm Topic: Status of Green Book

ISSUE STATEMENT:

In 1991 the Ocean Dumping Testing Manual (Green Book) for dredged materials was published. The ocean dumping regions will phase in implementation of the new Green Book through development of regional manuals.

BACKGROUND:

Since publication of the draft national guidance manual in early 1990, many comments were received and incorporated into the final document. In addition, five general training sessions on the draft manual were held in the summer of 1990, which introduced States, other Federal agencies, and contractors to the substantive changes in this new manual over the 1978 version of the manual. Tiering the testing regime and the requirement for amphipod tests on the dredged material were the major changes from the old manual.

At the Monterey, CA, ocean dumping coordinators' meeting in February of 1991, agreement was reached among EPA and Corps of Engineers program staff that the use of the new manual would be phased in by the end of the fiscal year. The phase in would be accomplished through development of regional manuals.

QUESTIONS/OPTIONS:

How are the Regions coming on development of these manuals and where are the problem areas that need attention?

RECOMMENDATIONS FOR FUTURE ACTION:

OCPD should help the regions as they develop these regional manuals.

As part of the Pensacola training session (August 5-9), a half day has been set aside to discuss regional manuals.

OCPD and the Regions should include discussion of the manuals as part of the ocean dumping coordinators' meeting next year.

9c

ISSUE PAPER

FOR THE BRANCH CHIEFS' MEETING

OCPD SESSION

AUGUST 1, 1991

Time: 3:00 pm Topic: CZMA Consistency and Ocean Dumping Site Designations

ISSUES:

The States of Louisiana and Florida have recently indicated objections to ocean dumping site designations under their approved Coastal Zone Management Plans. They argue that clean dredged material should be used for beach nourishment or creation of wetlands and that by designating ocean dumping sites, the cheaper ocean option facilitates selection of ocean disposal over beneficial uses options.

BACKGROUND:

At present four ocean dumping site designation actions in Louisiana and one in Florida are impacted by State objections under CZMA. Site designation in itself is not a pre-condition to CE permit issuance nor does it authorize disposal. Placement of dredged material for beneficial uses as opposed to ocean disposal often requires different equipment and longer haul distances, resulting in increased costs. The issue essentially revolves around who will pay for the cost increase, an argument really between the State and the Corps. The Water Resources Development Act addresses the issue by calling for a 25 or 50% State or local share of the increased cost.

QUESTIONS/OPTIONS:

What have been the experiences of other Regions with CZMA consistency for MPRSA site designations?

RECOMMENDATIONS FOR FUTURE ACTION:

Because this issue involves wetlands, it will remain a high visibility problem. Ocean dumping site designation EIS's should seek consensus-building early in the process. The application of an LTMS approach in controversial areas should be investigated.

9d

ISSUE PAPER

FOR THE BRANCH CHIEFS' MEETING

OCPD SESSION

AUGUST 1, 1991

Time: 3:00 pm Topic: National Marine Sanctuary Management Plans and Dredged Material Disposal Sites

ISSUE:

Under national marine sanctuary management plans developed for some sanctuaries in the EIS process, NOAA has proposed to exert regulatory oversight of MPRSA permit programs (a Corps of Engineers and EPA function under MPRSA) and those authorized through other legislation, such as the Clean Water Act. The process would require other agencies to adopt permit conditions proposed by NOAA in order for that permit to be "certified" for that sanctuary.

BACKGROUND:

Under the Marine Protection, Research, and Sanctuaries Act, NOAA has responsibility for designating marine sanctuaries. The designation process includes an EIS and publication of a management plan for the sanctuary in the Federal Register. For two of these sanctuaries, the Stellwagen Banks in Region I and Monterey Bay in Region IX, NOAA believes that additional oversight of permit activity in and near the sanctuary will increase protection of sanctuary resources. EPA has argued that NOAA should define clear goals and defend its legal authority to impose permit conditions. NOAA would like to develop individual MOU's for each sanctuary, involving all regulatory agencies' activities and specifying NOAA's "certification" rights for each activity.

QUESTIONS/OPTIONS:

How can EPA and NOAA work together to resolve those concerns while still preserving the statutory roles assigned to each agency?

RECOMMENDATIONS FOR FUTURE ACTION:

When working with NOAA on marine sanctuary management plans, EPA should insist that NOAA clearly define its role in and develop specific resource protection goals for the sanctuary. A framework for achieving inter-agency coordination on actions affecting the sites and the sanctuaries should be developed, giving recognition to the primary roles played by EPA and the CE regarding permitting and site designation.

9e

ISSUE PAPER

FOR THE BRANCH CHIEFS' MEETING

OCPD SESSION

AUGUST 1, 1991

Time: 3:00 pm Topic: Ocean Dumping Site Management

ISSUE STATEMENT:

EPA is responsible for management of over 100 ocean dumping sites located on all three coasts of the United States. This task is complicated by the wide variety of ecosystems involved, the expense of offshore field work, and the need for cooperation and coordination with the Corps of Engineers on most of these sites.

BACKGROUND:

In an effort to pull together all aspects of site management into one document, OCPD is developing a site guidance document for the Regions. In general, the document will lay out the framework and specific activities for site management. It describes the regulatory as well as technical aspects of site management and proposes a mechanism for coordination between EPA and the CE.

Two drafts of this document have been circulated for review, with the next version expected in the fourth quarter.

QUESTIONS/OPTIONS:

What areas do the Regions need more specific guidance on within the framework of ocean dumping site management?

How can HQ assist the Regions in the management of dredged material sites?

RECOMMENDATIONS FOR FUTURE ACTION:

The program needs to develop a stronger role in site management, implementing a national strategy to monitor and manage dredged material sites.

Discussion of site management issues should continue to be on the agenda for the ocean dumping coordinators' meetings.

OCPD should continue working with the CE to amend the national MOU to better address site management.

(10)

ISSUE PAPER

FOR THE BRANCH CHIEFS MEETING

OCPD SESSIONS

AUGUST 1, 1991

Time: 4:00 Topic: Marine Debris

ISSUE STATEMENT

Marine debris has environmental, aesthetic and economic impacts. EPA needs to develop and implement a coordinated program to control the release of debris to our nations waterways.

BACKGROUND

In 1988 an inter-agency Task Force published a report regarding the sources and effects of marine debris and presented several recommendations that the US should follow to control this type of pollution. Since then, OCPD, the Regions and other Federal Agencies have been working on programs to control, assess, and educate the public about marine debris. OCPD is in the process of using the recommendations in the 1988 report as the foundation of a new document which will describe how the recommendations have been implemented to date, and to set forth a national strategy for implementing the recommendations in the future. This national strategy will then be used by EPA to develop action plans for future program activities.

QUESTIONS/OPTIONS

How can the marine debris program effectively work to develop control measures for marine debris?

RECOMMENDATIONS FOR FUTURE ACTION

OCPD should develop a draft strategy for review by the Regions and other Federal Agencies, and prepare a final strategy based upon the comments received.

OCPD and the Regions should then conduct a marine debris coordinators meeting and develop action plans.

(11)

Issue Paper: Making the ANDERSON Count

JUL 25 1991

Time 8:30 - 9:00, Friday

Topic Making the ANDERSON Count

Issue How can the ANDERSON better support Regional decision-making?

Background The Ocean Survey Vessel (OSV) Peter W. ANDERSON is EPA's primary survey vessel for ocean monitoring and site designation field studies. Surveys aboard the ANDERSON are performed as part of EPA's overall strategy to determine appropriate locations for disposal of ocean-dumped materials and to monitor those materials once disposed into the ocean environment. Although ANDERSON survey results have had some impact on program decision-making, those impacts have not been well publicized. The link from survey data to decision-making has not been made very well in the past. Overall awareness of the ANDERSON and its activities is somewhat limited.

Questions

- Should we broaden the use of the ANDERSON to include other programs (e.g., NCW, NEP)?
  - *By instituting a 2-3 year survey schedule.*
  - *Integrate ocean dumping activities with NCW activities.*
- How can we make more efficient use of the ANDERSON?
- How can we set Agency priorities for using the ANDERSON?
  - *Assuring Regional equity.*
  - *Use based on risk.*
- How can we increase public awareness of coastal and marine issues?
  By supporting public outreach activities sponsored by the ANDERSON.
- How can we link ANDERSON survey results to program decision-making?
  By packaging Regional survey reports into an accomplishments reports which links results to program objectives and decisions.

Recommended Actions EPA Management should encourage ANDERSON users (including EPA Regions and laboratories) to take advantage of the ship as a scientific, outreach, and decision-making tool. This may include:

- Forwarding ANDERSON survey reports to Headquarters and take advantage of revised protocols;
- Identifying long-term Regional needs for the ANDERSON;
- Considering alternative uses for the ANDERSON;

- Exchanging appropriate scientific data, technical information, and survey accomplishments as often as possible;
- Using ANDERSON outreach efforts to educate the public on marine and coastal issues;
- Participating in tech transfer discussions at the upcoming National Ocean Survey Meeting; and/or
- Providing input on more effective ways of using the ANDERSON.

(12)

JUL 25 1991

Time: August 2, 1991, 9:00 AM **Topic:** Public Outreach

Issue Statement: OCPD/OWOW is assessing its current outreach efforts and mechanisms and developing strategies to improve and expand these activities. OCPD needs input from the Regions on our past outreach performances and where and how we can improve on these areas.

Background: Increased attention and effort is being directed toward improving our methods of communicating and informing the public and other government agencies of OWOW/OCPD programs and what EPA is doing in the marine and coastal environment. In the past, OCPD has implemented outreach efforts on an ad hoc basis with each program designing its own needs and approach. Now, however, OCPD wants to develop a more organized outreach process to more effectively produce and disseminate our program information. In order to do this, OCPD needs to get feedback on Regional outreach needs and issues, including determining the role of outreach and how to most effectively use our resources to support outreach activities.

Questions/Options

Are we addressing/reaching the correct audiences?

This is dependent on individual programs; however we need to focus more attention on targeting the appropriate audience(s), the needs of the audience(s), <u>and</u> the <u>message</u> we are trying to convey.

Has our outreach been effective? Are we giving the Regions/Congress/public what they need?

"Outreach" encompasses many actions. These include, explaining programs, effecting a behavioral change, education of basic principles, provide training. Outreach <u>tools</u> include videos, publications, exhibits, conferences. We need to distinguish between the two and encourage programs to develop strategic planning strategies which will direct our efforts. The strategy should tie outreach activities to mission, goals, and program objectives and specify which tools will be used for each particular action. The strategic plan should also include mechanisms for feedback/evaluation to determine our effectiveness.

What are the impediments to outreach?

Insufficient time and resources. Ill defined protocols or changing policies and procedures. Lack of strategic planning. Too long a review and approval process. Poor distribution system.

Recommendations: Issues to be resolved are responsibility of multimanagement levels. On a divisional level: Do strategic planning to prioritize activities and target resource needs. Ensure funding for outreach activities -- specify outreach activities in

yearly agenda. Coordinate outreach activities within Office/Division as much as possible. Develop process or system for production (graphics, editing, printing, etc) and distribution.

Office of Wetlands, Oceans and Watersheds

Outreach Activities

Summer 1991

Division	What/How	Why	With Whom	When
Wetlands Division	**"Adopt a Wetland Program"** Publicize through brochure, buttons, display Carry out through cooperative agreements	Promote wetland protection on an individual basis --building to a watershed basis	General public Landowners/Planners Educators/Students Community Groups	Ongoing
	Hotline Toll-free phone, distribution, and feedback system	Provide answers to questions and access to information	General Public Developers Landowners Government Officials Educators/Students	Ongoing
	Hotline Workbook	Training and updates	Hotline operators	Under development
	American Wetlands Month Flyer Fact Sheets Sample PSA Events	Increase public awareness of importance of wetlands and interest in protection	General Public Environmental Groups Government (all levels) Development Groups	Annually
	Guide to wetland education programs, training, and materials	Provide access to existing information	Educators	Summer 1991
	Reading list K-12		Students	Under development
	Wetlands Contact Book	Foster communication–provide information on who does what in wetland protection	Agencies (all levels) Other Interested Parties	Update as needed
	Survey	Assess "customer" needs and our performance	Regions	Annually
	Catalog of State Wetlands Protection Grants Thumbnail sketches of programs funded by Federal assistance	Increase awareness, provide models, publicize grants	State, Tribal and Local agencies	Annually

Div	What/How	Why	With Whom	When
Assessment and Watershed Protection Division	**Publications/Training** Technical information related to Clean Lakes and Nonpoint Source	Provide information on technical practices, legal requirements, monitoring	State and local government Community leaders Educators Consultants Congress	Ongoing
	Clean Lakes Clearinghouse	Provide access to Information on significant publications, bibliographies -- through disk or electronic bulletin board	Individuals in need of technical information on lake restoration and protection	Ongoing
	Information Exchange "News Notes" Electronic bulletin board Bibliographies	Provide access to technical and non-technical information on Nonpoint Source (NPS) issues, programs, and opportunities by mail, fax, phone	Individuals interested in NPS pollution	Ongoing
	Exhibits/Publications	Provide information and stimulate interest and involvement in volunteer monitoring (streams, rivers, lakes)	Citizens Environmental Groups States	Periodically
	Bulletin on Surface Water Assessment	Provide technical and programmatic information, report study and monitoring results	State and EPA Monitoring and Assessment Staff	Monthly
	Summary of Water Quality Data	Provide Information on Water Quality/Status	State, Local Water Quality Management staff, Decision makers, Environmental Groups General Public and Industry	Biennial
	Grants	Support Regional and State Nonpoint Source pollution control	Regional and State Agencies	Annually

Division	What/How	Why	With Whom	When
Ocean and Coastal Protection Division	**Reports/Guidances/Fact Sheets** Technical information ocean dumping, marine debris, NEP, etc.	Provide information on technical practices, legal requirements, monitoring results	State/local govt./NEPs Resource mgt. agencies Consultants Trade Associations Congress	As needed or required
	"Coastlines" Newsletter	Provide thematic overview coastal/estuarine issues, programs, and National Estuary Program (NEP) operation	NEPs Resource mgt. agencies	Bimonthly
	"Coastnet" Electronic bulletin board	Provide access to information--update on coastal/estuarine issues and programs	NEPs Resource mgt. agencies Region/State staff	Ongoing
	Non-technical Materials Curricula/Activities Brochures/Booklets/Fact sheets Videos Exhibits/Posters	Provide Information on OCPD and related programs Stimulate interest in OCPD issues	General public Teachers/students	As needed
	Public Participation Beach Cleanup/Anderson	Learn about coastal problems through direct experience Increase awareness of coastal issues and EPA role	Press General public Teachers/students	Periodically
	Media Events Public appearances /Speeches Interviews	Increase awareness of coastal issues and EPA role	Press/General public Decision makers	As Appropriate
	Benchmarking Identify non-EPA programs and materials, Adopt as models and Distribute IAG w/FWS and Chesapeake Bay	Provide Information on OCPD and related programs Stimulate interest in OCPD issues	General public Teachers/students Local government	Under Development

Division	What/How	Why	With Whom	When
Ocean and Coastal Protection Division	**ODBA Bulletin**	Provide information on ocean dumping/marine debris issues and programs	Resource mgt. agencies Region/State staff	Periodically
	Workshops Technical and non-technical e.g. orientation, consensus bldg.	Provide training and information exchanges on coastal issues and practices	Regions NEP Committees (Finance, Management, Citizen's Advisory) Other targeted audiences	Periodically
	Informal Network Phone calls/Meetings	Connect people with common needs and concerns providing information on coastal issues, programs, and opportunities	Federal, state, and local govt. staff with ripple effect to managers	Informal, as needed
	Survey	Assess "customer" needs and our performance	Regions	Annually

Coastal Pollution Workshops

Branch Chiefs Meeting, August 2, 1991

Issue Statement

The Regions have expressed the need for high visibility workshops to promote coastal issues and understanding.

Background

In November 1990, a group of Regional Administrators expressed interest in hosting public meetings/workshops with the involvement of the Administrator. These workshops were intended to give the Administrator the opportunity to meet with State and local representatives with the possible inclusion of the public to highlight or reinforce national coastal issues.

A request went to the Administrator from Region 2 for a workshop on Long Island sound in September. The Administrator's office denied the request based on Reilly's busy schedule in the late summer/early fall.

Questions / Options

o Are regions still interested in hosting public workshops on coastal issues?

o What are some other techniques to get broad visibility on coastal issues?

o Do the Regions need support from Headquarters for this type of outreach?

OSV PETER W. ANDERSON

Branch Chief's Meeting, August 2, 1991

Issue: Increase government and public awareness of the importance of scientific activities of the OSV ANDERSON.

Background: The ANDERSON serves as the major sampling platform for estuarine and ocean oceanographic activities. The data collected on the ANDERSON assists in evaluating governmental pollution control efforts. However, during a public outreach effort it became evident that the ship's mission and accmplishments are not sufficiently known by the general public or other offices within EPA.

A strategic planning process was used to develop a five year operational program together with a public education effort for the OSV ANDERSON. The plan defines the ANDERSON's mission along with the specific course of action designed to increase public and governmental awareness and effectively use the scientific information compiled by the ANDERSON. The following are examples of some of the outreach activities accomplished under this strategic plan:

- Public tours aboard the ANDERSON in various coastal cities including Norfolk, VA; Philadelphia, PA; New York, NY.

- Demonstration surveys with the press and teachers groups in Baltimore, MD and Norfolk, VA.

- Good Morning America news story.

- Display boards and pamphlets describing the ANDERSON.

- Educational materials in production including coloring book and activity book.

- Videos on the ANDERSON and its accomplishments.

Issue: National Beach Cleanup

Background:

Beach cleanups have been coordinated nationally since 1988, as part of the annual Coastweeks celebration. For the past two years, extensive marine debris education campaigns have been conducted for beachgoers, boaters, fishermen. merchant shippers and other marine user groups. Every year regional coordinators in each beach area organize extensive public relations campaigns to recruit volunteers and educate the public about the problems caused by trash in the marine environment. The news about beach cleanups has been so extensive that in 1990 four countries joined in the effort, Canada, Guatemala, Japan and Mexico. The 1990 National Beach cleanup had more than 108,749 volunteers participating in 23 U.S. coastal states, the District of Columbia, three inland states, and U.S. territories, who removed more than 260 million pounds of trash.

Purpose:

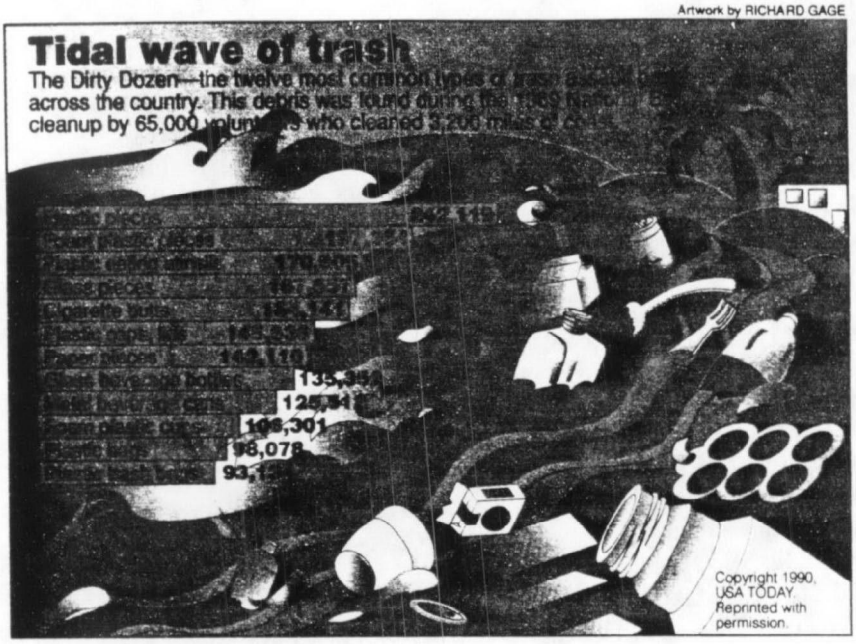
This year, the EPA headquarters (OW/OWOW/OCPD) is working in conjunction with the Center for Marine Conservation and the U.S. Coast Guard, to hold their annual beach cleanup at Bethany Beach in Delaware. Participants will not only clean the beach, but use data cards to classify the types of debris found, as well as recycle a large portion of the trash collected. The date is set for Saturday, September 21, 1991, with a bus leaving from the EPA headquarters at 6:00 a.m.. Participants last year included Administrator William Reilly and Assistant Administrator for Water, LaJuana Wilcher. For more information call FTS 8-245-3904.

Coastal Connection

The Coastal Connection is a newsletter produced by the Center for Marine Conservation (CMC) to promote beach cleanup events, "Citizen Pollution Patrols," and other efforts to eliminate marine debris that injures wildlife, fouls our beaches and threatens boater saftey.

America's Beaches Still Awash with Trash

Artwork by RICHARD GAGE



The release in May of the final results of the 1989 National Beach Cleanup, created a great deal of press attention about trash on our nation's beaches. The report, entitled *Cleaning North America's Beaches: 1989 Beach Cleanup Results*, includes state-by-state information about the types and amounts of trash that was found. And although the 1989 cleanups took place nine months after Annex V of MARPOL took effect (Annex V bans the dumping of plastic by ships at sea), the report shows that the beach debris problem has remained relatively unchanged. Below are some highlights of the report.

- Volunteers in 25 coastal states and parts of Canada and Mexico removed and catalogued 3,000,000 items of trash that weighed 861 tons from 3,000 miles of beach.
- Plastic is still the most prevalent debris type, accounting for 63% of the trash collected. In Mexico and Canada 62% of the trash was plastic, signaling that the problem is not limited to the United States.
- The twelve most common items reported - the Dirty Dozen of 1989 - remained relatively unchanged from 1988 (see chart).
- The states with the largest percentage of bottles and associated goods on their beaches (Virgin Islands, NJ, GA, Puerto Rico) do not have beverage container deposit laws.
- The highest amounts of six-pack rings were found in Texas and Washington, two states that do not have legislation that require six-pack rings to be degradable.
- Volunteers are getting good at identifying sources. Several maritime industry groups were namedas souces of specific trash items.
- The most common debris items related to fishing and boating were pieces of plastic rope and plastic fishing line. Both items can kill marine animals by entanglement or ingestion. Four hundred and sixty-seven miles of fishing line was collected off the Florida coastline alone.
- Volunteers identified trash from 13 cruise lines with Florida receiving the brunt of the damage. Cruise ship trash is readily identifiable because these items are often embossed with the company name.
- In relation to other types of trash, there were few syringes and other medical waste found.
- More than 2,000 foreign label items were reported and at least 55 countries identified. Foreign debris was found in 21 of the 25 states with the largest number of foreign items in Texas.
- There were 65 reports of wildlife entanglement, including 25 birds caught in fishing line.

Realistically, a dramatic change in the type of trash was not expected just nine months after Annex V took effect. But, certain trends are apparent, such as the persistence of plastic and the concentration of offshore generated wastes on beaches in the Gulf of Mexico, the North Pacific, and New England -- if a decrease in the amount of plastics does occur because of Annex V, it will be most evident in these areas.

Copies of the report are available for $10.00 from CMC's DC office. All volunteers who participated in the 1989 cleanup may obtain a copy for only $3.00.

Navy Says It's the Right Thing to Do

Plastics recycling and new equipment will be key for the U.S. Navy to comply with the mandate to eliminate the discharge of plastics from their ships. A loophole in MARPOL Annex V, the international treaty that prohibits the dumping of plastics from ships at sea, exempts public vessels. But the law that implements MARPOL in the U.S. waters is tougher than the international treaty and requires that public vessels such as the U.S. Navy and the Coast Guard comply with all requirements of Annex V by December 31, 1993. The requirements for all private vessels, from surfboards to oil tankers, have been in place since December 31, 1988.

It is no small task for the Navy to separate, store, and offload the plastic trash generated by every ship each day. A single aircraft carrier with 5,000 men aboard could produce 1,000 pounds of plastic every 24 hours. To deal with these enormous quantities of trash, the Navy is educating its crew, inventing equipment, and developing new operating procedures to keep plastic trash out of the ocean.

Since January 1989 the Navy has been able to eliminate 70 percent of all plastics it dumps into the ocean simply by separating plastic from all other trash. All shipboard work spaces now have an additional green trash can marked **Plastics Only** in red letters. All of the plastic that is not associated with food remains on board for at least 20 days or longer, as space allows. Plastic trash that has been in contact with food is held for the last three days at sea. After three days the odor is both unpleasant and a health hazard.

The shipping industry can learn from the Navy's extensive work to keep plastics out of the marine environment.

A demonstration program currently in progress aboard the *U.S.S. Lexington* is exploring ways to recycle all plastic waste generated aboard the ship which currently goes to a landfill. All plastic trash generated aboard the *Lexington* will be brought to shore and sent to two separate recycling facilities. The plastic will be used to manufacture lumber for park benches, marine pilings and forklift pallets. The Navy will display these products at selected facilities to demonstrate the importance of recycling efforts. A report of the *Lexington* project will be completed in November 1990.

The Navy is also testing the effectiveness of several new pieces of trash handling equipment including compactors, pulpers, and a plastic waste processor. The plastic waste processor can reduce the 1,000 pounds of plastic generated to several plastic disks the size of a Frisbee.

The Navy believes that education and training are key to the success of their program. Several incentive programs educate the crew about the ship's plastics program. For example, the winner of a shipboard poster contest about the plastics problem will receive 96 hours of leave time. In 1989 the Navy distributed 5,000 information packets about the problems of that plastics can cause to marine life. As a result, the sailors are willing to make an extra effort to separate their trash.

"Education is the key to the whole operation. There is a need to create a mindset that keeping plastics out of the water is the right thing to do."

Commander Rick Arllen, Supply Officer U.S.S. Lexington

Data Detectives

During the 1990 National Cleanup volunteers will identify the "bad guys" that dump trash into the ocean. Armed with a revised CMC data card, cleanup participants will pay close attention to any information about the source of trash items (for example a cruise line name or foreign writing). The revised data card explains the need to identify sources in order to stop illegal or accidental dumping. The Coast Guard will use photos of trash items taken by volunteers as evidence necessary to prosecute violators.

It's Expensive to Dump

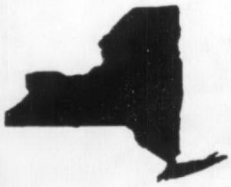
In May the U.S. Coast Guard assessed a $12,500 penalty against the *Handy Mariner* for illegal dumping of plywood about four miles off Cape Ann, Massachusetts. Fishermen reported the violation after they witnessed the dumping which caused some damage to their vessel. The crew admitted dumping the plywood, but claimed to have no prior knowledge of the law. This incident marks the first fine and prosecution of the 1987 Marine Plastics Pollution Research and Control Act (the U.S. law that implements MARPOL Annex V and regulates the dumping of trash from ships at sea).

1990

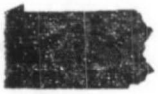
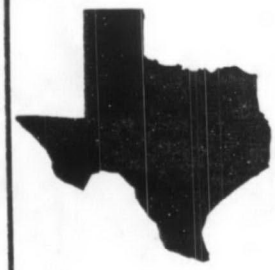
National Beach Cleanup Calendar

State	Cleanup Date	State Contact for Cleanup Locations
ALABAMA	September 22	John Marshall Department of Environmental Management 2204 Perimeter Road Mobile, AL 36615 (205) 479-2336
CALIFORNIA	September 22	Jack Liebster California Coastal Commission 631 Howard Street San Francisco, CA 94105 1-800-COAST4U or (415) 543-8555 For information on data collection call: Maria Brown Center for Marine Conservation 312 Sutter Street, Suite 606 San Francisco, CA 94108 (415) 391-6204
CONNECTICUT	September 22	Peg Van Patten Connecticut Sea Grant Program University of Connecticut Marine Science Institute, Avery Point Groton, CT 06340 (203) 445-3459
DELAWARE	September 29	Nancy Rolli Delaware Department of Natural Resources and Environmental Control 89 Kings Highway P.O. Box 1401 Dover, DE 19901 (302) 736-4506
FLORIDA	September 22	Heidi Lovett Center for Marine Conservation 1 Beach Drive SE, Suite 304 St. Petersburg, FL 33701 (813) 895-2188
GEORGIA	September 22	Jay Calkins Georgia Marine Extension Service P.O. Box 13687 McWhorder Drive University of Georgia Skidaway Island Savannah, GA 31416 (912) 356-2496
HAWAII	October 20	John Yamauchi Hawaii State Litter Control Office 205 Koula Street Honolulu, HI 96813 (808) 548-3400 or 548-6444
LOUISIANA	September 22	Barbara Colthrap Louisiana Department of Culture, Recreation and Tourism P.O. Box 94291 Baton Rouge, LA 70804-9291 (504) 342-8148

1990
National Beach Cleanup Calendar

State	Cleanup Date	State Contact for Cleanup Locations
MAINE	September 29	Nancy Griffin Maine Coastal Program 184 State Street State House Station 38 Augusta, ME 04333 (207) 289-3261
MARYLAND	September 8	Judy Johnson 616 Piccadilly Road Towson, MD 21204 (301) 828-4520 Katie Konopic Alliance for the Chesapeake Bay, Inc. 6600 York Road, Suite 100 Baltimore, MD 21212 (301) 377-6270
MASSACHUSETTS	September 29	Anne Smrcina Coastal Zone Management Program 100 Cambridge Street, 20th Floor Boston, MA 02202 (617) 727-9530
MISSISSIPPI	September 22	Dianne Hunt Mississippi Department of Wildlife, Fisheries and Parks 2620 Beach Blvd. Biloxi, MS 39531 (601) 385-5860
NEW HAMPSHIRE	September 29	Julia Steed Mawson and Joanne Barret Odiorne Point Visitor's Center c/o UNH Sea Grant MEC Administration Building University of New Hampshire Durham, NH 03824 (603) 436-8043
NEW JERSEY	September 22	Susie Feiring Clean Ocean Action Box 505 Building 18 Hartshorne Dr. Highlands, NJ 07732 (201) 872-0111
NEW YORK 	September 23	Roberta Weisbrod and Marion Roet New York State Department of Environmental Conservation Hunters Point Plaza Long Island City, NY 11101 (718) 482-4992 Don Riepe American Littoral Society 28 West 9th Road Broad Channel, NY 11693 (718) 634-6467

1990
National Beach Cleanup Calendar

State	Cleanup Date	State Contact for Cleanup Locations
NORTH CAROLINA	September 22	Lundie Spence or Kathy Hart University of North Carolina Sea Grant College Program Box 8605 Raleigh, NC 27695-8605 (919) 737-2454
OREGON	October 13	Bill Hasty Oregon Department of Fish and Game P.O. Box 59 Portland, OR 97207 (503) 229-5406 ext. 428
PENNSYLVANIA 	September 22	Frances Stein Dept. of Environmental Resources Presque Isle State Park P.O. Box 8510 Erie, PA 16505 (814) 871-4251 or (814) 833-9162
PUERTO RICO	September 29-30 and October 6-7	Ruperto Chaparro UPR Sea Grant Program RUM-UPR P.O. Box 5000 Mayaguez, PR 00709-5000 (809) 832-8045
RHODE ISLAND	September 22	Eugenia Marks Audubon Society of Rhode Island 12 Sanderson Road Smithfield, RI 02917 (401) 231-6444
SOUTH CAROLINA	September 15	Virginia Beach South Carolina Sea Grant Consortium 287 Meeting Street Charleston, SC 29401 (803) 727-2078
TEXAS 	September 22	Linda Maraniss Center for Marine Conservation 1201 West 24th Street Austin, TX 78705 (512) 477-6424 Angela Farias Texas General Land Office 1700 N. Congress Avenue Austin, TX 78701 1-800-85BEACH or (512) 463-5108

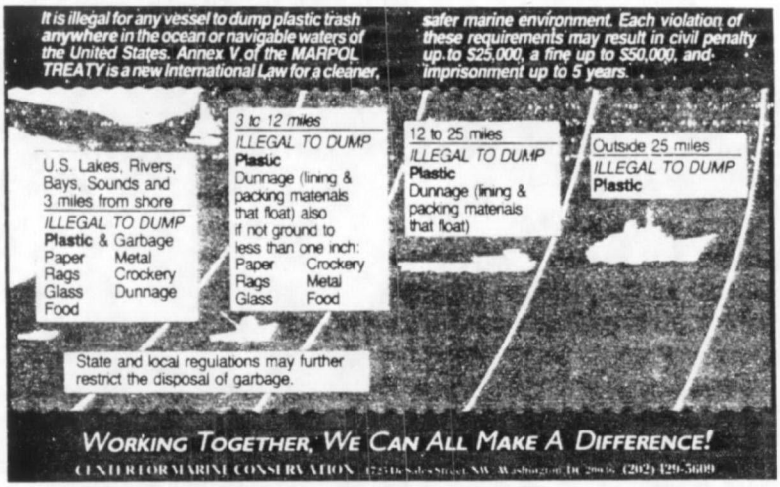
1990
National Beach Cleanup Calendar

State	Cleanup Date	State Contact for Cleanup Locations
VIRGINIA	September 15	Ocean Beaches Dr. Joseph Silvio Audubon Naturalist Society 8940 Jones Mill Road Chevy Chase, MD 20815 (301) 652-5964
	September 22	Chesapeake Bay Deborah Blanton Hampton Clean City Commission 22 Lincoln St. Hampton, VA 23669 (804) 727-6394 or Robert Dean 1204 Shawn Drive Virginia Beach, VA 23456 (804) 427-6606
VIRGIN ISLANDS	COASTWEEKS	Elba McIntosh Department of Natural Resources 45A Estate Nisky, Suite 231 St. Thomas, VI 00802 (809) 774-3320 x-131 or 132
WASHINGTON	September 15	Puget Sound David Parent Puget Sound Bank 1119 Pacific Avenue Tacoma, WA 98402 (206) 753-5759
	September 15-16	Ocean Beaches Arlene Brooks Pacific Northwest 4-Wheel Drive Association 21520 SE 346 Auburn, WA 98002 (206) 833-8747 Joan Hauser-Crowe Washington State Parks 7150 Clearwater Lane Olympia, WA 98504 (206) 753-5759

INTERNATIONAL AND INLAND BEACH CLEANUPS

CANADA	September 29	New Brunswick Kim Saunders New Brunswick Museum 277 Douglas Ave. St. John, New Brunswick Canada E2K 1E5 (506) 658-1842
COZUMEL, MEXICO	COASTWEEKS	Germain Mendez P.O. Box 396 Cozumel, Quintana Roo Mexico 77600 011-529-872-1232
ILLINOIS & INDIANA	September 22	Tim Early Aquasphere P.O. Box 414 Dolton, IL 60419 (708) 396-0999

New Rules for a Clean Ocean



The final regulations for implementing MARPOL Annex V in U.S. waters went into effect on July 31, 1990. Although the dumping of plastics by ships at sea has been prohibited by Annex V since December 31, 1988, these regulations clarify the intent of Annex V and will help all of us who cruise the seas to comply with its mandate.

All vessels at sea, from surfboards to tankers, must comply with these regulations. Each violation may result in a civil penalty of $25,000 or a criminal penalty of $50,000 and up to five years imprisonment. If you witness a violation contact the Center for Marine Conservation or your local Coast Guard office.

In addition, the regulations require all vessels over 26 feet to display a durable placard describing the restrictions of Annex V. These placards must be displayed in prominent locations and in sufficient number so that crew and passengers know and understand the regulations. Captains not meeting these requirements can be fined up to $25,000.

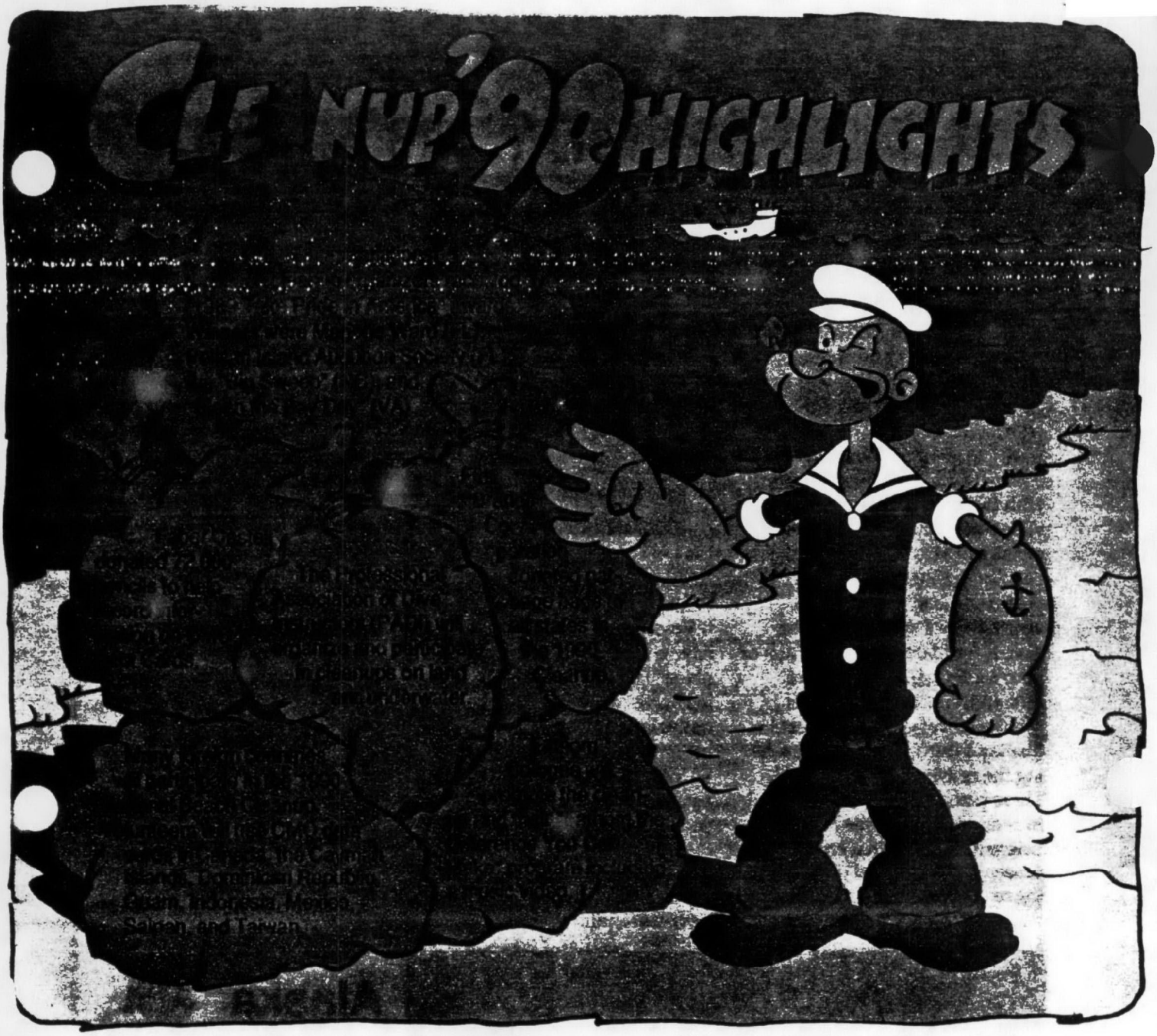
Vessels over 40 feet also need to have a waste management plan in place. The plan must name who is in charge of the vessel and describe how garbage is handled to meet the requirements of Annex V. The Coast Guard may prevent a vessel from sailing unless each person handling garbage follows the ship's plan.

Examples of waste management plans, placards summarizing the dumping restrictions of Annex V, and Observer Marine Pollution Sighting Reports are all available from NOAA's Marine Debris Information Offices, operated by CMC's Washington, DC and San Francisco offices. Also, sailing associations or marine industry organizations may order the Annex V placard imprinted with your group's name in large quantities for distribution to members. Call CMC for details or a copy of the MARPOL sticker shown above.

6,000 volunteers participated in "Clean the Bay Day" in the Chesapeake on June 9, 1990. As part of this cleanup, participants sorted trash for a plastics recycling demonstration project. Trimax Plastic Lumber of Long Island, NY will donate park benches made from the recycled plastics to each cleanup location.

Alaska

Because of severe weather in the fall, Alaska holds its annual cleanup in the Spring. Volunteers in at least seven Alaska coastal communities participated in the 1990 cleanup. Many local, state, and federal groups organized the cleanup. Governor Steve Cowper declared May the "Marine Litter Cleanup Month." Volunteers from all parts of the state responded, collecting trash and recording the information on CMC data cards. Alaska's information will be included in the *1990 Cleaning America's Beaches*, the next report of the National Cleanup.



CMC's Clean Ocean Campaign is supported by: the Environmental Protection Agency, National Oceanic and Atmospheric Administration, the Council for Solid Waste Solutions (a division of the Society of the Plastics Industry), the Society of the Plastics Industry, Dow Chemical Company, Kettering Foundation, NAPCOR, and Patagonia. *Coastal Connection* is produced by the Center for Marine Conservation as part of the Clean Ocean Campaign. Layout by Jill Townsend. Contributing authors: R. Bierce, P. Debenham, K. O'Hara, K. Patterson, and B. Sabin. The Popeye ® family © 1990 King Features Syndicate, World Rights Reserved.

Center for Marine Conservation
1725 DeSales St., NW, Suite 500
Washington, DC 20036
(202) 429-5609

Printed on Recycled Paper

TIME: 8/2/91-- 9:30-10:00 **SUBJECT:** Research & Development: Strategy and Needs

ISSUE STATEMENT: What are the areas of research and technology development needed by the regions and how can these be incorporated into a comprehensive OCPD research strategy?

DISCUSSION POINTS:

Question #1 - What are the short-term and long-term needs of the oceans and coastal programs from both a regional and national perspective?

Examples: Chronic bioassay development, marine DO criteria, overlapping discharge effects biocriteria, population dynamics effects criteria, tropical, arctic bioassay and bioaccumulation protocols, and MSD impact assessment technology

Question #2 - How do we facilitate teamwork in implementing these needs?

- Develop long-term research strategy
- Based on research strategy develop 3-year plan of research and technology needs;
- Meet and agree with OR&D/OST on short-and long-term needs/projects and work more closely within OW Research Committee process;
- Develop planning and reporting strategies to monitor project development.

RECOMMENDATIONS FOR FURTHER ACTION:

- o Coordinate with Regions and continue with OWOW initiative to develop comprehensive 3-year research and technology initiative.
- o Coordinate with Regions, OST, OR&D to develop short-term and long-term needs for oceans and coastal programs.

10:00AM
Friday, August 2

Section 403, Ocean Discharge Program
Extension Inside the Baseline?

Issue Statement: The 102nd Congress has various bills to extend the application of section 403 to waters inside the baseline of the territorial sea (i.e., estuarine and some fresh waters). The Agency needs to respond to Congress with a recommendation.

Background: As the 102nd Congress is currently considering 403 extension, the 101st Congress also considered 403 extension to estuarine waters. On 2/8/89, Congress requested information from the Administrator on discharges to estuarine waters. The Administrator's response stated that the Agency would report back. This report is in draft (6/26/90) awaiting an Agency consensus on a recommendation to Congress. The report has identified approximately 18-20K dischargers that could potentially be affected by 403 extension to all estuarine waters. Approximately 350 discharges (seaward of the baseline) are currently subject to 403. All Agency statements to Congress thus far have asked that the Agency be given discretionary authority to use section 403 requirements for discharges inside the baseline and if given discretionary authority, EPA would publish guidance for 403 application inside the baseline.

Questions/Options:

Do the 403 regulations give us authority to be more protective than water quality-based permitting?

Section 403 can be used as a tool: scientific, legal, political, administrative.

Should the Agency recommend that 403 be applied on a mandatory basis to any portion of estuarine waters?

No, section 403 requirements are useful in some cases but would be burdensome and very resource intensive if mandatorily applied to a given set of discharges.

Should the Agency continue to push for discretionary authority?

Pro: Flexibility to implement 403 on those discharges that require monitoring and permit conditions not easily achievable under other regulatory authorities.

Con: Complete discretionary authority, when applied, could be viewed as arbitrary and capricious.

Should the Agency not bother with a recommendation and let Congress decide without our input?

Recommendation for Further Action: Reach an Agency consensus on this issue and complete the report to Congress concerning section 403 application to discharges in estuarine waters.

JUL 25 1991

TIME: 8/2/91--10:00-10:30 **TOPIC:** 403 Program: Planned Activities

ISSUE STATEMENT:

How can we implement the 403 program to maximize its use as a scientific, legal, political, and administrative tool?

BACKGROUND:

Previous implementation of the program has been highly variable and differs among regions. Until recently little national leadership in program implementation has been demonstrated. The current schedule is to issue an ANPRM in '91; a proposed rule in '92; and a final rule in '93.

DISCUSSION POINTS:

- o Develop more specific regulations defining ODCE terms and decisionmaking endpoints:
- o Work more closely with:
  - Delegated States
  - Permits and WQS
  - OR&D
  - Industrial discharges
- o Regional accountability through OWAS and STARS
- o Allocate FY'92 resources based on:
  - ODCE review of permits
  - Ongoing monitoring data review through ODES
  - Cooperative projects with State or local agency(s)
  - Research needs
- o Technology transfer/guidance, training, and hands-on assistance for Regions and States
  - ODCE training
  - Monitoring plans and data analysis
  - ODES

RECOMMENDATIONS FOR FURTHER ACTION:

- o Consult and brief Water Division Directors.
- o Begin to fully implement national program as described above.

JUL 25 1991

§301(h) Regulations Update

Schedule

Jan 24	301(h) regulations proposed in Federal Register
Apr 15	Public comment period closed
Jun 11	301(h)/403 National meeting discussed the regulations issues with 301(h) regional coordinators and OGC
Jul 8	Conference call with coordinators, OGC, OWEC and OST

Next Steps

Aug	Convene work group--Issues discussion; draft rule
4QFY91	Draft final rule to Work Group
1QFY92	Red Border
2QFY92	OMB review
2QFY92	Administrator sign-off

Expected Changes to Proposed Rule

Primary Treatment

Proposed Rule requires at least 30% removal each of BOD and of SS, using monthly averaging

Options currently under consideration

- o No change to Proposed Rule
- o Variance on 30% requirement, as in secondary treatment, regulations to allow special consideration for weak influent

Urban Area Pretreatment

For POTWs serving greater than 50,000 population, proposed rule requires applicable pretreatment requirement for all toxics introduced to POTW, or secondary removal equivalency demonstrated through the use of pilot secondary plant to determine the amount of toxics to be removed.

Options currently under consideration

- o No change
  - Clarify applicability to all toxics introduced to POTW;
  - clarify no penalty incurred through use of pretreated influent
  - Provide additional guidance in preamble and TSD
- o Apply only to toxics of concern

Water Quality Criteria

Proposed rule requires meeting 304(a)(1) water quality criteria, or directly corresponding state water quality standards, at and beyond the boundary of the Zone of Initial Dilution (ZID)

Options currently under consideration

Risk:

- o Specify 10^{-6} incremental cancer risk level and reference rule on national overriding standards for toxics

Compliance Boundary:

- o Apply state mixing zone policies, if any, to State Standards, 304(a)(1) water quality criteria
- o Apply state mixing zones to State Standards; ZID to water quality criteria

Summary of Commenters

10 applicants/permittees--AK, CA, HI, MA, PR

2 States--AK, HI

3 Environmental/Public Interest Groups--NRDC, Am. Oceans Campaign, Trustees for Alaska

2 Consultants

JUL 25 1991

(15)

ISSUE PAPER
FOR THE BRANCH CHIEF'S MEETING
OCPD SESSIONS

Time: Aug. 1, 1991, 2:00 pm **Topic:** Information Management

Issue Statement:

How can we influence and apply coastal and marine information management for informed management decisions?

Background:

A Regional data use survey was conducted this year. Minimal accountability for marine monitoring data was observed. Centralized data management was minimal. Contractors conduct a majority of the data analyses. EPA staff often lack the training and time to interpret data.

OW policy requires NEPs to submit data to ODES. Few NEPs are meeting this requirement. Some are building their own systems.

POTW's with 301(h) waivers are required to monitor and submit data to ODES. In some cases, monitoring is not done. In other cases, data are submitted, reviewed for QA/QC, and then loaded onto ODES for a final review by the permittee. The permittee is often slow to complete this review process. Also, available data are often not analyzed on an on-going basis. Analyses of five year's data at one time does not allow mid-course correction to monitoring plans.

No clear, comprehensive monitoring and data management plan is in place for the 403 Program.

Questions/Options:

How can we increase Regional capabilities for analyzing monitoring data?
How can we ensure that data get into ODES and are reviewed in a timely manner?
Are we selecting appropriate environmental indicators and monitoring studies?
What changes in the ODES system or procedures do Regions need?
What marine/coastal data management needs would we like to see met in STORET modernization? EMAP?

Recommendations for Further Action:

Provide Region-specific training opportunities (eg., Region 4 analysis of sediment toxicity data and benthic analysis).
Enforce NEP policy for ODES.
Clarify monitoring and data management goals for the 403 program.
Follow-up on 301(h) POTW data set reviews.
Contact K. Klima for input to STORET modernization executive committee.

ISSUE PAPER

FOR THE BRANCH CHIEFS' MEETING

OCPD SESSION

AUGUST 2, 1991

Time: 11:30 am Topic: Ocean Dumping Workload Model

ISSUE STATEMENT:

The existing ocean dumping workload model emphasizes EIS production and designation of ocean dumping sites.

BACKGROUND:

Management and monitoring activities at dredged material sites need emphasis. Unfortunately, the existing model does not stress the importance of permit review, site management, and site monitoring. At the Monterey, CA, ocean dumping coordinators' meeting in February of 1991, validity of the ocean dumping model was a major issue and the coordinators agreed changes were needed to improve the model.

The opportunity to change the model does not always arise, and if it does, the window typically is in a 2-3 week period in March or April. Given the rapid turn-around required on model changes, we need to begin identifying the issues and seeking consensus now.

QUESTIONS/OPTIONS:

What process should we use to improve the model?
- rerun with new input (recent data)
- change model or modify existing one.

What are the quantifiable measures we can use to evaluate management and monitoring at ocean dumping sites?

RECOMMENDATIONS FOR FUTURE ACTION:

OCPD and the Regions should work to identify and agree on needed modifications of the existing workload model.

If the opportunity is provided to make changes to the model later in 1992, OCPD should seek to make the agreed-on changes.

8

9

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
841 Chestnut Building
Philadelphia, Pennsylvania 19107

SUBJECT: Regional Position for Upcoming OWOW Meeting

DATE: 7-17-91

FROM: Richard V. Pepino, Chief
Environmental Assessment Branch (3ES40)

TO: Louise Wise
Director of Office of Policy & Communication (WH-556F)

We are forwarding two papers recently prepared that present the Regional views on topics likely to be discussed at the July 30 Branch Chief's Meeting. We have presented our interest in discussing these topics during the development of the agenda for the meeting, as well as during my personal interview with Ginger. Though I do not think these topics are unique to Region 3, I wanted to send these papers since they present at least one regional perspective on issues that I am quite sure are still being debated in Headquarters.

Feel free to use them during the meeting if you feel they may enhance this discussion. Please feel free to call me at 597-1181 if I can be of assistance prior to or during the meeting.

Attachments

BENEFICIAL USE OF DREDGED MATERIAL

Background

In keeping with Agency policy to promote pollution prevention and to encourage the recycling of material once thought of as spoil, EPA Region III is promoting the concept of beneficial use as it pertains to dredged material (hereafter referred to as beneficial use). Beneficial use may be described as the recycling of material dredged from navigation channels by using it to improve the environment or as an economic resource. Environmental benefits include island and wetland creation, habitat creation, beach replenishment or other shoreline controls and underwater capping of contaminated sediments. Economic opportunities include recycling the material for use as construction material and placing the material on roads as traction material.

In Region III alone there are over 100 federal navigation channels that must be maintained for shipping in the major Atlantic coastal ports of Norfolk, Baltimore and Philadelphia. In addition to these large dredging projects, millions of cubic yards of material are generated annually by individual projects.

Accomplishing the necessary dredging of shipping channels and the preserving environmental quality are often seen as conflicting goals. Environmental concerns, such as the loss of aquatic resources and the potential for contamination, have begun to play a significant role in the selection of disposal alternatives. This factor, in combination with loss of available upland space, has created a dearth of disposal options. In heavily populated areas such as Region III the result is that large amounts of dredged material, both clean and contaminated, have no place to call home.

The Army Corps of Engineers, however, is exploring the prospects of utilizing dredged material as a resource and where possible using it for a beneficial purpose. Beneficial use is currently being explored in Region III by the Baltimore, Norfolk and Philadelphia Districts. Both port and channeling maintenance necessitate the dredging and disposal of millions of cubic yards of dredged material annually. Presently most of the material dredged in Baltimore and Norfolk harbors is placed in containment facilities. Both facilities, however, are nearing capacity. As a result Long Term Management Strategies (LTMS) are being initiated to deal with future disposal options.

Issue

Because beneficial use options are usually more costly due to engineering constraints and transportation costs we feel that districts will be less likely to seriously consider them as real alternatives. EPA Region III would like to promote the consideration of beneficial use options for federal navigation projects. We feel this may be best accomplished by creating a Regional policy with the goal of achieving beneficial use projects as the options of first choice when considering dredged material disposal.

Action

EPA Region III is initiating an intra-regional task force with the goal of integrating several sections within the Environmental Services Division (Wetlands, Oceans and Estuaries and NEPA) as well as the Chesapeake Bay Program Office. The objective of the task force is to review, develop and implement beneficial use projects. The primary focus of the projects is to achieve the resource recovery objectives defined by the various section programs. A secondary goal is to encourage the Agency to prepare an MOA with the Corps of Engineers that allows environmental gains to be factored into the cost/benefit analysis of future dredging projects.

REGION III COASTAL PROGRAMS INTEGRATION
ISSUES FOR THE OFFICE OF WATER
BRIEFING FOR La JUANA WILCHER
JUNE 24, 1991

Region III is approaching coastal and estuarine protection in a comprehensive and holistic manner. Our implementation of the National Estuary Programs (NEPs) is an example of this new approach. As the NEPs enter the crucial stage of developing the Comprehensive Conservation and Management Plans, we see potential for innovative approaches to geographic initiatives.

This approach offers several important opportunities for comprehensive environmental improvement including 1) existing organization structure, 2) consensus participation, 3) programmatic integration, and 4) holistic solutions.

CCMP Implementation:

Region III's Tier II Estuary Programs, the Inland Bays Estuary Program and the Delaware Estuary Program, have begun the process of CCMP development. The Inland Bays Estuary Program, a single state program has identified the actions to be included in the CCMP which will be completed by October 1993. The Delaware Estuary Program, a multi-State, bi-regional program, will develop a Preliminary Conservation Management Plan (PCMP) in FY 92. The CCMP is due October 1994.

The early targets for the development of the CCMPs reflect the high level of commitment in both programs by the signatories of the Conference agreements. EPA commitment to the Federal-States partnership is responsible for this high level of involvement. Conference participants in both programs are cognizant that CCMP implementation may not be funded by federal monies and are actively pursuing alternative financing mechanisms. Concerns regarding the lack of federal involvement after CCMP developments have recently been voiced in both programs. The states have indicated that federal oversight will be critical in the implementation phase to ensure cooperation within and among the state(s) by maintaining the Federal/State Partnerships through federal human resource allocations, at the minimum. Headquarters must soon resolve EPA's role in CCMP implementation to avoid undermining consensus at this critical stage.

The NEPs can serve as the prototype for Agency's focus on watersheds as the handle to effectively address pollution abatement and environmental restoration. Indeed Region III has used a streamlined NEP approach to achieve success in the Canaan Valley initiative. The success of the NEPs and the Administrator's geographic initiative is dependent on EPA's continued leadership. Leadership means more than providing funds.

Leadership means setting nationally consistent, scientific and programmatic goals, providing a forum for dispute arbitration across state and local boundaries and between organizations, and establishing a rational process for prioritizing projects and allocating funds in a climate of limited resources.

Geographic Initiatives and Base Program Integration:

The Administrator of EPA has identified geographic initiatives as a primary focus in strategic planning for future years. A critical element of geographic initiative is the difficult, yet very important, integration and coordination of base programs mandated by environmental legislation. An effective mechanism to target the integration of these base programs is through the National Estuary Programs (NEP) and Near Coastal Water Programs (NCW).

Region III has several geographic initiatives including its two NEPs, the Chesapeake Bay Program, its NCW program and the Cannian Valley project. These programs have established boundaries, environmental goals and organizational structures critical to the effective integration of base programs.

The NEP organizational structure is invaluable. Each of the programs has an established management conference including federal, state, and local government agencies, scientist, citizens, and the regulated community. Management conference members are learning to understand and respect the objective and concerns of other member organizations. Efforts to coordinate are expanding, and organizations are becoming more willing to work together. This attitude is essential to the success of any geographic targeted initiative and takes time and effort to develop.

Integration of base programs into these geographic initiatives is crucial. Because of organizational boundaries and established priorities, however, existing base programs are reluctant to focus on a particular estuary or watershed and its specific goals and needs. EPA enforcement activities, regulatory and grants programs should share common environmental goals within geographic areas. Environmental quality objectives should be used to set goals for issues such as wetlands, non-point source pollution, combined sewer overflows, pretreatment programs, as well as other initiatives such as pollution prevention, risk management, and terrestrial habitat. Watersheds are the logical focus for the integration of these base programs.

The framework of the NEP, the decision-making bodies of involved and affected agencies and constituencies, can become the model process for management of the nation's watersheds. Simplifying the mobilization of base programs is necessary to bring the goals of these geographic initiatives to fruition. However, goals can only be achieved if CCMPs are given weight and credibility within EPA itself. Multi-media, multi-program integration mandates coordination and cooperation. Headquarters must rally EPA base

programs to implement the conclusions of the NEPs.

Integrating Initiatives and Funding

Efforts to bring about real environmental improvements have created a confusing array of new initiatives and funding programs. For example, the geographic approach applied in the National Estuaries Program has been overlaid with Coastal America, the Watershed Initiative, and the Near Coastal Waters Implementation Programs. Projects are often generated to use the various separate funding source rather than to implement planned objectives. Regions and states have become sidetracked preparing proposals for each new initiative, instead of completing geographic planning and implementation. Headquarters should establish order by creating a reliable integrated funding mechanism to assure that the money available is used to meet existing needs. This can be accomplished by providing funds to each region and allowing for an internal prioritization process, or by developing a national ranking system to allocate funds. In either case, a systematic means of allocating scarce resources is imperative to achieve real environmental benefits.

Office of Wetlands, Oceans and Watershed

National Program Meeting

U.S. Environmental Protection Agency
Office of Water
Office of Wetlands, Oceans and Watersheds

Charlottesville, Virginia
July 30 - August 2, 1991

AGENDA

Prelude
Monday Evening, July 29

5:30 - 9:00 pm *Salon C*	Registration Reception	

Day One
Tuesday, July 30

8:00 - 8:30 am *Salon C*	Registration Continental Breakfast	

Joint Session
Salon C

8:30 - 9:15 am	Welcome *Introduction* *Meeting Objectives* *OWOW Organization and Functions*	*Wayland/Davis*
9:15 - 10:15 am	Customer Survey and Regional Discussion	*Regions/Wise*
10:15 - 10:30 am	Break	

Office of Wetlands, Oceans and Watershed

National Program Meeting

	Customer Survey and Regional Discussion	
10:30 - 11:30 am		
11:30 - 12:00 pm	Budget	*Davis*
12:00 - 1:30 pm	Lunch Keynote Speaker: Trevor Clements North Carolina Division of Environmental Management	*The Hardware Store Restaurant* *316 E. Main St* *On the Historic Downtown Mall*
1:30 - 2:30 pm	Long Term Vision and Short and Long Term Goals *Reorganization Implications* *Common Challenges/Opportunities* *Discussion*	*Wayland/Davis*
2:30 - 2:45 pm	Break	
2:45 - 4:30 pm	Watershed Protection *WPI* *Regional Examples* *Barriers and Incentives*	 *Wise* *Manfredonia* *McGhee/Regions*
4:30 - 5:30 pm	Crosscutting Issues *CWA* *Outreach* *SAB/Habitat* *Agricultural Pollution Prevention* *Water Conservation*	 *Wise* *Eugster/ Pawlukiewicz* *Grubbs* *Davis*
5:30 pm	Adjourn	

Office of Wetlands, Oceans and Watershed

National Program Meeting

6:30 - 7:30 pm *Atrium Room*	Social Hour	
7:30 pm *Atrium Room*	Group Buffet Dinner Keynote Speaker: Trudy Coxe National Oceanic and Atmospheric Administration	

Day Two
Wednesday, July 31

8:00 - 8:30 am *Salon C*	Continental Breakfast	
Joint Session *Salon C*		
8:30 - 9:30 am	NPS/CZMA	*Grubbs*
9:30 - 10:30 am	Delineation Manual	*Meagher*
10:30 - 10:45 am	Break	
10:45 - 11:45 am	Sediment Strategy	*Lishman*
11:45 - 12:45 am	Lunch *on your own*	
Breakout Sessions		
12:45 pm	Refer to the Division Agenda	*Division Directors*
Meeting room assignments will be posted.	*You will find the Division Agendas following this agenda in your notebook.*	

Office of Wetlands, Oceans and Watershed

National Program Meeting

Day Three
Thursday, August 1

8:00 - 8:30 am *Salon C*	Continental Breakfast	
Breakout Sessions		
8:30 - 10:15 am	Refer to the Division Agenda	*Division Directors*
Meeting room assignments will be posted.	*You will find the Division Agendas following this agenda in your notebook.*	
10:15 - 10:30 am	Break	
Joint Session *Salon C* 10:30 - 11:30 am	Remaining Issues and Action Items	*Wise*
11:30 - 12:00 pm	Wrap-up	*Regions/ Wayland*
Breakout Sessions		
12:00 pm	Options for the Division Directors Refer to the Division Agenda	*Division Directors*
Meeting room assignments will be posted.	*You will find the Division Agendas following this agenda in your notebook.*	

Office of Wetlands, Oceans and Watershed

National Program Meeting

Day Four
Friday, August 2 (Optional for Division Directors)

8:00 - 8:30 am *Salon C*	Continental Breakfast	
Breakout Sessions		
8:30 am	Options for the Division Directors Refer to the Division Agenda	*Division Directors*
Meeting room assignments will be posted.	*You will find the Division Agendas following this agenda in your notebook.*	

OCEANS AND COASTAL PROTECTION DIVISION

Draft Agenda July 17, 1991

Oceans and Coastal Protection Division/Regions

Wednesday, July 31 Joint Session		Leads[2]
8:30 - 9:30	Non-point Source/Coastal Zone Management Act	Grubb
9:30 -10:30	Delineation Manual	Meagher
10:30-10:45	Break	
10:45-11:45	Sediment Strategy	Lishman Southerland
11:45- 12:45	Lunch	
	Oceans and Coastal Protection Division Session Begins	
12:45- 2:00	Introductory Comments and Regional Issues and Meeting Expectations	Mlay/Barsamian
2:00 - 3:30	National Estuary Program Post CCMP Activities o Role of EPA in implementation, e.g. Multi-state estuaries. o 320 "oversight-evaluation" o Other resources; 319 et.al. o Evaluation protocol/how to proceed.	Curran/ Region X
	New NEPs o Funding availability for new NEPs o "Ultraslimfast" approach to CCMP development	Curran/Barsamian
	Current NEPs o Support activities o Oversight activities o Funds management o Earlier date for plans and funds release	Curran/Manfredonia
	Coastal America o Status Report o Review of FY91 Pilot projects o Coastal America support other coastal programs, e.g. NCW.	Curran
3:30 - 4:30	Near Coastal Waters Program o Status of NCW Guidance and next steps o Region I and X experiences-->guidance document o Base Programs support of NCW Strategy Implementation o NCW vs. Watershed Initiative: Relationship	Soscia/Monahan

4:30 - 5:30	OCPD - AWPD - Regions Round Table Discussions o CZM - relationship to OCPD and AWPD o NPS Control Measures o Coordination/cooperation o Information Management o Monitoring	Vogt/Pepino

Thursday

8:30 - 10:30	FY92 Planning o Regional input to HQ Workplan -Process -Areas for consultation o Information Transfer	Mlay
	Joint Session	
10:30 -11:30	Remaining Issues and Action Items	Wise
11:30 -12:00	Wrap-up	Regions/Wayland
Noon - 1:00 pm	Lunch	
1:00 - 2:00	OCPD - Wetlands Division - Regions Round Table Discussions o Habitat enhancement o Mitigation Banking o Wetlands and the NEP o Coordination/cooperation	Soscia/Eugster/ Crum
2:00 - 3:00	FY91-93 OCPD Budget Issues o FY91 Budget: Remaining issues o FY92 Budget (See Plan) o FY93 Budget Process: Initiatives - outlook	Mlay-Vogt
3:00 - 4:00	Ocean Dumping o LTMS for Dredged Material/Beneficial Uses o Status of Green Book/Regional Manuals o CZMA Consistency/OD Designations o National Marine Sanctuaries/DM Sites o Site management and monitoring.	Lishman/Muir
4:00 - 4:30	Marine Debris Strategy/Action Plans	Redford/ Region II

Friday

8:30 - 9:00	ANDERSON o NCW and NEP Monitoring o Scheduling: 2-3 year plan o Planning and Reporting strategies	Klima/ Region III
9:00 - 9:30	Outreach o Coastal Pollution Workshops o Beach Cleanups o ANDERSON PR o Mechanisms for transferring information?	Klima/ Region IV
9:30 - 10:00	Research & Development: Strategy & Needs o Determining needs o Working with ORD to keep on track o NCW and NEP Monitoring o Scheduling: 2-3 year plan o Planning and Reporting Strategies	Vogt/Hood
10:00 - 10:30	403 Program: Planned Actions o Moving 403 inside the Baseline o Resource allocation/STARS o ANPRM Schedule/Scope o Training	Klima/ Region X
10:30 - 11:00	Information Management o Status of ODES o What are needs/gaps information management o Use of ODES in NEPs, OD and 403(c) Programs o Interface with ODES now that it is not in OCPD o Environmental Indices	Klima/ Region VI
11:00 - 11:30	Issues closure, review of action items, next steps.	Mlay
11:30 - 12:30	Ocean Dumping (Workload Model)	Lishman/Vogt/ Barsimian

[1] Regional Leads to be decided after consultation with Lead Region and potential Regional co-leads.

Note: A briefing book to be provided in advance of the meeting.

OCEANS AND COASTAL PROTECTION DIVISION

Final Agenda

Oceans and Coastal Protection Division/Regions

		LEAD
12:45- 2:00	Introductory Comments and Regional Issues and Meeting Expectations	Mlay/Barsamian
2:00 - 3:30	National Estuary Program Post CCMP Activities o Role of EPA in implementation, e.g. Multi-state estuaries. o 320 "oversight-evaluation" o Other resources; 319 et.al. o Evaluation protocol/how to proceed.	Curran/Rylko
	New NEPs o Funding availability for new NEPs o "Ultraslimfast" approach to CCMP development	Curran/Barsamian
	Current NEPs o Support activities o Oversight activities o Funds management o Earlier date for plans and funds release	Curran/Manfredonia
	Coastal America o Status Report o Review of FY91 Pilot projects o Coastal America support other coastal programs, e.g. NCW.	Soscia
3:30 - 4:30	Near Coastal Waters Program o Status of NCW Guidance and next steps o Region I and X experiences-->guidance document o Base Programs support of NCW Strategy Implementation o NCW vs. Watershed Initiative: Relationship	Soscia/Monahan
4:30 - 5:30	OCPD - AWPD - Regions Round Table Discussions o CZM - relationship to OCPD and AWPD o NPS Control Measures o Coordination/cooperation o Information Management o Monitoring	Vogt/Pepino

Thursday

8:30 - 10:30	FY92 Planning o Regional input to HQ Workplan -Process -Areas for consultation o Information Transfer	Mlay
	Joint Session	
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Noon - 1:00 pm	Lunch	
1:00 - 2:00	OCPD - Wetlands Division - Regions Round Table Discussions o Habitat enhancement o State Wetlands Conservation Plans o Wetlands and the NEP o Coordination/cooperation	Soscia/Eugster/ Barsimian/Crum
2:00 - 3:00	FY91-93 OCPD Budget Issues o FY91 Budget: Remaining issues o FY92 Budget (See Plan) o FY93 Budget Process: Initiatives - outlook	Mlay-Vogt
3:00 - 4:00	Ocean Dumping o LTMS for Dredged Material/Beneficial Uses o Status of Green Book/Regional Manuals o CZMA Consistency/OD Designations o National Marine Sanctuaries/DM Sites o Site management and monitoring.	Lishman/App
4:00 - 4:30	Marine Debris Strategy/Action Plans	Redford/DelVicario

Friday

8:30 - 9:00	ANDERSON o NCW and NEP Monitoring o Scheduling: 2-3 year plan o Planning and Reporting strategies	Klima/App
9:00 - 9:30	Outreach o Coastal Pollution Workshops o Beach Cleanups o ANDERSON PR o Mechanisms for transferring information?	Klima/Crum
9:30 - 10:00	Research & Development: Strategy & Needs o Determining needs o Working with ORD to keep on track o NCW and NEP Monitoring o Scheduling: 2-3 year plan o Planning and Reporting Strategies	Vogt/Hood/DelVicario
10:00 - 10:45	403 Program: Planned Actions o Moving 403 inside the Baseline o Resource allocation/STARS o ANPRM Schedule/Scope o Training 301(h): An Update	Klima/Rice
10:45 - 11:15	Information Management o Status of ODES o What are needs/gaps information management o Use of ODES in NEPs, OD and 403(c) Programs o Interface with ODES now that it is not in OCPD o Environmental Indices	Klima/Horvath
11:15 - 11:30	Issues closure, review of action items, next steps.	Mlay
11:30 - 12:30	Ocean Dumping (Workload Model)	Lishman/Vogt

WETLAND DIVISION

NATIONAL PROGRAM MEETING

Draft Agenda

Monday Evening, July 29 - Prelude

5:30 -	Registration/reception	

Day 1, Tuesday, July 30

8:30 - 5:30	OWOW Joint Session	
6:30 - 7:30	OWOW Social Hour	
7:30 -	OWOW Group Buffet Dinner	

Day 2, Wednesday, July 31

8:30 - 11:45	OWOW Joint Session	
11:45 - 12:45	Lunch	

Breakout Session

12:45 - 1:30	Welcome/introductory comments	Meagher/ Lead Region
1:30 - 2:15	Agency planning/budgets/effects of reorganization/etc in a nutshell	Meagher
2:15 - 3:45	Regional roundtable	Region 9, Moderator
3:45 - 4:00	Break	
4:00 - 6:00	Where are we and how did we get here? (status updates on DPC/Congress, including CWA reauthorization/Reilly and LaJuana's positions on categorization/etc., and discussion)	Schwartz
7:30 -	Wetlands Division Dinner	

Day 3, Thursday, August 1

Breakout Session

8:30 - 10:15	Now that we're here, what do we do about it? (Regional strategic initiatives)	Eugster/ Pomponio

10:15 - 10:30	Break	
OWOW Joint Session		
10:30 - 12:00	Remaining issues, action items and wrap-up	
Breakout Session		
12:00 - 1:00	Lunch	
1:00 - 2:00	OCPD/WD Joint Session (habitat enhancement, mitigation banking, wetlands/NEP, coordination/ cooperation)	Crum/Eugster /Soscia
2:00 - 3:15	Where have we been told we will be going? (categorization; mitigation banking; Manual; created wetlands; section 404 assumption; state wetland comprehensive plans)	Eugster/ Peck
3:15 - 3:45	Break	
3:35 - 4:45	Example of approach to field testing the Manual	Region 3
4:45 - 6:15	What can we do while we're here? (elevated cases; enforcement; delineations; getting better, more specific data; public outreach; working with states/locals; working with other programs)	Peck/Eugster /Vodehnal
8:00 -	Open discussion on Manual and any other issues raised/beer bash	

<u>Day 4, Friday, August 2</u>

Breakout Session		
8:30 - 10:00	Where do we want to go? (ORD research plan; beyond the strategic initiative)	Group/ORD
10:00 - 11:30	Wrap-up (action items, etc.)	Schwartz
11:30 - 12:00	Good-byes	

ASSESSMENT AND WATERSHED PROTECTION DIVISION

OFFICE OF SCIENCE AND TECHNOLOGY

JOINT MEETING

Day 2, Wendesday, July 31

12:45 - 1:15	OST/OWOW Coordination	Hanlon/Grubbs
1:15 - 2:30	Monitoring and Assessment	Jester/Regions

- o Indicators/EMAP
- o Inter-Agency Coordination
- o Data Systems Modernization

2:30 - 2:45	Break	
3:00 - 4:30	Nonpoint Source Program	Weitman/Regions

- o Grants: Buying better results
- o National NPS monitoring projects
- o Tracking/accountability

4:30 - 5:30	Joint Session with OCPD	

Day 3, Thursday, August 1

8:00 - 9:45	Water Quality Criteria and Standards	Stasikowski /Leutner

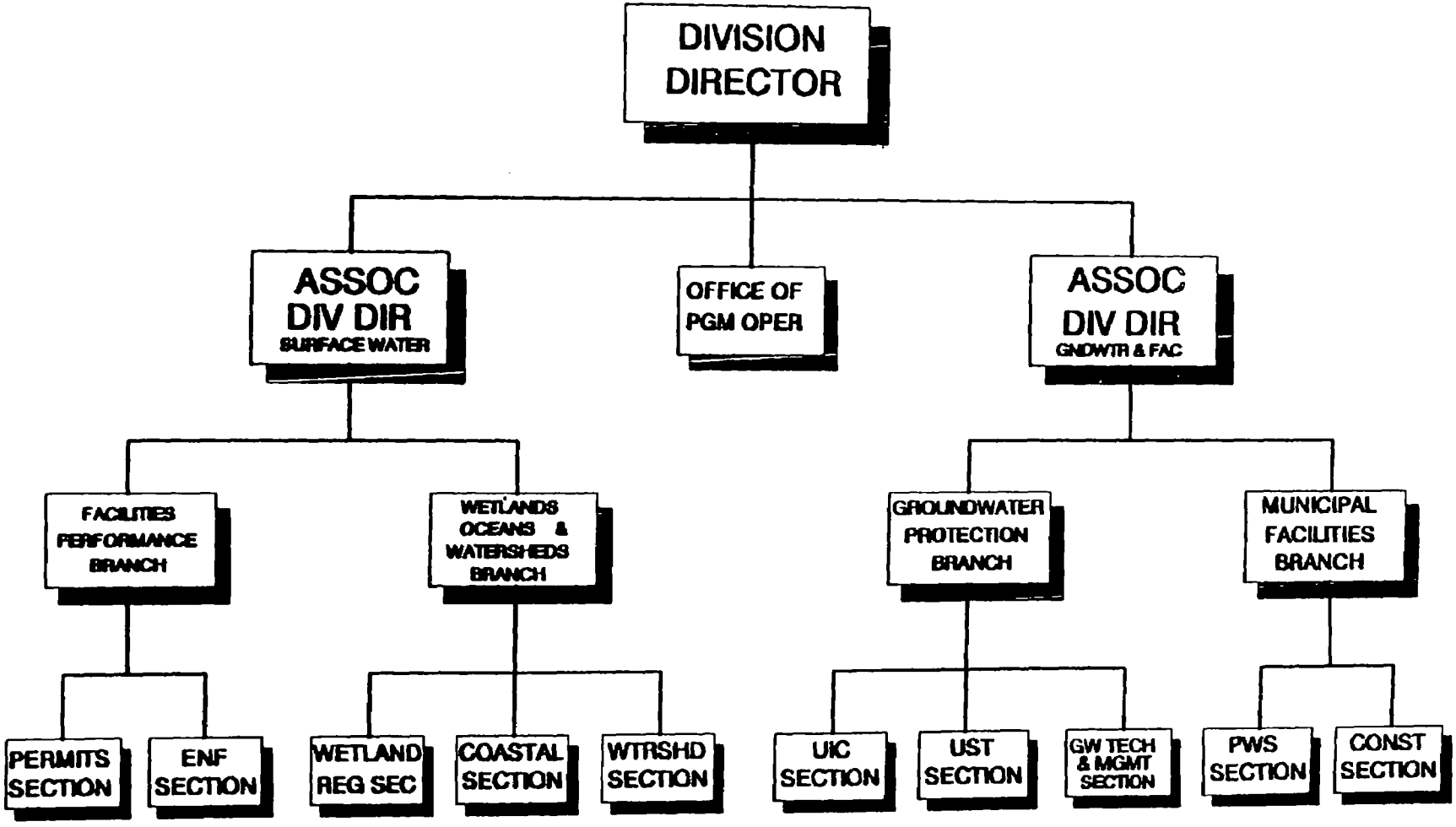
- o Criteria: Current program, future needs
- o Toxics Rule
- o Implementation Issues

9:45 - 11:00	Watershed Program	Grubbs/Hanlon

- o TMDLs
- o Targetting
- o Regional WPIs

PROPOSED

WATER MANAGEMENT DIVISION



(2) Wetlands, Oceans, and Watersheds Branch - Provides program policy and technical direction of the Regional Dredge and Fill Permits, Non-point Source Control, Water Quality Monitoring, Watershed Protection Programs and the Coastal Protection Programs.

(a) Wetlands Regulatory Section - This Section consists of the Wetlands North Regulatory Unit and the Wetlands South Regulatory Unit. This Section is responsible for managing the Region's permitting and enforcement activities associated with the Clean Water Act Section 404 wetlands protection program. This Section also provides review of projects associated with Section 10 of the Corps of Engineers' Rivers and Harbors Act. This Section interprets and implements regulations and guidelines governing permit and enforcement actions pertaining to Clean Water Act Section 404.

(1) Wetlands South Regulatory Unit - This Unit is responsible for all Clean Water Act Section 404 permitting and enforcement in the states of Florida, Alabama and Mississippi. The specific duties of the Unit include: review and preparation of written/verbal comments on Section 404 permit applications, letters of permission, and cease and desist orders distributed by the Corps of Engineers in the states of Florida, Mississippi, and Alabama. Projects associated with Section 10 of the Rivers and Harbors Act also receive review and comment, if appropriate. Responsibilities also include meeting with applicants to discuss projects; initiation and follow-up of enforcement actions associated with illegal discharge of fill material; surveillance to identify illegal fills, and determination of the Section 404 jurisdiction.

(2) Wetlands North Regulatory Unit - This Unit is responsible for all Clean Water Act Section 404 permitting and enforcement in the states of Georgia, South Carolina, North Carolina, Kentucky and Tennessee. The specific duties of the Unit include: review and preparation of written/verbal comments on Section 404 permit applications, letters of permission, and cease and desist orders distributed by the Corps of Engineers in the states of Georgia, South Carolina, North Carolina and Tennessee. Projects associated with Section 10 of the Rivers and Harbors Act also receive review and comment, if appropriate. Responsibilities also include meeting with applicants to discuss projects; initiation and follow-up of enforcement actions associated with illegal discharge of fill material; surveillance to identify illegal fills, and determination of the Section 404 jurisdiction.

(b) Coastal Programs Section - The Coastal Programs Section serves as a focal point in Region IV to protect, restore, and enhance the region's coastal and marine environment. The Section implements the National Estuary Program, the Near Coastal Waters Program, the Ocean Disposal program and the Clean Water Act Section 403c program. The Section serves as the coordination point for EPA Region IV programs and other agency activities to p[illegible]
and marine environment.

(1) Coastal Planning Unit - The Coastal Planning Unit has responsibility for implementing the Clean Water Act Section 320 National Estuary Study program and the Near Coastal Waters Program. The Unit serves as the coordination point for EPA programs affecting Region IV's coast and works closely with other federal, state and local programs to focus and integrate planning activities and management attention to achieve comprehensive geographically targeted planning for protection of coastal resources.

(2) Coastal Regulatory Unit - The Coastal Regulatory Unit serves as a focal point for Regional regulatory activity in Region IV's marine waters. The Unit implements the Clean Water Act Section 403c program; the Marine Protection, Research and Sanctuaries Act ocean disposal program; the Marine Debris program and the coastal contaminated sediments program. The Unit serves as the coordination point for EPA programs affecting Region IV's coast and works closely with other federal, state and local programs to focus and integrate regulatory activities and management attention to achieve a comprehensive approach to protection of marine resources.

(c) Watershed Protection Section - The Section consists of wetlands planning, wasteload allocation/TMDL, water quality monitoring, non-point sources, clean lakes, and watershed initiative programs.

(1) Wetlands Planning Unit - Performs planning and other non-regulatory activities that improve protection of important wetland resources. Identifies geographic areas or developmental pressures which historically or currently have resulted in a significant loss of wetland resources. Develops and implements plans and strategies to assure that future significant losses are minimized, to restore damage wetland and aquatic systems, and to create new wetland systems where wetland losses cannot be avoided. Additional responsibilities include: design and implement advance planning studies, administer grant program to states for wetlands program development, provide policy and technical guidance to state and local agencies on wetlands issues; identify wetlands unsuitable for development and initiate predesignation (404(c)) procedures, and develop an outreach and education program.

(2) Assessment and Allocation Unit - This Unit manages Region IV's monitoring and assessment, wasteload allocation and load allocation (TMDL) programs and provides technical support to other Regional programs on water quality issues. The Unit's functions include: development of guidance on pollutant load allocations; review/develop water quality based NPDES permit limits for State/EPA issued permits; evaluation of State monitoring and assessment programs; development of monitoring initiatives; evaluation of 305 (b) reports; and, coordination of STORET data input.

(3) Watershed Unit - Manages water quality in Region IV states with special emphasis on geographic initiatives, nonpoint source pollution, interagency cooperation and grants management. This Unit's functions include: management of Region IV geographic and watershed initiatives, Nonpoint Source and Clean Lakes programs; overview of State water quality management programs; grants management for assigned programs; and provision for interagency cooperation in water quality management programs.

The Associate Division Director for Groundwater and Facilities reports to the Division Director and provides direct supervision to the branch chiefs in Ground Water Protection Branch and Municipal Facilities Branch.

(5) Ground-Water Protection Branch - Responsible for the development, coordination, implementation and evaluation of several of the Region's ground-water related programs, including the Underground Injection Control (UIC), Underground Storage Tanks (UST), and Ground-Water Protection Programs.

(a) Underground Storage Tank Section - Responsible for the development and implementation of policies and procedures that regulate underground storage tanks. Functions include: award and oversight of state regulatory grants; review and approval of state programs; and responsibility for programs not accepted by states. Technical expertise and assistance are provided to states to support state efforts in regulating such tanks. Enforcement actions are taken against violators of the UST Program. Responsible for the administration of the UST Trust Fund.

(b) Underground Injection Control Section - Responsible for the regional coordination and implementation of the UIC Program in accordance with the Safe Drinking Water Act (SDWA). The responsibilities include: permitting and compliance activities in non-delegated states; oversight of such activities in delegated states; and review of primacy applications from states seeking programs. The Section negotiates work plans and grants with states for UIC activities The UIC Section also manages contract assistance provided to augment resources and administers the Federal UIC program.

(1) Compliance and Enforcement Unit - Responsible for compliance and enforcement in delegated as well as non-delegated states. Initiates enforcement against violators.

(2) Permits Unit - Responsible for the permitting function of the EPA-administered UIC Program in those states which do not have an EPA-authorized UIC Program. Takes the lead in overviewing delegated programs, and coordinating such activities with the compliance and enforcement unit.

REGION IV WATERSHED PROTECTION INITIATIVE GOAL

It is the goal of the Region IV Watershed Protection Initiative to reduce ecological and human health risks in critical watersheds through a holistic watershed management approach.

REGION IV WATERSHED PROTECTION INITIATIVE OBJECTIVES

1. Identify Watersheds and Use Impairments
2. Define Problems, Causes and Sources
3. Develop Control Strategies (i.e TMDLs)
4. Implement Point and Nonpoint Source Controls
5. Develop Indicators of Success
6. Develop Ecological Criteria

REGION IV WATERSHED PROTECTION INITIATIVE
WATERSHED SELECTION CRITERIA

1. Human Health and Ecological Risk
2. Possibility of Additional Degradation
3. Value of the Watershed
4. Likelihood of Success
5. Coordination with Other Agencies
6. Resource Needs (Cost)
7. Data Needs (New vs Existing)
8. Implementability

REGION IV WATERSHED PROTECTION INITIAITVE
IDENTIFICATION OF PRIORITY WATERSHEDS

- 303(d) Lists
- 305(b) Reports
- 304(l) Lists
- 319 Assessment and Management Reports
- NEP Assessments and Action Plans
- Region IV Near Coastal Waters Strategy

REGION IV WATERSHED PROTECTION INITIAITVE
SEQUENCE OF ACTIVITIES

1. Designate a Coordinator
2. Describe Watershed Problems
3. Delineate Scope and Goals
4. Form Region IV Watershed Team
5. Assemble and Evaluate Information
6. Form External Coordinating Committee
7. Maintain Communication

REGION IV WATERSHED PROTECTION INITIAITVE
SEQUENCE OF ACTIVITIES

8. Identify Activities and Milestones

9. Develop a Watershed Management Strategy
   - Form consensus on issues
   - Develop TMDLs
   - Develop action plans
   - Identify data gaps
   - Initiate cooperative efforts
   - Leverage resources
   - Set base program priorities

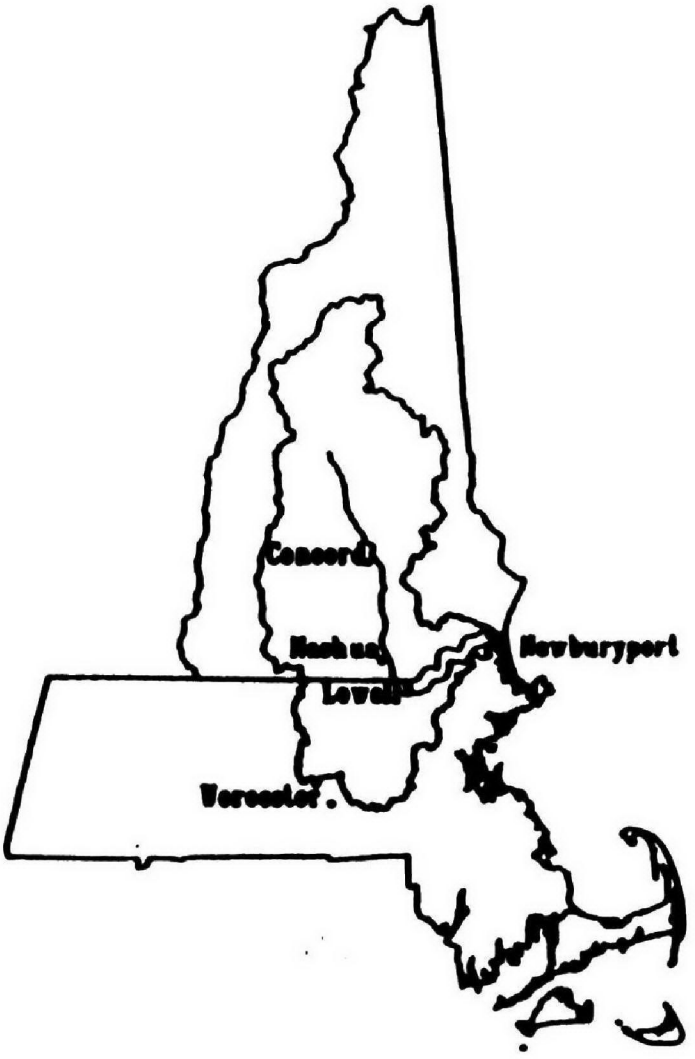
10. Conduct Further Characterization

11. Implement Action Plans

REGION IV WATERSHED PROTECTION INITIATIVE
RESOURCES

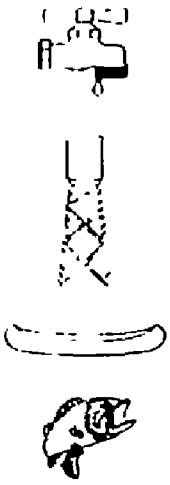
- Near Coastal Waters Program
- 319 Nonpoint Source Grants
- Clean Lakes Program
- Water Quality Monitoring Grants
- Wetland Advanced Identifications
- Coastal America
- Regional Discretionary Funds
- Other Federal and State Agencies

The Merrimack River Initiative



U.S. Environmental Protection Agency
New England InterstateWater Pollution Control Commission
Massachusetts Department of Environmental Protection
New Hampshire Department of Environmental Services

The Resource



The Merrimack River is formed by the confluence of the Pemigewasset and Winnipesaukee Rivers. It flows 118 miles through cities, towns, suburbs, and rural communities from the White Mountains in northern New Hampshire to the Atlantic Ocean at Newburyport in northeastern Massachusetts. The river provides drinking water for over 300,000 people, recreational opportunities, wildlife habitat, fisheries, hydropower and waste assimilation. The Merrimack River watershed encompasses 5,010 square miles and includes all or part of 200 towns in New Hampshire and Massachusetts. 76% of the watershed falls in New Hampshire and 24% falls in Massachusetts.

The Challenge

The Merrimack River watershed faces a variety of threats including:

- occasional discharges of inadequately treated sewage
- industrial and toxic pollution
- urban storm water runoff
- land development resulting in
  - increased demand for water
  - increased density of septic systems
  - increased use of lawn chemicals
  - loss of wetlands and wildlife habitat
- differing state standards and regulations

Much of the federal government's role has been to regulate pollution sources and provide financial assistance for wastewater treatment plants. This has accomplished much in the past 20 years. In the 1960's the Merrimack River was considered among the 10 dirtiest rivers in America. Today, over two decades and one half a billion dollars in Federal and State expenditures later, the river is much cleaner. But the job isn't over. Now, the role of local government is critical. Local land use decisions, local bylaws, and local decision-making form the web of protection for the river and its watershed.. To ensure that the Merrimack River is protected and properly managed, all levels of government (federal, state, local), regional agencies, private interest groups, environmental groups, and the general public must work together.

The Overall Goal of the Initiative:

To restore and maintain the physical, chemical, and biological integrity of the River and its watershed to meet existing and future multiple uses.

Specific goals include:

1) **Protect water supplies and improve water quality**
   - manage existing pollution sources (compliance, enforcement)
   - prevent future pollution (pretreatment, source reduction)
   - protect natural habitats

2) **ate data management and geographic information systems**

3) **mprove coordination**
   - formal agreements
   - work groups and committees
   - outreach and education
   - an annual work plan

4) **Plan for the future of the watershed**
   - emergency response planning
   - water supply planning
   - examining minimum instream flow issues, and
   - managing potentially conflicting uses of the river.

The Solution: A Joint Effort

The Merrimack River Initiative began in 1988 with an agreement between the U.S. Environmental Protection Agency, New Hampshire, Massachusetts and the New England Interstate Water Pollution Control Commission. The initiative serves as a catalyst and a focal point for bringing agencies together on critical issues related to water quality and water supply in the Merrimack River Basin. This initiative allows us to step back and examine the Merrimack River watershed, not as a collection of discharge permits or uction grants, but as a single ecological system. Th ative also is an opportunity to integrate exi programs. A work group, made up of representatives from federal, state and local governments, and regional and citizen groups, was formed to help guide the initiative.

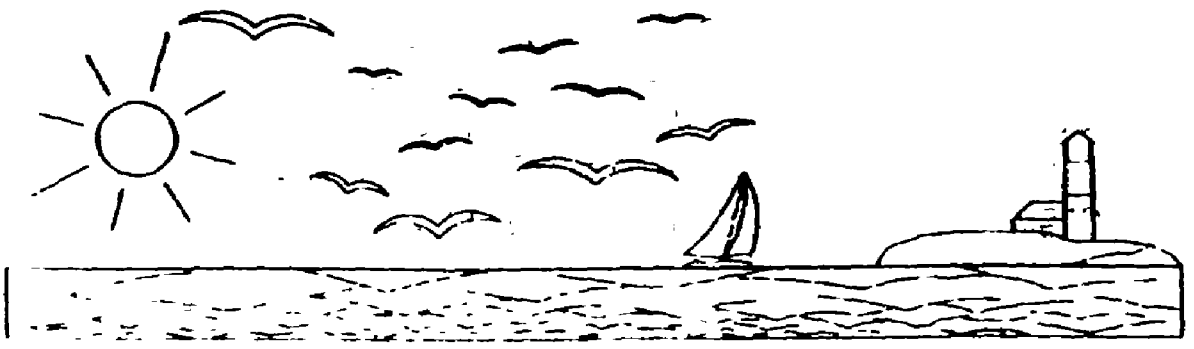
The initiative is broad and multi facetted An annual work plan is prepared to focus the initiative by defining specific objectives to meet the goals. To help coordinate efforts among various agencies and levels of government the Merrimack River Watershed Council prepared a directory of activities in the watershed. EPA will work with the Council to update the directory continually and use it as a vehicle for coordination.

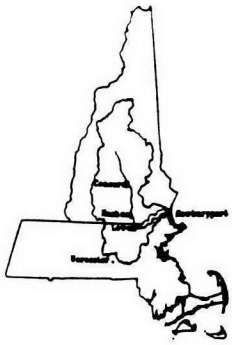
How you can get involved:

There is much to be done and your help is needed.
Does your community have water supply protection bylaws, setbacks along river corridors, household hazardous waste collection ?
Do you practice water conservation ?
Is there a sense of natural resource stewardship in your community?
Do you voice support for water resources management at the state legislature ?
Are you involved in the river watcher network?
There are many possible projects that tie into the initiative - everything from a scout troop project to clean up the river bank to retired citizens doing a land use inventory for aquifer protection.

For information or referral to state , regional or local agencies contact

Merrimack Initiative Coordinator
U.S. Environmental Protection Agency
Region 1, Water Management Division
J.F. Kennedy Building, Boston, MA 02203
(617) 565-3600 or 565-3563





Merrimack River Initiative

Projects Underway at EPA FY 91

March 1991

Tracking discharge data for the 62 major wastewater dischargers

Discharge monitoring reports are reviewed monthly to identify instances of significant non-compliance. A list of violators is produced to identify candidates for enforcement actions. Strategies are developed to return violators into compliance.

Issue Administrative Orders

Based on the list of violators identified above appropriate cases are chosen to issue administrative orders to with compliance schedules.

Tracking the Federal Consent Agreement for Combined Sewer Overflow (CSO) Control in Lowell

The City of Lowell and EPA are negotiating a schedule for completion of the CSO facilities plan, and the design and construction of CSO facilities.

Toxicity Testing on Non-Contact Cooling Water Discharges

The non-contact cooling water discharge from twenty facilities that discharge to the Merrimack River will be tested to evaluate toxicity. As of March, six facilities have been tested. This will assist in prioritizing reissuance of discharge permits and assessing the situation.

Pretreatment

EPA is pursuing approval of industrial pretreatment programs, developing technical base local pretreatment limits, increasing Spill Prevention Control and Countermeasure inspections and holding pretreatment workshops in the Merrimack watershed.

Industrial Pollution Prevention Initiative

EPA has received a pollution prevention grant to demonstrate pollution prevention at industrial facilities, specifically at high tech metal finishers on the Merrimack River. The project will demonstrate methods and incentives for preventing pollution through process change and product substitution.

Community Stormwater Management Project

Based on potential pollutant loading, four communities in the Merrimack Watershed (Lawrence, Methuen, North Andover, and Newburyport) have been selected in which stormwater management plans will be prepared as protoptypes.

Assess Merrimack River Organics Load to Massachusetts Bay

The Massachusetts Bays Program will be funding a project to collect water samples throughout the year (beginning in the summer of 91) and analyze for selected organics, such as PAH or PCB, to estimate loading of organics to Massachusetts Bay. A Request for Proposals was issued in February 1991.

Communication Network for an Emergency Response Plan

EPA will be assisting MA and NH in the preparation of a communication network for an emergency response plan. As a first step MA and NH will be preparing a joint proposal for EPA funding to assist with the project.

Wetlands Mapping in New Hampshire

Identify important wetlands in the 1000 square mile of so. central NH. that was mapped last year using GIS. Work with local conservation commissions in this area to protect important wetlands.

GIS and Data Management

Work with MA, NH and other federal agencies to get land use/land cover mapping for the Merrimack watershed. Continue to explore various GIS applications.

Watershed Management

Develop a watershed management proposal for Merrimack River watershed for FY 92 that includes a new structure for the initiative and directions for watershed management.

For additional information on these projects call Trish Garrigan, Merrimack River Coordinator, U.S. Environmental Protection Agency (617) 565-3563.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J F KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

MERRIMACK RIVER INITIATIVE

Background

The Merrimack River basin is the fourth largest river basin in New England. It drains an area of 5,010 square miles, 76% of it is in New Hampshire and 24% is in Massachusetts. The Merrimack River flows 118 miles from the White Mountains of New Hampshire to the Atlantic Ocean at Newburyport, Massachusetts. It is the drinking water source for over one quarter of a million people. In 1988, the U.S. Environmental Protection Agency, Massachusetts, New Hampshire and the New England Interstate Water Pollution Control Commission signed an agreement to participate in the Merrimack Initiative. The goal of the initiative was to develop an action plan focused on improving and protecting water quality of the Merrimack River System and to implement the recommendations proposed by the action plan. All participants agreed that their collective focused efforts on the Merrimack River would likely result in better identification and implementation of water quality control activities.

A Merrimack River workgroup comprised of representatives from the numerous agencies and organizations with responsibilities and interest in the restoration, protection and preservation of the Merrimack River was established. This work group provides a forum to exchange information and coordinate initiative activities.

With very limited resources, the Merrimack River workgroup has influenced accomplishment of numerous environmentally important activities. Such as:

- New Hampshire passed the Rivers Management and Protection Act and designated several Merrimack river segments under the act for protection and study

- Massachusetts Department of Environmental Protection completed a report entitled "A Massachusetts Merrimack River Water Supply Protection Initiative" The document is a compilation of existing data and information used to assess the relative impacts of various pollutant sources to the river.

- The Merrimack River Watershed Council completed a video and a draft of the Merrimack River Directory. This directory includes descriptions of over 130 projects going on in the watershed.

- EPA focused water and wetland enforcement efforts in the Merrimack Basin and completed toxicity testing of each major discharge to the Merrimack River

- Nine major municipal and industrial permits were issued, many containing toxic limits, and toxicity testing requirements

- EPA completed a geographic information system ground water resources mapping effort in the Nashua Regional Planning Area

PRINTED ON RECYCLED PAPER

The Initiative

During the 1990's there will be a increasing constraints on the Merrimack River System with each new drinking water withdrawal, with dam drawdown, with increasing need for waste assimilation and increases in recreational use of the river. Water quality is no longer the only issue to be addressed. The challenge that faces initiative participants is to look beyond the river to the entire watershed, to consider water supply and water use issues, to explore non-regulatory controls as well as regulatory, and to work closely with local and regional governments.

The overall goal of the initiative is.

> **To restore and maintain the physical, chemical, and biological integrity of the watershed and river system to meet existing and future multiple uses (drinking water supply, waste assimilation, hydropower, recreation, wildlife habitat and flood control).**

Specific goals are developed on a continuing basis to address threats or fulfill needs to meet the overall goal For 1990 - 1992 the following goals have been identified

1 Protect water supplies and improve water quality of the Merrimack River through managing existing pollution sources (compliance, enforcement, pretreatment) and preventing future sources of pollution.

2 Focus efforts on integrating a data management system and geographic information system. Setting up a mechanism to ensure information transfer

3 Improve coordination among federal, state, regional and local agencies by developing formal agreements, establishing additional work groups; doing outreach, and preparing the annual action plan

4 Plan for the future of the watershed. This will include: emergency response planning, water supply planning, examining minimum instream flow issues, and examining potentially conflicting uses.

Specific objectives to meet these goals will be listed in the action plan which is currently under preparation.

The initiative serves as a catalyst and focal point for bringing the states of Massachusetts and New Hampshire as well as federal, regional and local agencies together on critical issues related to water quality and water supply in the Merrimack River Basin

For more information on the Merrimack Initiative, please call Bob Mendoza (617) 565-3600 or Trish Garrigan (617) 565-3563 at the U.S Environmental Protection Agency in Region 1, Boston, MA.

OWOW National Program Meeting

Region I
Bill Butler
David Fierra
Bart Hague
Ron Manfredonia
Rosemary Monahan
Don Porteous
Douglas Thompson

Region II
Daniel Montella
Mario Del Vicario
Robert Vaughn

Region III
Charles App
Victoria Binetti
Barbara D'Angelo
John Forren
Richard Pepino
Randy Pomponio

Region IV
Wesley Crum
Doug Lipka
Mike McGhee
Tom Welborn

Region V
Thomas Davenport
Doug Ehorn
Ken Fenner

Region VI
Russell Bowen
Beverly Ethridge
Richard Hoppers
George Horvath

Region VII
Larry Ferguson
Kerry Herndon
Diane Hershberger

Region VIII
Dale Vodehnal

Region IX
Loretta Barsamian
Catherine Kuhlman
Philip Oshida
Tom Young
Amy Zimpfer

Region X
Ron Lee
Michael Rylko
Richard Sumner
Tom Wilson

Headquarters
Tom Armitage
Don Brady
Rick Brandes (OWEC)
William Brandes
Trevor Clements (North Carolina)
Mark Curran
Joseph Davia
Tudor Davies (OST)
David Davis
Steve Dressing
Glenn Eugster
Rod Frederick
Mike Fritz
Will Garvey
John Goodin
Geoffrey Grubbs
Joe Hall
James Hanlon (OST)
Elizabeth Jester
Karen Klima
John Lyon (OE)
Menchu Martinez
John Meagher
Jeanne Melanson
Marian Mlay
Steve Neugeboren (OGC)
John Pai
Greg Peck
Cliff Rader
Suzanne Schwartz
Mary Lou Soscia
Betsy Southerland (OST)
Craig Vogt
Robert Wayland
Dov Weitman
Lori Williams
Catherine Wimer (OGC)
Louise Wise

NOAA
Trudy Coxe

Office of Wetlands, Oceans and Watersheds

National Program Meeting

AGENDA
QUICK REFERENCE

Prelude, Monday Evening, July 29

5:30 - 9:00 pm	Registration/Reception	*Salon C*

Day One, Tuesday, July 30

8:30 - 12:00 pm	OWOW Joint Session	*Salon C*
12:00 - 1:30 pm	Lunch with Keynote Speaker: Trevor Clements	*The Hardware Store Restaurant*
1:30 - 5:30 pm	OWOW Joint Session	*Salon C*
6:30 pm	Social Hour & Group Buffet Dinner Keynote Speaker: Trudy Coxe	*Atrium Room*

Day Two, Wednesday, July 31

8:30 - 11:45 pm	OWOW Joint Session	*Salon C*
11:45 - 12:45 am	Lunch, *on your own*	
12:45 - 5:30 pm	Breakout Sessions AWPD/OST Joint Session from 12:45-5:30 pm OCPD/AWPD/OST Joint Session from 4:30-5:30	*Meeting room assignments will be posted.*

Day Three, Thursday, August 1

8:30 - 10:30 pm	Breakout Sessions AWPD/OST Joint Session from 8:00 - 11:00 am	*Meeting room assignments will be posted.*
10:30 - 12:00 pm	OWOW Joint Session - Wrap-up	*Salon C*
12:00 - pm	Breakout Sessions OCPD/WD Joint Session from 1:00 - 2:00 pm	*Meeting room assignments will be posted.*

Day Four, Friday, August 2

8:30 - 12:30 am	Breakout Sessions OCPD and WD only	*Meeting room assignments will be posted.*

RICHARD G. HOPPERS, P.E.
CHIEF, WATER QUALITY MANAGEMENT BRANCH
REGION 6

While in high school, I worked for a consulting engineer and decided to pursue a career in civil engineering. In pursuit of this goal, I graduated from Texas A&M.

After graduation I was commissioned into the U.S. Army Artillery, where I spent time as a forward observer, fire direction officer and Battery executive officer. This was where I really learned to appreciate the comforts of civilization without wild animals trying to share my food and sleeping bag.

After the celebration of being released from active duty, I went back to the consulting engineering business (racket). While there, I worked with cities in planning, designing and constructing, water and wastewater treatment facilities.

While working as a consultant, I decided I wanted to get more involved in the environmental area and also move to the federal sector. So, in 1966, I went with the Federal Water Pollution Control Administration in Dallas, working in the Construction Grants Program.

In 1969, I left the federal service to join Electronic Data Systems (EDS) owned by Ross Perot. While working for EDS I did some engineering work, had a very large exposure to the computer industry and did not see much of my family. I gained about four years experience in the two years I was there, working in Minneapolis, New York and Dallas.

In 1971, I returned to EPA Region 6 to the construction grants program. This program was then gearing up big time and was very exciting, working with cities, consultants, contractors, equipment suppliers and the public to build wastewater treatment facilities. I was involved in the transition of the program from an EPA grant program to a delegated state grant program, to the state revolving fund loan program. It was during this time that I received an M.B.A. from Southern Methodist University.

In August of 1990, I moved to the Water Quality Management Branch in Region 6. Programs in this branch include water quality standards, water quality management activities, nonpoint source, the marine & estuarine programs, and I am enjoying it.

My wife Suzanne(1st grade teacher) and I have two boys, a college senior and high school junior who are both in all sorts of activities (all legal). Our family activities include Church, sailing, backpacking, camping and paying bills.

BEVERLY ETHRIDGE

Chief, Technical Assistance Section, Region 6

Educational Background: BS Biology University Southern Mississippi (USM)
MS Environmental Planning (USM)
Related Graduate Work - Mississippi State Univ; GA State Univ.

Work Background: Served as the Environmental Coordinator for the Stennis Space Center, Bay St. Louis, until 1978; involved with broad array of environmental issues - from mosquitoes to wetlands for waste processing.

Joined EPA in 1980 in its Wetlands Program, Region IV office. Spent 1987 through first of 1991 in the world of Nonpoint Source, including a detail to Washington where I co-authored national guidance linking NPS/Wetlands program activities. Served on a number of Task Forces, Workgroups, etc., including, most recently, co-chairing subgroup to prepare CZMA-NPS management measures.

In May, 1991, moved to Region 6 as Chief of its Wetlands program.

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

JUL 29 1991

OFFICE OF WATER

MEMORANDUM

SUBJECT: Proposed OWOW Regional Program Review

FROM: Robert H. Wayland III, Director
Office of Wetlands, Oceans and Watersheds

TO: Regional Water Management Division Directors
Regional Environmental Services Division Directors
Assistant Regional Administrator
for Policy and Management, Region VII

As you may know, we recently conducted a survey of your staff on how we can improve our services to you. Their responses were candid, thoughtful and constructive. One of the recommendations your staff made in responding to the survey was that we should reinitiate the Regional program review process. We agree and, for this reason, would like to share with you our thoughts on a proposed process.

We propose that OWOW managers visit every Region over the next 18 months in teams that would be comprised of representatives from each of OWOW's Divisions. The primary purpose of these visits would be to provide an opportunity for early consultation on how to improve services, identify successes to export to other Regions, and to evaluate overall strengths and weaknesses. Each team would be led by a Division Director who would oversee arrangements with the Region and the preparation of a report following the visit. Dave Davis or I would personally accompany the team for several of these visits (particularly visits to the lead and sublead Regions).

In large part, we would rely on OWAS as a guide in conducting discussions during these visits, but would also take the opportunity to review issues of concern not reflected in OWAS when appropriate.

Attached is a more detailed outline of the process I am proposing. Please review and let me know if you have comments or concerns by August 20. We would like to begin the process in September 1991.

Attachment

Printed on Recycled Paper

Proposed OWOW Regional Program Review Plan for FY91/92

1. The purpose of the review will be to provide an opportunity for early consultation and an exchange of ideas and perspectives on how to improve services, identify successes to export to other Regions, evaluate overall strengths and address weaknesses.

2. It is our intention to visit each Region once every 18 months and to examine all OWOW programs at each visit.

3. The Regional Review Team will be led by a Division Director with members from the other two Divisions and the Immediate Office as appropriate. For example, OCPD may not want to visit Regions 7 and 8.

4. The Team leader will have the following responsibilities:

   - Set up the schedule and agenda with the host Region and the Team members. The agenda should be based in large part on OWAS.

   - Hold pre-visit meeting with OD/DOD and Team members on the specifics of the visit.

   - Conduct the visit with Team members and synthesize information from program reviews.

   - Brief the OWOW managers in staff meeting on results of the visit.

   - Coordinate with the DDs in responding to OWOW issues raised by the host Regions.

   - Prepare review report, including OWOW responses to issues raised by the host Region, and success and opportunities for improvements in OWOW and the host Region.

   - Distribute the report to OD/DOD, DDs and the host Region within 2 weeks after the visit for comments. The final report will also be provided to OW for use by AA/DAA.

5. The Team members will have the following responsibilities:

   - Support the Team leader as requested or necessary.

   - Work with their respective DD and Regional counterparts to identify potential issues for agenda items.

   - Conduct program review, take notes and exchange information.

   - Brief their respective DD upon return from the visit.

- Assist the Team leader in the preparation of the review report.

6. OD/DOD will visit 3-5 Regions with the DDs in the next 6 months beginning in September 1991.

7. OD/DOD will not participate in the program review sessions, but will engage with the Regions in discussing broad OWOW/Regional issues and will meet with the DD and Team at the end of the visit to review conclusions.

8. To maintain some consistency for reporting improvements within OWOW and across the Regions over time, we need to define measurements and use this year to establish the baseline.

   The suggested categories for measurements are:

   - For OWOW measurements - services to the Regions

     Use the customer survey results.

   - For Regional measurements - reducing risks in watersheds

     Use program measurements in OWAS/SPMS/STARS and other environmental measures (We will need to know the extent to which these measurements reflect actual risk reduction and the extent to which new or different measures should be used).

9. It is the intent of OWOW to keep this process as streamlined and time-efficient as possible. Unnecessary paperwork, meetings and briefings should be avoided.

The Hardware Store Restaurant and Soda Fountain

Lunch Selections

$7.95 (plus tax, gratuity)

You will be expected to pay for lunch at the restaurant.

Spinach Salad

Mushrooms, Bacon, Onion, Hard Boiled Egg

Deli Bistro Plate

Potatoe Salad, Cole Slaw and choice of one:

Smoked Turkey
Roast Beef
Tuna Salad
Shrimp Salad

Served with dinner -- rolls, coffee, and iced tea. Desserts will also be served.

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25-Jul-91

FY 1992 OWOW RESOURCES

	FY 1991		FY 1992 CURRENT		FY 91 - 92	
	91FTE	91$ EXT	FTE	$ EXT	FTE	$ EXT
TOTAL REGIONS	549.1	61,655.8	594.6	45,374.1	45.5	(16,281.7)
WQ MONITORING & ANALYSIS: REG	127.9	260.0	127.9	0.0	0.0	(260.0)
WQ MANAGEMENT: REG	88.2	7,060.0	101.7	0.0	13.5	(7,060.0)
NPS IMPLEMENTATION: REG	0.0	0.0	0.0	0.0	0.0	0.0
ODBA	6.0		6.0		0.0	0.0
GREAT LAKES PROGRAM	45.4	13,223.7	47.4	9,523.7	2.0	(3,700.0)
CHESAPEAKE BAY PROGRAM	12.0	14,748.8	12.0	14,748.8	0.0	0.0
OCEAN DISPOSAL PERMITS: REG	33.9	2,887.6	33.9	2,387.6	0.0	(500.0)
COASTAL ENVIR. MNGMT: REG	105.9	19,453.7	119.9	18,174.0	14.0	(1,279.7)
WETLANDS PROTECTION: REG	129.8	4,022.0	145.8	540.0	16.0	(3,482.0)
TOTAL HEADQUARTERS	143.8	25,871.6	148.8	41,854.3	5.0	15,982.7
WQ MONITORING & ANALYSIS: HQ	28.6	5,894.1	28.6	6,115.1	0.0	221.0
WQ MANAGEMENT: HQ	25.0	2,197.0	25.0	4,322.0	0.0	2,125.0
NPS IMPLEMENTATION: HQ	0.0	2,550.0	0.0	0.0	0.0	(2,550.0)
ODBA	4.0		4.0		0.0	0.0
OCEAN DISPOSAL PERMITS: HQ	16.4	4,519.3	16.4	3,069.3	0.0	(1,450.0)
COASTAL ENVIR. MNGMT: HQ	38.7	8,795.2	41.7	22,474.9	3.0	13,679.7
WETLANDS PROTECTION: HQ	31.1	1,916.0	33.1	5,873.0	2.0	3,957.0
TOTAL GRANTS		59,283.0		32,250.0		(27,033.0)
CLEAN LAKES GRANTS		7,083.0				(7,083.0)
NPS GRANTS	0.0	47,200.0	0.0	23,750.0	0.0	(23,450.0)
WETLANDS GRANTS	0.0	5,000.0	0.0	8,500.0	0.0	3,500.0
GRAND TOTAL OWOW	692.9	146,810.4	743.4	119,478.4		

*** FY 1991 Column reflects transfer of resources from Headquarters to the Regions as of third quarter FY 1991.**

**** FY 1992 Column reflect redirections from the President's Budget Request.**

Highlights of FY 1992 House and Senate Appropriation Action

House Bill

Report Language

- Committee is aware of inadequate staffing for the Non-Point Source program and has directed the agency to reprogram 10 FTE and $550,000 (S&E) to implement this program. This reprogramming shall be taken from elsewhere within the Office of Water at the Administrator's discretion.

- Although funds were requested for implementation of Non-Point Source program in the AC&C account, no FTE were requested. The Committee believes that funds in the AC&C account should be used for grants to states rather than administrative expense purposes. The level the Committee has made available is barely sufficient and providing scarce funding for S&E activities only serves to exacerbate the problem.

- The Committee believes that EPA should request the appropriate resources needed for this program from within the S&E account. Until this year, no request has been made to use funds for S&E under the Non-Point Source program. The Committe sees no need to begin this practice now as this can only compromise the integrity of the account structure.

Congressional Add-ons

- +$27 million for non-point source grants.
- +$8 million for the clean lakes program.
- +1 million for controlling erosion and sedimentation in the Great Lakes Basin.
- +$3 million for the San Francisco estuary project.
- +$300,000 for environmental efforts at the Canaan Valley, West Virginia wetlands complex.
- +$900,000 for cleanup of contaminated sediments in the Buffalo River.
- +$1 million for the cleanup and protection of the Saginaw River Basin and Bay.
- +$500,000 for the development of a water quality protection plan for the Florida Key's National Marine Sanctuary.
- +$100,000 for the development of a national model of Eugene, Oregon wetlands comprehensive plan.

Senate Action

Report Language - Salaries and Expenses

- The Committee reduced the budget for salaries and expenses by $61 million. (The Committee provided increases for implementation of the Clean Air Act, locality pay and the 1992

pay raise. All other activities are frozen at the 1991 levels).

- The Committee directs the Agency to provide such sums as are necessary to establish and staff the Long Island Sound Program Office.

- The Committee is interested in EPA's efforts to explore the concept of sustainable development. In particular, the Committee is interested in how environmental concerns can best be incorporated in national, State, and local development and economic planning and decision making processes. The Committee directs EPA to provide a report by July 15th, 1992, which describes in detail how EPA has incorporated, or plans to incorporate, the concept of sustainable development into the Agency's operations.

Report Language - Abatement, Control and Compliance

- The Committee is concerned with recent reports that the Agency has not taken a more proactive approach to the Chesapeake Bay cleanup effort, and has not proposed more initiatives. The Committee urges the Agency to make the Bay cleanup effort a higher priority. The Committee directs EPA to provide not less than the full budget requested for the Chesapeake Bay program.

Congressional Add-ons

- +$28 million for nonpoint source pollution control grants, for a total of $51,750,000.
- +$1 million for the continuation of a storm water management demonstration project on the Patuxent River.
- +$500,000 to initiate two major enhancements to the three dimensional time-variable water quality model of the Chesapeake Bay to include an oil spill and a sediment transport component.
- +$750,000 to initiate pollution reduction strategies in the Tar Pamlico River basin.
- +$1,450,000 to continue the nonpoint source pollution project at the University of Kansas, Iowa State University, and the University of Nebraska at Lincoln.
- +$750,000 for the Illinois River basin nonpoint source program.
- +$2 million for dredge spoil assessment and decontamination, to develop techniques to clean sediments from dredging prior to disposal.
- +$1,750,000 for the Lake Champlain management conference.
- +$750,000 for the cleanup of Lakes Allatoona and Lanier, GA.
- +$700,000 for lake water quality activities by the State of New Jersey, including such activities as Cranberry Lake, Lake Waywayanda, Lake Marcia, Sylvan Lake, or other lakes the State deems appropriate.
- +$1,750,000 for the Lake Onondaga management conference.

- +$500,000 for the development of a water quality recovery plan for Lake Roosevelt.
- +$1,250,000 for Long Island Sound Program Office, to establish the office and to continue the public education and outreach efforts of the Long Island Sound Study; and for grants to the States of Connecticut and New York for completion of the Long Island Sound water quality and water circulation computer model.
- +$2 million for the cleanup of the San Francisco Estuary.
- +$750,000 for the Florida Keys National Marine Sanctuary.
- +$100,000 to document and package the Eugene, OR, wetlands study and make it available to other jurisdictions.
- +$150,000, to be divided between the environmental agencies of the States of Vermont and New Hampshire, to work in cooperation with EPA to accelerate water quality work on the Connecticut River.
- -$6 million from coastal America...The Committee supports the administration's proposal to initiate an interagency coastal program to maximize the benefits of the various ongoing Federal coastal programs. However, the Committee has not provided $6,000,000 for the coastal America initiative in EPA's budget due to severe budget constraints. Furthermore, the Committee believes the agencies with a coastal protection mandate currently have the resources required to undertake the type of activities envisioned by the coastal America initiative. The Committee directs EPA to coordinate those coastal programs funded in this bill with these other Federal agencies to ensure that coastal living resource protection and management projects move forward in a coordinated, cost-efficient, and comprehensive fashion.
- The Committee has deleted the following items added by the House: $8,000,000 for clean lakes; $1,000,000 for controlling erosion and sedimentation in the Great Lakes basin; $300,000 for the Canaan Valley wetlands complex; $1,000,000 for the Saginaw River and basin; and $25,000 for a water quality testing program of the Lackawanna River Corridor Association.

1993 BUDGET PROCESS

- A workgroup was formed to develop a process that would:
  - to increase participation in budget development.
  - emphasize cross Agency initiatives.
  - make resource decisions earlier.
- At the end of April, the four media programs met with the Administrator to discuss their vision of FY 1993.
- In the beginning of May, the Regional Administrators and Assistant Administrators met with the Administrator to discuss cross Agency priorities.
- These meetings resulted in:
  - 43 cross Agency initiatives.
  - a request for Regional geographic initiatives.
  - target numbers were provided to NPMS. Leads were given for cross Agency initiatives.
- The Office of Water was lead for nine of the 43 initiatives:
  - Geographic Initiatives - Chesapeake Bay, Great Lakes, and Gulf of Mexico.
  - Programmatic Initiatives - Wetlands, Nonpoint Source, and Coastal Resource Protection (Estuary Program).
  - Grant and Regulatory Initiatives - Groundwater Cluster, Pulp and Paper Cluster.
  - Legislative Initiative - Clean Water Act Reauthorization.
- The Office of Water participated in a myriad of other initiatives:
  - Caribbean, Pollution Prevention, Indian Programs, and Data Management.